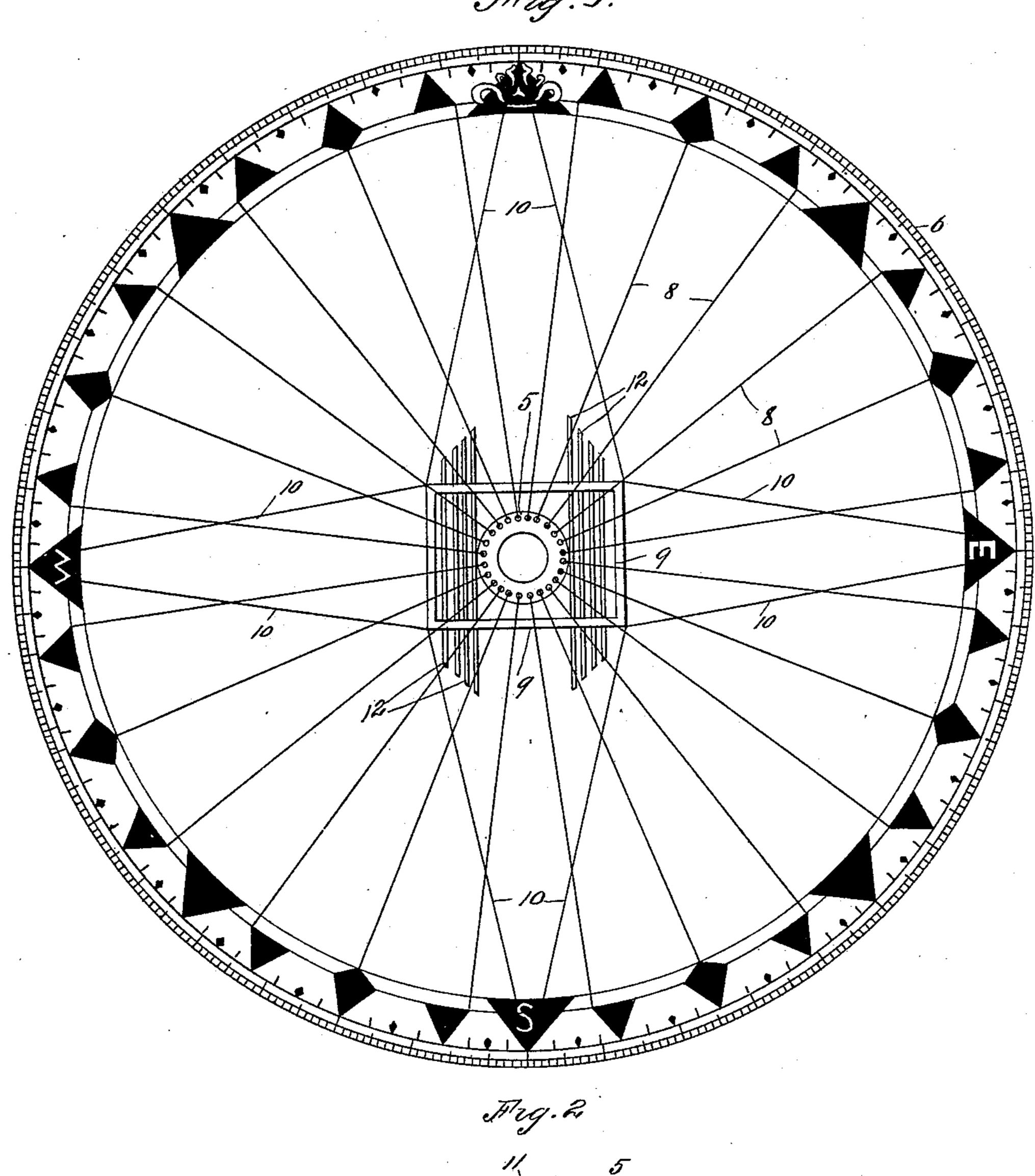
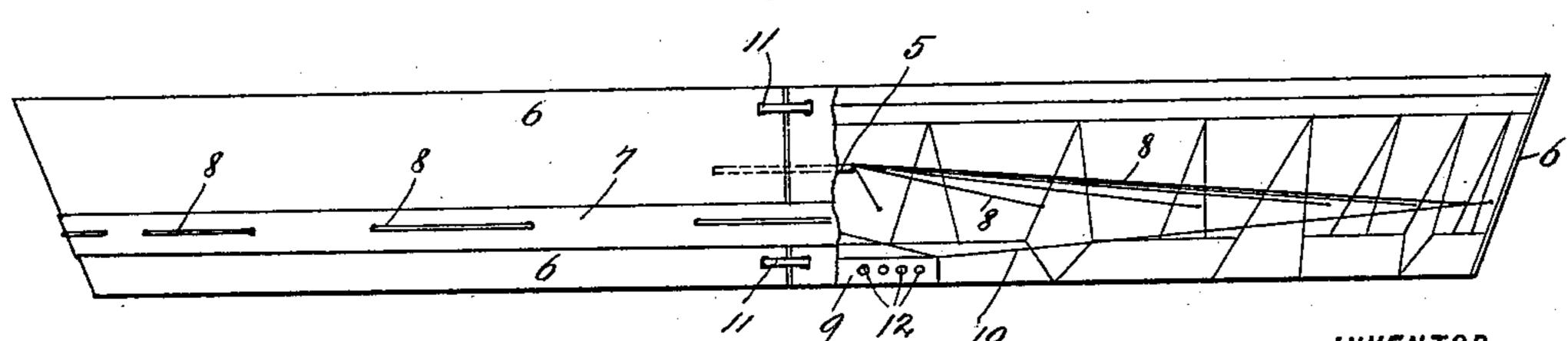
J. W. GILLIE. COMPASS CARD.

