

(No Model.)

J. C. SWEET.
FOLDING SQUARE.

No. 484,261.

Patented Oct. 11, 1892.

Fig. 1.

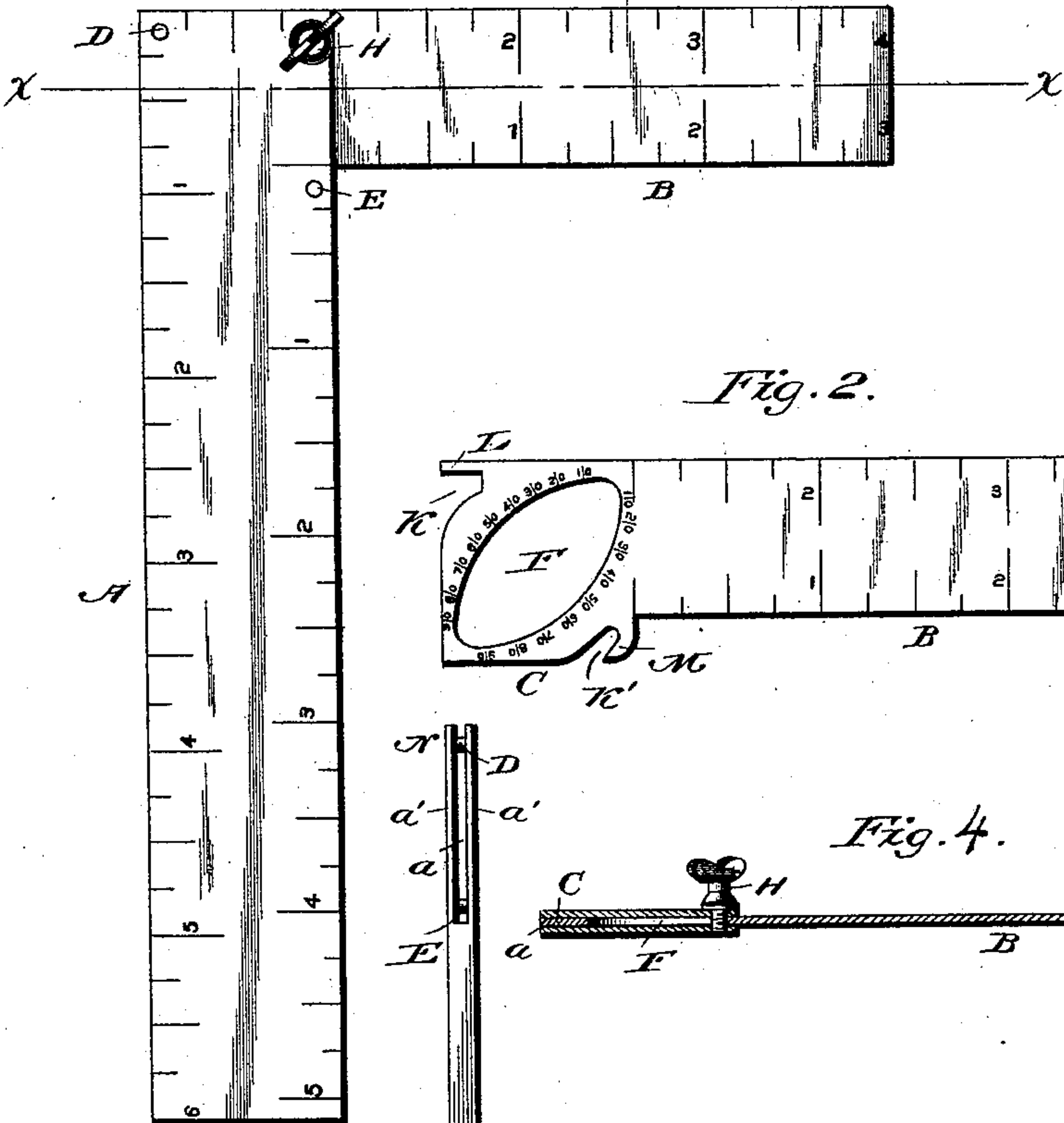


Fig. 2.

