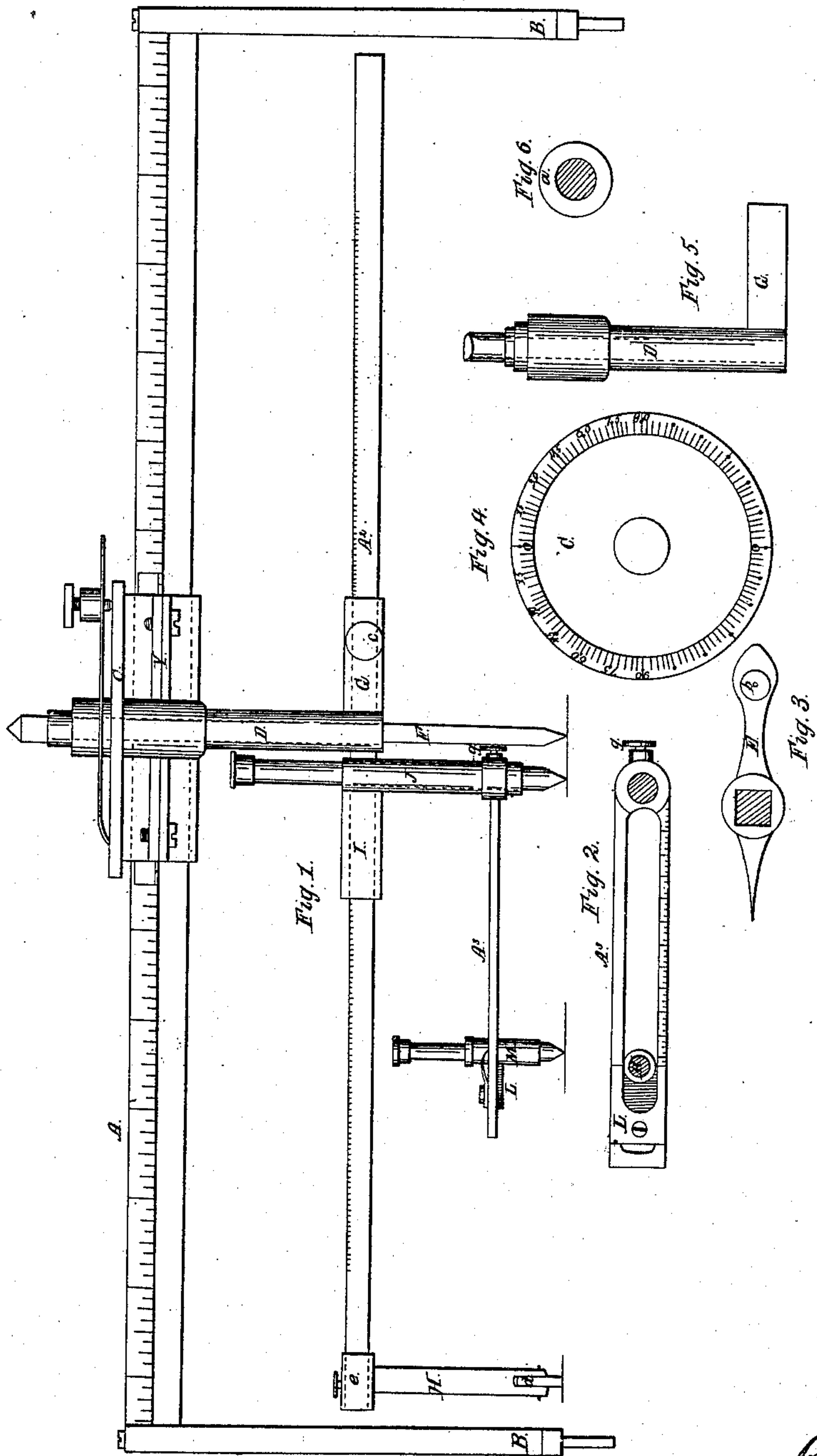


J. P. JAMISON.
DRAWING INSTRUMENT.

No. 32,566.

Patented June 18, 1861.



Witnesses.

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JOHN P. JAMISON, OF NEW YORK, N. Y.

DRAWING INSTRUMENT.

Specification of Letters Patent No. 32,566, dated June 18, 1861.

To all whom it may concern:

Be it known that I, JOHN P. JAMISON, of New York, in the county and State of New York, have invented, made, and applied to
5 use a new and Improved Instrument for Drawing and Ruling; and I do declare the following to be a full, clear, and correct description thereof, reference being had to the accompanying drawings, and to the letters
10 of reference marked thereon, in which—

Figure I. is a front view of my improved drawing instrument; Fig. 2. a view of the slotted bar A^3 ; Fig. 3. a view of the pointer of the indicating apparatus; Fig. IV. a view
15 of the circular plate of the same; Fig. V. a view of the tube D with the case A attached; Fig. VI. a view of nut for confining pointer upon the tube D.

In the drawings like parts of the invention are designated by the same letters of
20 reference.

The nature of my invention consists in the construction and operation of an instrument for drawing and ruling, to be used by drafts-
25 men, architects, engineers and others, by the use of which, the ordinary square, "straight edge" divides, oblique and radiating rules may be dispensed with.

To enable those skilled in the arts to make
30 and use my invention I will proceed to speak of the construction and operation of the same.

Construction.—A shows a beam supported by the uprights B B placed at each end of
35 the same. This beam A may be made of wood or metal, of any desired length and may be divided into a scale of inches and parts of inches, by dots or lines stamped or engraved at the proper distances from each
40 other upon it.

