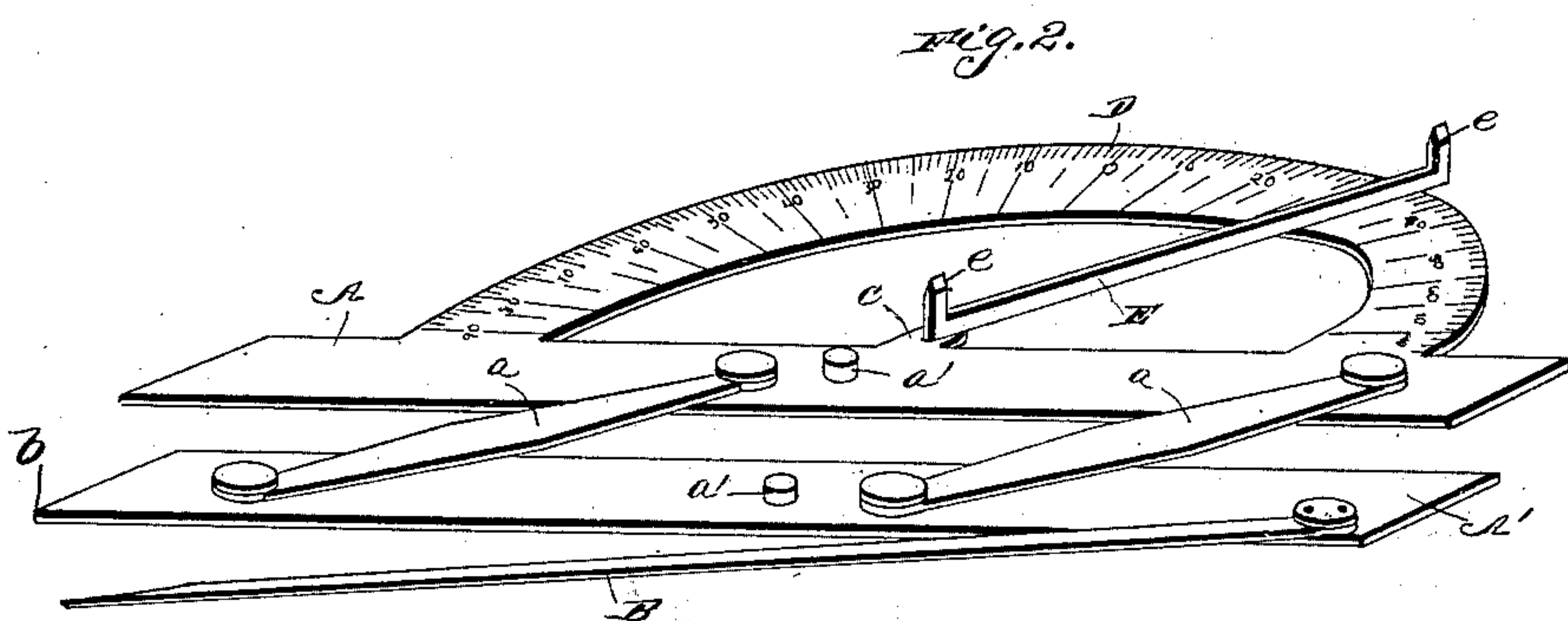