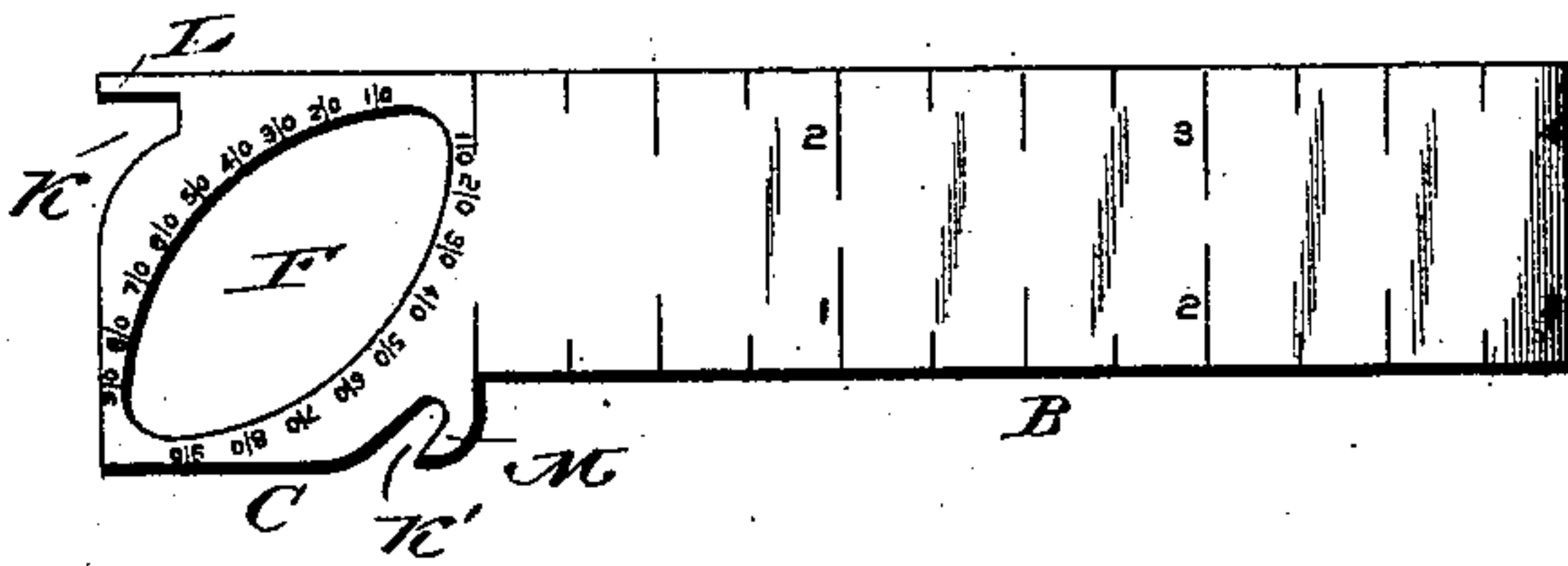


Fig. 4.

