

(No Model.)

D. BRUNO.
TRAMMEL POINT.

No. 493,062.

Patented Mar. 7, 1893.

Fig. 1.

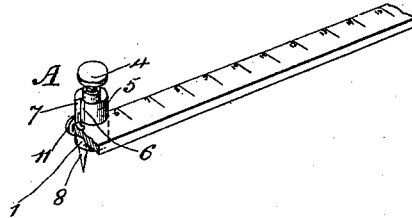


Fig. 2.

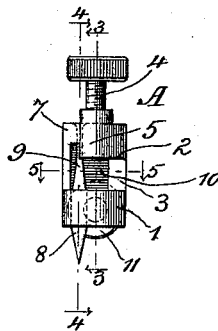


Fig. 3.

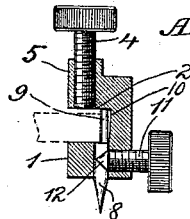


Fig. 4.

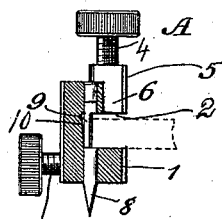
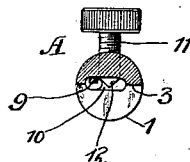


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

DÉSIRÉ BRUNO, OF AVONDALE, ILLINOIS.

TRAMMEL-POINT.

SPECIFICATION forming part of Letters Patent No. 493,062, dated March 7, 1893.

Application filed August 23, 1892. Serial No. 443,913. (No model.)

To all whom it may concern:

Be it known that I, DÉSIRÉ BRUNO, a citizen of the United States, residing at Avondale, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Trammel-Points; 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.

This invention relates to a novel construction in a trammel-point, and consists in the features of construction and combinations of parts hereinafter fully described and specifically claimed.

In the accompanying drawings illustrating my invention,—Figure 1 is a perspective view of the same attached to a ruler. Fig. 2 is a front elevation. Figs. 3, 4 and 5 are sectional views taken respectively on the lines 3—3, 4—4 and 5—5 of Fig. 2.

Referring now to said drawings, A indicates as a whole my improved trammel-point which consists of a frame or body piece 1 having a notch or open slot in its front face, as indicated by 2. Said notch or open slot is parallel with the top and bottom sides of the body piece 1, while the rear wall 3 of said notch or open slot 2 is straight, so that when the trammel-point is applied to a ruler or other straight edge it will fit nicely thereon and will be capable of being slid back and forth upon such straight edge in an obvious manner. For the purpose of holding said trammel-point upon a ruler or other instrument, a set screw 4 is located within a screw-threaded opening in the body piece 1 above the notch or open slot 2 so that it can be screwed down to hold the trammel-point, as will be clearly seen. The portion of the body piece 5 above and overhanging the notch or open slot 2, and through which the set screw 4 passes, is cut away at one side to provide two angular faces 6 and 7, said face 7 being located in the same plane as the rear wall 3 of said notch or open slot, while the face 6 is preferably located at a right angle thereto. The point or pin 8 projects at the bottom of said body piece 1 and is normally located so that its point stands in alignment with the rear wall 3 of said notch or open slot and also in alignment with the angle formed by the faces 6 and 7 of the over-

hanging portion 5 of the body piece, so that when said trammel-point is secured to the edge of a ruler the point of the pointer will be in alignment with the edge of the ruler and the said angle formed by the faces 6 and 7 will serve as a gage, for it will be noted that at whatever point said angle between the faces is located, the point of the pointer or pin 8 will be directly below the same, so that great particularity and preciseness are possible in the employment of a trammel-point of this construction.