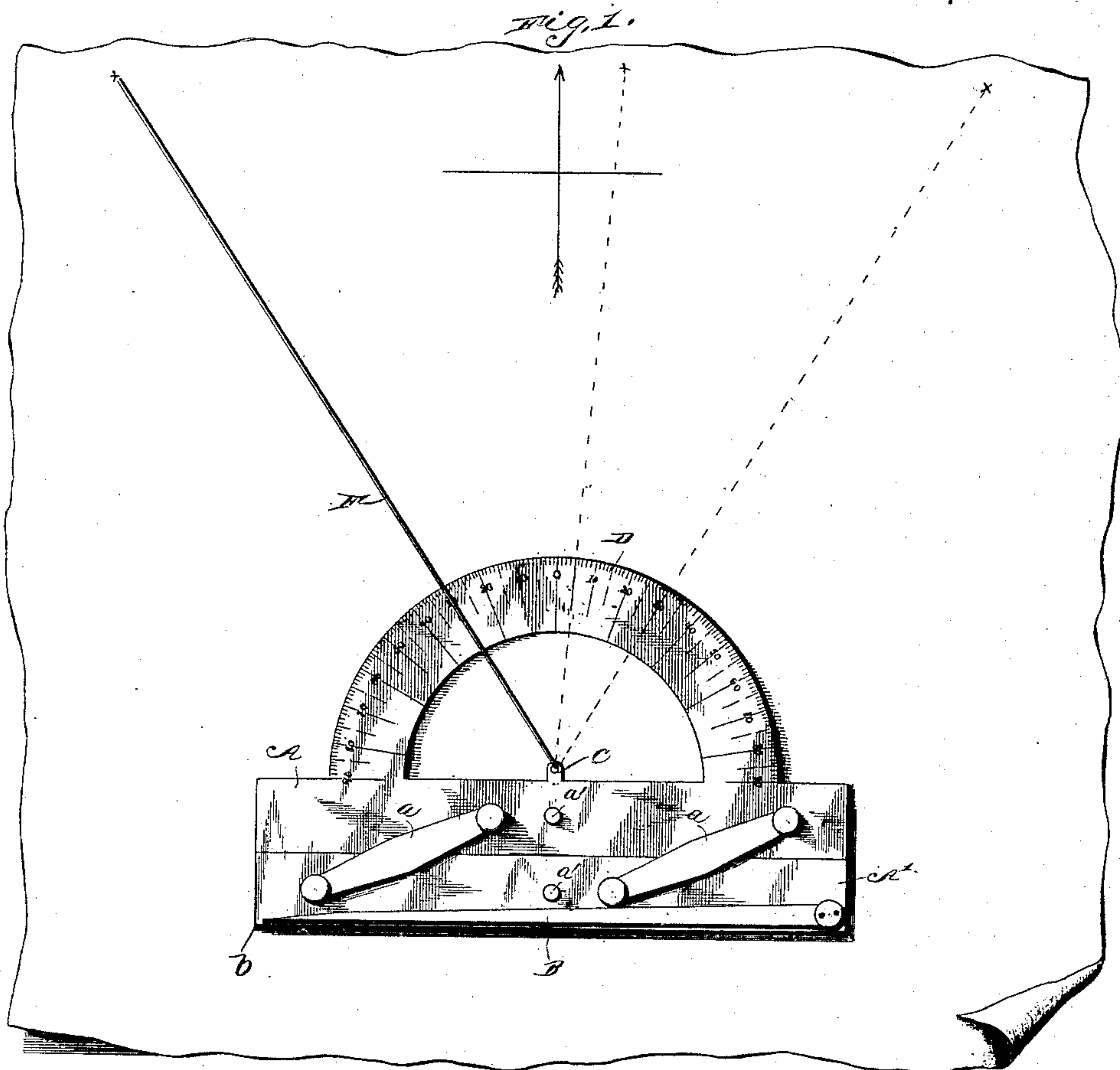