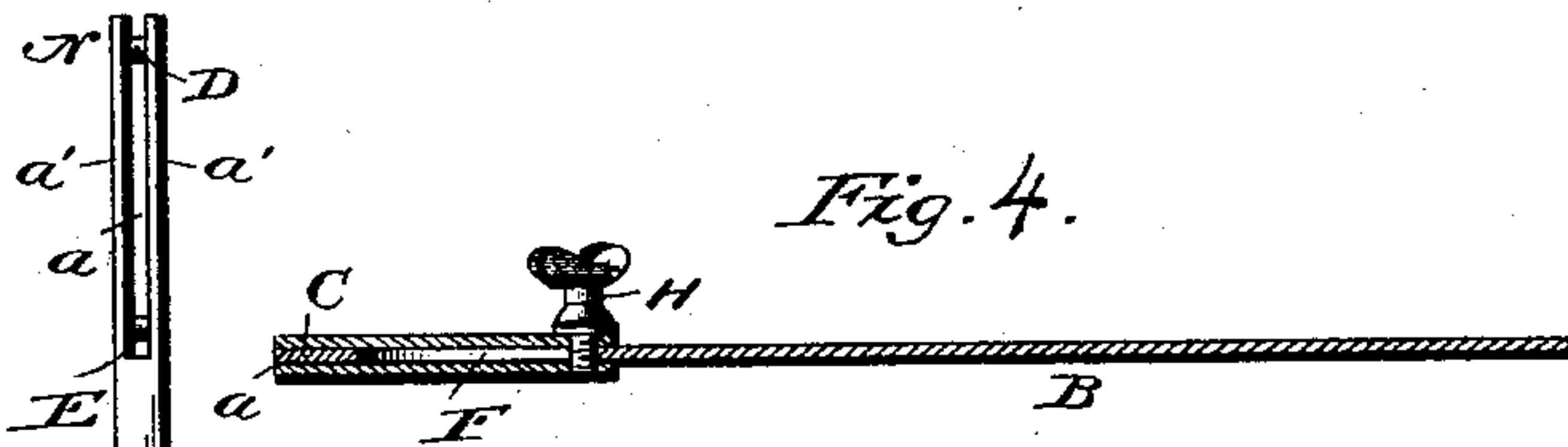
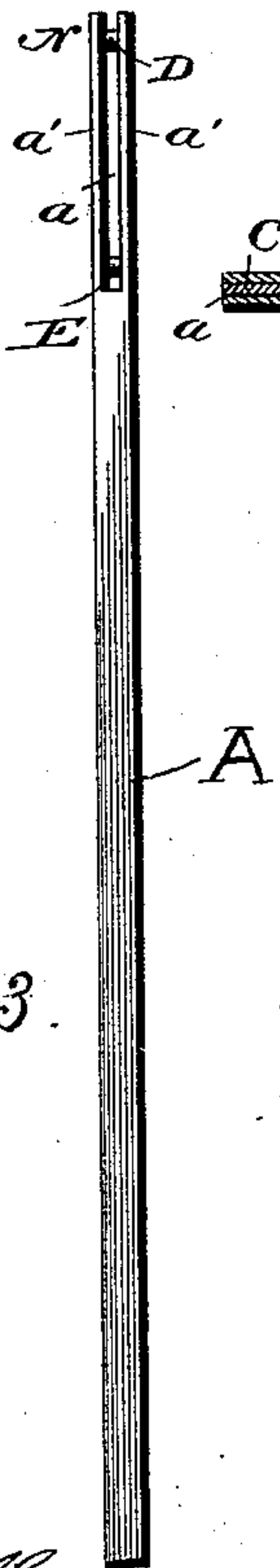


Fig. 3.



Witnesses:

J. C. Sweet
Arthur Bryant

Inventor:

James C. Sweet.
By *Edwin Ross,*
Att'y's.

UNITED STATES PATENT OFFICE.

JAMES C. SWEET, OF SOUTH ARM, MICHIGAN, ASSIGNOR OF ONE-HALF TO
J. H. LANWAY, OF SAME PLACE.

FOLDING SQUARE.

SPECIFICATION forming part of Letters Patent No. 484,261, dated October 11, 1892.

Application filed February 26, 1892. Serial No. 422,848. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. SWEET, a citizen of the United States, residing at South Arm, in the county of Charlevoix and State of Michigan, have invented certain new and useful Improvements in a Combined Square and Scale Measure; 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.

My invention relates to improvements in combined square and scale measures; and it consists of a square one limb or member of which is fitted in a bifurcated end of the other member and is provided with a graduated elliptical-shaped slot or aperture, the two members being held together in any desired relative positions by means of a set-screw, which passes through the major member or limb and through said slot in the other member.

My invention further consists of the peculiar construction and arrangement of parts, as will be hereinafter more fully pointed out, and specified in the claims.

