

(No Model.)

E. G. KING.  
COMPASS ATTACHMENT FOR FIELD GLASSES.  
No. 444,795. Patented Jan. 13, 1891.

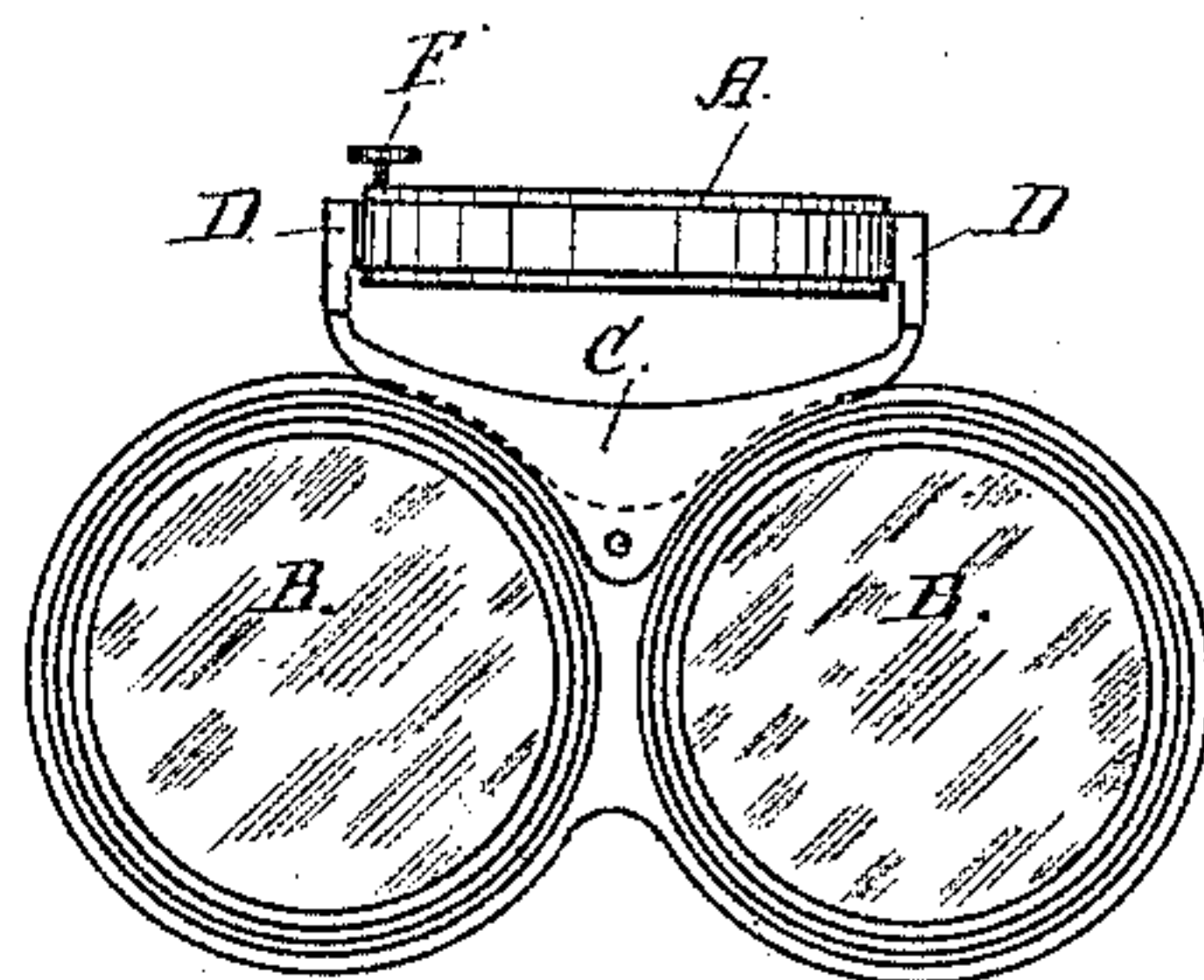
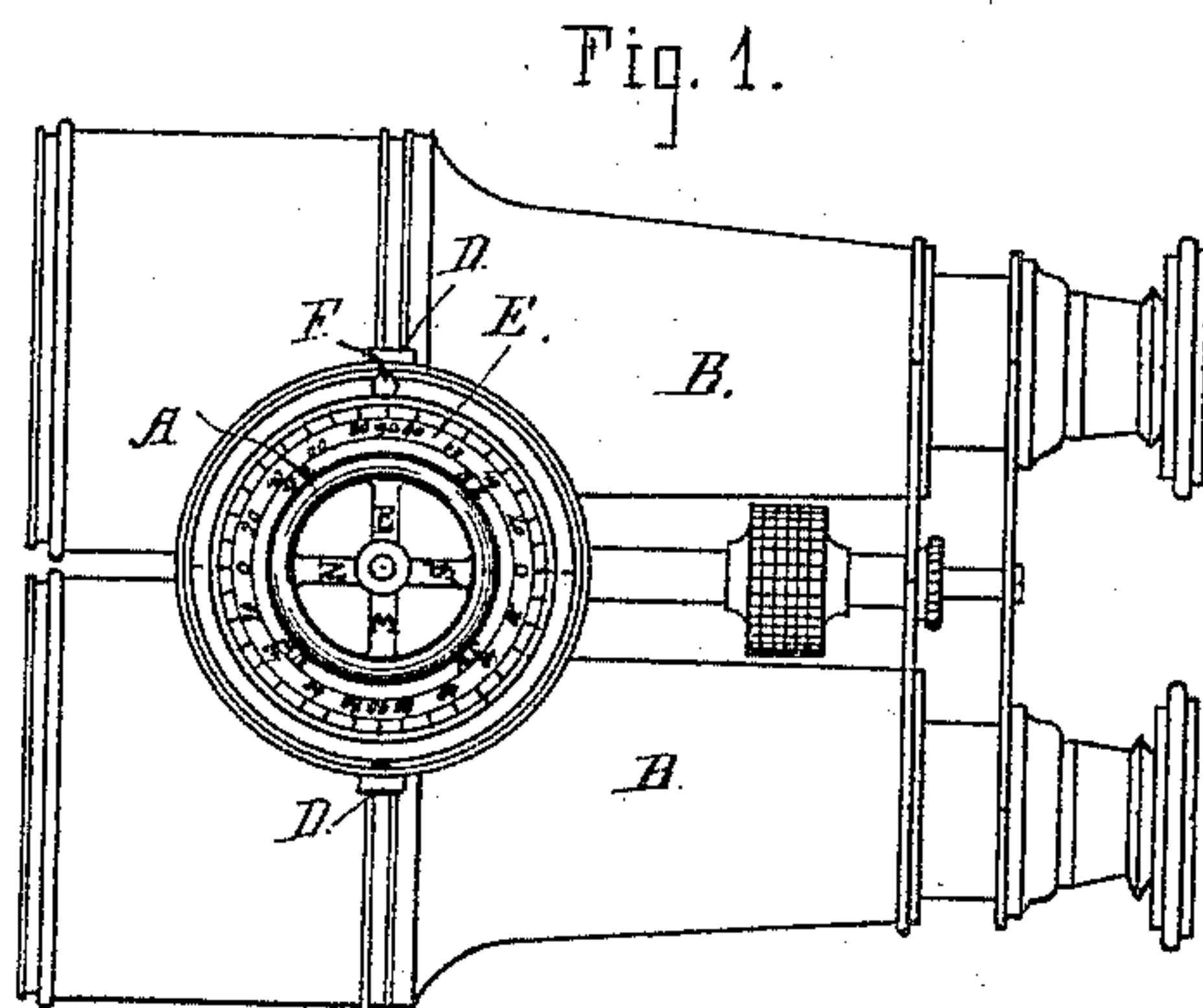