Y shows a sliding piece, formed of metal, which moves freely upon the beam A and is held in any required position by means of a set screw passed through it and bearing
45 against the beam A. This sliding piece Y has cast directly upon, or attached in any desired manner to, its upper surface, the circular plate of metal C, of the indicating apparatus, having stamped or engraved upon
50 it, the degrees of the circle, while upon the back of the sliding piece Y is cast or attached the hollow metallic tube D which tube D projects through and above the circular plate C.

55 E shows the pointer of the indicating apparatus, formed like the hand of a clock, and

fitted snugly upon the tube D to which it held by means of the nut a , in such a manner that it may be readily revolved, while it held firmly in any desired position by means of the screw-point b attached to one end of it. I would here remark that this pointer governs and determines the position occupied at any time by the pencil holder hereinafter described. Through this tube passes or is introduced the center point l having its bearing directly upon the paper tracing muslin or other material employed.

G is a case, attached to the lower portion of the tube D, in which is inserted the beam A^2 divided in a similar manner as the beam A into inches and parts of inches: this beam A^2 is adjustable and may be retained in an
desired position by the set screw c .

H shows a foot with a roller d and with hollow projecting head e , which is placed upon the beam A^2 at either end and aids materially in the smooth and ready passage of the same, over the paper, tracing muslin or other material employed.

I shows a tubular slide, placed upon the beam A^2 , upon the back end of which is cast or attached the pencil holder J, intended to receive the pencil, pen or point. To the lower end of this pencil holder J is attached by means of the set screw g , the slotted beam A^3 , divided into a scale of inches and parts thereof, engraved thereon.

L shows a slide provided with a pencil holder M, in which is inserted a pencil, pen or point and which pencil holder M is moved to and fro upon the beam A^3 .

Operation.—The instrument being thus constructed may be attached to a drawing board at any particular part of the same, by pins, and the paper, tracing muslin or other material employed is placed and held upon the drawing board in the ordinary manner. In order to form straight lines by the instrument the pointer E is revolved until it reaches the zero or beginning point before the circular plate C, by which movement, the beam A^2 is placed at right angles to the beam A. The sliding piece Y is then moved to the right or left upon the beam A and the pencil, pen or point, inserted and held in the pencil holder J, marks upon the paper, tracing muslin or other material employed, as it passes over the same, a straight line, corresponding in length to the distance in inches and parts of the same traversed by the sliding piece Y upon the beam A. If de-

sired to form a second horizontal or parallel line, or any number of parallel lines, at a given distance from each other or from the first line marked upon the paper, tracing muslin or other material employed, the slide I is moved the desired distance in inches and parts of the same upon the beam A^2 and the operation first described is repeated. When it is desired to mark perpendicular lines, the operation is performed by retaining the parts first named in the same position and moving the slide I with the pencil holder J to and fro upon the beam A^2 : the length of the line thus marked is determined by the distance in inches and parts of inches, traversed by the slide I upon the beam A^2 . When desired to form a second perpendicular line or any number of them at a given distance from each other or from the first line marked, the sliding piece Y is moved the desired distance upon the beam A and the operation first described of the slide I is repeated. In the formation of oblique lines at any given angle, the pointer E of the indicating apparatus is placed opposite the desired degree upon the circular plate C: by this movement of the pointer E upon the circular plate C, the beam A^2 is brought into a corresponding angle and the line is marked upon the paper, tracing muslin or other material employed, by moving the slide I to which is attached the pencil holder J, to and fro upon the beam A^2 , the length of the lines marked, being determined by the number of inches and parts of inches traversed over by the slide I upon the beam A^2 , while the distance between them may be governed by moving the sliding piece Y upon the beam A. In order to form radiating lines, the sliding piece Y is placed at the center of the beam A and held in position by a set screw. The pointer E is then revolved until it points to the zero or beginning point, upon the circular plate of metal C, the beam A^2 being thus placed at right angles to the beam A. The first line is then marked upon the paper, tracing muslin or other material employed, by moving the slide I upon the beam A^2 the distance desired for the length of the line and the operation is repeated, the pointer E being revolved until it indicates upon the circular plate C the exact degree of obliquity desired to give to the line drawn. In forming larger circles, the sliding piece Y is placed in the center of the beam A and retained in this position by

a set screw. The center point F thus forms a center, around which, the beam A^2 to which is attached the pencil holder J by slide I, is revolved and the pencil, pen or point, marks upon the paper, tracing muslin or other material employed, a circle, the diameter of which may be determined by moving the slide I one half the required diameter in inches and parts of the same from the center point F upon the beam A^2 . To form any part of a circle, the parts should be retained in the same position and the beam A^2 to which is attached the pencil holder J is revolved until the pointer E indicates upon the circular plate C the requisite number of degrees. In making circles requiring a different center, I employ the beam A^3 constructed as described, the pencil, pen or point placed and held in the pencil holder J forming a center, around which is revolved the pencil, pen or point placed and held in the holder M, forming a circle, the diameter of which may be determined by moving the slide I, one half the required diameter in inches and parts of the same upon the slotted beam A^3 .

The position of the instrument in forming circles may be varied at pleasure, by moving the sliding piece Y upon the beam A or the slide I upon the beam A^2 .

When desired, the center point F and slotted beam A^3 with its pencil holder M may be detached from the instrument and used for forming circles.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is—

1. The slide I, pencil holder J and beam A^2 when the same shall be combined and operated in connection with the beam A as shown for the purpose specified.

2. In combination with the same, the pointer E and circular plate C, arranged and operated in the manner described for the purpose shown.

3. The pencil holder M operating as described in combination with the pencil holder J, slide I, beam A^2 and tube D, arranged and operated as shown for the purpose set forth.

4. The point F inserted in the tube D in combination with the slide I and pencil holder J, arranged and operated as described for the purpose set forth.

JOHN P. JAMISON.

In presence of—

C. C. EGBERT,

JOSEPH GUTMAN, Jr.