In the accompanying drawings, Figure 1 is a plan view of a combined square and scale measure constructed in accordance with my invention. Fig. 2 is a detached plan view of one limb or member. Fig. 3 is an edge view of the other limb or member, and Fig. 4 is a sectional view on the line $x x$ of Fig. 1.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A B designate the two limbs or members, adapted to be adjusted and clamped at right angles to each other to form the square. One end of the member A is bifurcated for a short distance, as at a , and in the bifurcated portion a is fitted the slotted end C of the other member B of the square or measure.

The arms or prongs a' of the limb A, formed by the bifurcated end a , are connected by transverse pins D E, located at the angles or corners of the bifurcated part a , and in the head C of the limb or member B is formed an elliptical-shaped slot or aperture F, the major axis of which lies at an angle to the longitudinal axis of the limb or member B. The

edges of this elliptical slot or aperture F are divided or graduated, each graduation corresponding to a degree, and said graduations are numbered from one to ninety. The order of the arrangement of the degrees on one side of the elliptical slot may extend in the reverse direction to those on the other side. A set-screw H extends through suitable threaded apertures in the bifurcated arms or prongs a' at one end of the limb A, said screw passing through the elliptical slot or aperture F in the limb B, and being located at the upper inner angle or corner of the limb A, as shown. The head C of the limb or member B is provided with two notches or recesses K K', so as to form two projecting tongues or lugs L M, which extend substantially at right angles to each other, the lug L being in line with the length of the member at the outer upper corner thereof and the other lug M being at right angles to the member and on the inner edge thereof a short distance from the slotted end. When the limbs A B are in a position to form a square, as shown in Fig. 1, the pins D E fit in the recesses K K', respectively, and when the members are adjusted to align with each other the pin D fits in the notch K, so that when the screw is tightened the members are rigidly held together.

When it is desired to make or measure an angle greater than a right angle, the set-screw is loosened and the limb or member B moved or turned about the pin D as a pivot until the end N of the limb or member A aligns with the desired graduation on one side of the elliptical slot or aperture F, and the set-screw is tightened to hold the limbs A B in their new positions. To form an angle less than a right angle, the same operation is repeated, except that the limb or member B is turned about the pin E as a pivot. The limbs or members A B are graduated as an ordinary rule.

I am aware that changes in the form and proportion of parts and details of construction of the devices herein shown and described as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

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

1. As an article of manufacture, a scale
5 measure and square consisting of a member having a bifurcated end, another member provided with an elliptical slot or aperture and fitted in the bifurcated end of the other member, and a set-screw passing through the slot
10 for holding the two members rigidly together, substantially as described.

2. In a scale-measure, the combination of an arm having one end bifurcated, the pins connecting the sides of said bifurcated end,
15 another member provided with a slotted end which fits in the bifurcated end of the first member, said slotted end being provided with suitable notches or recesses to receive the pins in the first member, and a set-screw passing through the slot for holding the two mem-
20 bers in the desired relative positions, substantially as described

3. As an article of manufacture, a scale measure and square comprising the bifurcated
25 member having the fixed pins, a slotted member fitted in the bifurcated end of the other member and provided with seats to receive the fixed pins, and a set-screw passing through the slot for clamping the bifurcated end of
30 one member upon the other member to hold

the two parts rigidly in position, substantially as and for the purpose set forth.

4. As a new article of manufacture, a scale measure and square comprising the member having one of its ends bifurcated, another
35 member fitted in the bifurcated end of the first member and having a slot whose major axis is at an angle to the longitudinal axis of the member and has its edges graduated, and a set-screw operating in the bifurcated end
40 of the one member and passing through the slot in the other member, substantially as described.

5. As a new article of manufacture, a scale measure and square comprising the bifurcated
45 member provided with the fixed pins or stops at the angles or corners of the bifurcated part thereof, another member with a transversely-inclined slot and the seats on the opposite sides of the slot to receive the fixed
50 stops on the other member, and a set-screw passing through the slot between the fixed pins or stops of the bifurcated member, substantially as described.

In testimony whereof I affix my signature in
55 presence of two witnesses.

JAMES C. SWEET.

Witnesses:

R. REUB. GLENN,
JAMES INGALLS.