(No Model.)

C. WILSON.
NAUTICAL PARALLEL RULER.

No. 375,590.

Patented Dec. 27, 1887.



Witnesses

D. S. Taylor,
R. W. Bishop,

Inventor

Charles Wilson

By his Attorneys,

C. A. Howard

UNITED STATES PATENT OFFICE.

CHARLES WILSON, OF ROCKPORT, MAINE.

NAUTICAL PARALLEL RULER.

SPECIFICATION forming part of Letters Patent No. 375,590, dated December 27, 1887.

Application filed May 3, 1887. Serial No. 236,996. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WILSON, a citizen of the United States, residing at Rockport, in the county of Knox and State of Maine, have invented new and useful Improvements in Nautical Parallel Rulers, of which the following is a specification.

My invention relates to improvements in nautical instruments; and it consists in the peculiar construction and arrangement of the various parts for service, substantially as hereinafter fully described, and particularly pointed out in the claims.

The primary object of my invention is to provide an improved implement of the class named especially adapted for shaping and laying out courses on charts which shall be accurate and easy of operation, readily adjusted to lay out different courses, and simple, compact, and cheap in construction.

In the accompanying drawings, Figure 1 is a plan view of a combined implement embodying my invention in position on a chart to shape and lay off the course of the vessel thereon, and Fig. 2 is a perspective showing the parts thereof separated.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A A' designate the parallel rulers, which are connected by the swinging links *a* in the usual manner, and are provided with the lugs *a'* for convenience in using. One of the rulers A' has a divider-leg, B, pivotally secured to one end, as shown, and the other ruler, A, is provided at the center of its outer side edge with a flat rounded point, C. This point C is the center of a protractor, D, which projects from the edge of the ruler A and is formed integrally with the same.

In Fig. 2 I have shown an index-arm, E, as pivoted to the point C and extending out over the protractor D. This index-arm has its ends provided with upwardly-projecting spurs or points *e*, which form sight-points. This arm is used when it is desired to change the course of the vessel during the voyage by taking the bearings of objects on the shore, as hereinafter described; but in laying off the course of a vessel from one port to another on the chart this arm E is not used, but a cord, F, (shown in Fig. 1,) used instead.

In laying out the course of a vessel on the chart from one port to another the center C of the protractor is placed over the starting-port on the chart, which is the position of the vessel, and the ruler A' is then moved until its edge coincides with the nearest parallel or the center of the compass marked on the chart. This, it will be readily seen, will bring the device into proper position to indicate the variations of the course from the cardinal points of the compass. The cord F is now extended over the protractor to the port of destination, and the bearing of the course will be denoted by the number of points or degrees marked on the protractor at the point where the cord crosses it.

When the vessel is on an inland voyage or coasting along the seaboard, the bearings of objects on shore or which may be sighted in the water can be readily ascertained. These bearings are found by placing the device on the deck or compass-house just above the steering-compass with the parallel rulers at right angles to the line of the vessel. The arm E is now swung around until the object can be sighted thereover. The angle of the object to the course of the vessel will be thus ascertained and the true bearing of the object may be readily learned.

By securing the device in a convenient place on one of the transverse walls of the cabin in such a position that the ruler A will be parallel with the floor of the cabin and the protractor be depending from the same, the list of the vessel may be readily determined, as the arm E will swing in front of the protractor and will be always in a vertical position, as will be readily understood.

The divider-leg, in connection with the ruler A', will be found very useful and advantageous in measuring the distances between different points designated on the chart. The divider-leg is swung outward from the ruler and the end or point of the divider is placed on one point and the corner *b* of the ruler placed on the other point. The device is then placed on the scale of miles marked on the chart without changing the relative position of the parts, when the distance sought for will be easily read, as will be understood.

Owing to the extreme simplicity of my de-

vice, it can be manufactured at a trifling cost, and its advantages need not be elaborated here.

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

1. A nautical instrument comprising a pair of parallel rulers, a divider-leg pivoted to one of said rulers, and a protractor formed integrally with the other ruler and projecting from the side edge of the same, substantially as set forth.

2. A nautical instrument comprising a pair of parallel rulers, a divider-leg pivoted to one of the rulers, a protractor formed integrally with the other ruler and projecting from the side edge thereof, and an index secured to the rulers and extending out over the protractor, substantially as described.

3. A nautical instrument comprising a pair of parallel rulers, a protractor formed integrally therewith, the said rulers having a point, C, forming the center of the protractor, and an arm, E, having the upwardly-projecting points *e* at its ends and pivoted to the said point and extending out over the protractor, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES WILSON.

Witnesses:

N. T. TALBOT,
C. F. RICHARDS.