Fig. 2.

Witnesses:

Wm. Mayer

A. M. Charlott

Inventor:

Edward G. King  
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Atty's.

# UNITED STATES PATENT OFFICE.

EDWARD G. KING, OF SAN FRANCISCO, CALIFORNIA.

## COMPASS ATTACHMENT FOR FIELD-GLASSES.

SPECIFICATION forming part of Letters Patent No. 444,795, dated January 13, 1891.

Application filed April 4, 1890. Serial No. 346,612. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD GEORGE KING, a subject of the Queen of Great Britain, residing at San Francisco and State of California, have invented a new and useful Compass Attachment for Marine and Field Glasses, of which the following is a specification.

The nature of this invention is to provide a means for taking observations at sea or on land either in the night-time or day-time by the use of a single instrument; and my invention consists in the arrangement and combination of parts hereinafter set forth, and pointed out in the claims.

In the drawings which form part of this specification, Figure 1 is a plan or top view of my compass attachment to marine and field glasses. Fig. 2 is a view taken from the front or left-hand side of Fig. 1.

In carrying out my invention I preferably employ a Ritchie or fluid compass A, the box or case of which is permanently fixed to the glass B between the tubes or barrels thereof by means of a saddle C a little distance back or to the rear of the object glasses or lenses, the lower end of the saddle-frame being permanently connected centrally between the tubes, as shown in Fig. 2, yet so as to be clear of the tubes.

The box or compass-containing case is connected to the arms or gimbals D D of the saddle-frame, and the dial-plate E of the compass swings freely in the case in the usual manner, and has free movement in the case or box during the time of taking the observation. When this is accomplished, however, a set or stop screw attachment F is made to operate against or upon the dial-plate and hold it immovable in the required position until the calculation has been made. It is then released again for taking other and further observation. This set-screw or stop is arranged at one side of the box or compass-containing case and holds the dial-plate or compass firmly

in position immediately as the stop or screw is acted upon after the observation has been taken. As thus constructed, arranged, and combined, it will be seen that the compass attachment with the glass is always in position and can be taken aloft as well as on deck in the night-time as well as the day-time, for furnishing magnetic bearings, without the aid of separate instruments or a "dumb compass" at the mast-head or taffrail for taking relative bearings.

It will be seen that my glass and compass attachment will be useful and valuable for taking observation on land or in the heavens, as well as on the sea, either in the night-time or in the day-time. Furthermore, my invention will be of great utility in boat or marine surveying. In order to take a bearing from the standing compass, the glass must be removed from the eye before the bearing can be taken, in which case the object may be from one and a half to two points off.

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

1. The combination, with a field or marine glass, of a compass-containing case suitably mounted on said glass and provided with a stop device for engaging and holding the needle at any point.

2. In a field or marine glass, the saddle-frame permanently connected to the glass between the barrels or tubes thereof, to the arms or gimbals of which is connected a compass-containing case provided with a set-screw or stop engaging with the dial-plate or compass, substantially as and for the purpose herein set forth and specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

EDWARD G. KING. [L. S.]

Witnesses:

C. W. M. SMITH,  
CHAS. E. KELLY.