As a further and separate improvement in trammel-points I make the pointer or pin 8 adjustable. To secure this end the said pin 8 is carried by a spring piece 9 which passes through a recess 10 in the body piece and which forms an extension of the slot or notch 2 and is secured at its upper end to the upper portion of the body piece. The free end portion of said pointer is located within a slot 10 and lower portion of the body piece, which slot is located parallel with the rear wall of the slot or notch 2, so that when the said pointer or pin is moved within the slot its point will always move parallel and below the rear wall 3 or the angular face 7 of the body piece, and will at all times therefore be below the edge of the ruler or piece to which it may be attached. The device for moving said pointer or pin consists of an adjusting screw 11 that passes through an opening in the body piece adjacent to the slot 10 and is provided with a tapered end 12 adapted to enter the said slot 10 and engage the pointer or pin 8. As shown in Fig. 5 the tapered end of said adjusting screw is located within the slot and has pressed the pointer or pin 8 to one end of the slot, and this is the normal position in which said pin will stand, and when in this position its point will be directly in alignment with the angle formed by the faces 6 and 7 of the body piece. It will thus be seen that when the trammel-point is being used to obtain very fine measurements that, instead of changing the position of the trammel-point upon the ruler, by means of the set screw 4, a much finer and quicker adjustment can be made by simply turning the adjusting screw to withdraw its tapered end 12 from the slot 10, whereupon the said pointer or pin will move toward the other end of the slot under

the influence of the spring arm or piece by which it is held, which at all times keeps the pointer under tension and tends to move it toward the other end of the slot.

5 It will, of course, be understood that my invention can be used for various purposes in making measurements, drawing circles, striking tangents and segments and various other measurements, and I will therefore not proceed to describe these several uses to which
10 it can be put, as the same will be obvious to persons who will use the same.

It will, of course, be understood that a piece of lead or other marking device can be inserted within the slot 10 and can be held there-
15 in by screwing the tapered end of the adjusting screw against the same to hold it in position, and thus the device can be used to mark a circle.

20 I claim as my invention—

1. A trammel-point comprising a body piece having a notch or open slot in the side thereof, a set screw having its end located to pass into said notch or open slot, and a pointer or
25 pin secured to said body piece and having its point or tip located in alignment with the rear wall of said notch or open slot.

2. A trammel-point comprising a body piece having a notch or open slot in the side thereof, a set screw passing through the overhang-
30 ing portion 5 formed by said notch or slot, a straight plane face 6 upon said overhanging portion 5 and a pointer or pin secured to said body piece and located in alignment with said
35 face 6.

3. A trammel-point comprising a body piece having a notch or open slot in the side thereof, a set screw 4 in the overhanging portion 5
40 formed by said notch or open slot, said overhanging portion 5 being cut away to provide two angular faces 6 and 7, and said face 7 be-

ing located in the same plane with the rear wall 3 of said notch or open slot, and a pointer or pin secured to said body piece and located beneath and in alignment within the juncture
45 of the said angular faces 6 and 7.

4. A trammel-point comprising a body piece provided with devices for attaching the same to a bar or other instrument, and a pointer or
50 pin located within a slot in said body piece and carried by a spring arm or piece 9 secured to said body piece, and devices for moving said pointer or pin within said slot against its spring tension.

5. A trammel-point comprising a body piece
55 provided with devices for attaching the same to a rod or analogous instrument, a pointer or pin 8 located within a slot 10 in said body piece and carried by a spring piece or arm 9 secured to said body piece, and an adjusting
60 screw provided with a tapered end 12 located within a screw-threaded opening adjacent to the slot 10 and adapted to engage the said pointer or pin 8.

6. A trammel-point comprising a body piece
65 having an open slot in one side thereof, and provided with devices for attaching the same to a rod or analogous instrument, a pointer or pin 8 located within a slot 10 and carried by a spring piece or arm 9 secured to said body
70 piece, said slot 10 being located parallel with the rear wall of the notch or open slot in the side of said body piece, and devices for moving said pointer or pin 8 within the slot against the tension of the spring piece or arm 9.
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In testimony whereof I affix my signature in presence of two witnesses.

DÉSIRÉ BRUNO.

Witnesses:

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