(Application filed July 29, 1896.)

(No Model.)

Mig. S.





WITNESSES

10. Voroforo M. Comowles INVENTOR Solle,

Odgar Sales Co

United States Patent Office.

JOHN WILSON GILLIE, OF NORTH SHIELDS, ENGLAND.

COMPASS-CARD.

SPECIFICATION forming part of Letters Patent No. 626,686, dated June 13, 1899.

Application filed July 29, 1896. Serial No. 600,912. (No model.)

To all whom it may concern:

Be it known that I, John Wilson Gillie, a citizen of the United Kingdom of Great Britain and Ireland, and a resident of the New Quay, North Shields, in the county of North-umberland, England, have invented certain new and useful Improvements in Compass-Cards, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar numerals of reference indicate corresponding parts wherever found throughout both views.

The invention is the same as that for which 15 I have obtained a patent in Great Britain, No. 23,084, dated December 3, 1895; a German ntility patent, No. 55,349, dated April 7, 1896; and a French design patent, No. 8,812, dated July 25, 1896; and said invention relates to 20 compass-cards, and the object thereof is to provide an improved device of this class and means for supporting the same, said card consisting of a plain ring which is preferably composed of paper, linen, silk, or similar ma-25 terial which may be stiffened with starch or any suitable substance and which is connected with or suspended from a frame in such manner that it will not warp or bend when exposed to the sun or different degrees 30 of moisture or temperature or when handled.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of my improved compass-card and showing also the method of supporting the same, and Fig. 2 a sectional side view thereof

tional side view thereof. In the practice of my invention I provide a central boss 5, which is preferably composed 40 of aluminium and circular in shape, and I also provide a circular card 6, which is composed of paper or similar material and around which passes a band 7, which is also preferably composed of aluminium, and said band 45 7 is connected with or suspended from the boss 5 by radial cords or threads 8, which are preferably composed of silk and which are connected with the band 7 in any desired manner, and the central boss 5 has a central 50 hole in which is fitted the jeweled center which supports the card on the pivot of the compass-bowl. I also provide a frame 9, which is preferably rectangular in form and

preferably composed of aluminium, and said frame is preferably suspended from the band 55 7 by threads 10, which connect with the outer corners thereof and with the band 7 at the four cardinal points—north, east, south, and west—and the ends of said band may be connected in any desired manner, and the ends 60 of the card 6 are connected by aluminium rivets or fastening devices 11.

The frame 9 supports eight magnetic needles 12, which are passed therethrough, four on each side of the center, and said needles 65 being parallel to each other and to the north-and-south line of the card, and in Fig. 2 one-quarter of the card or rim is removed, together with a similar portion of the band 7, so as to show the threads by which the band 7 is supported or suspended from the boss 5 and the frames 9 from said band 7.

The annular card 6 may be attached to the rim or band 7 in any desired manner; but I avoid gumming or pasting the same thereto, 75 and the operation will be readily understood from the foregoing description by all those familiar with this class of devices.

The annular card 6 is so formed that when placed in position it is held as shown in Fig. 802, the upper side thereof lying nearly at right angles to the line of sight of the observer, so as to more clearly show the various points and markings thereon, and,

Having fully described my invention, I 85 claim as new and desire to secure by Letters Patent—

In a compass, the combination with a central circular boss, of a band as 7, which is connected with and suspended from said boss, 90 by radial cords or threads, and a circular compass-card which is mounted on said band, and held in proper form and position thereby, said band and said card being outwardly flared, and a frame which is suspended from 95 said band by threads or wires, and provided with a plurality of magnetic needles, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 7th day of July, 1896.

JOHN WILSON GILLIE.

Witnesses:

SAMUEL BREADFORD ORD, FREDERICK ABRAHAM JOLLY.