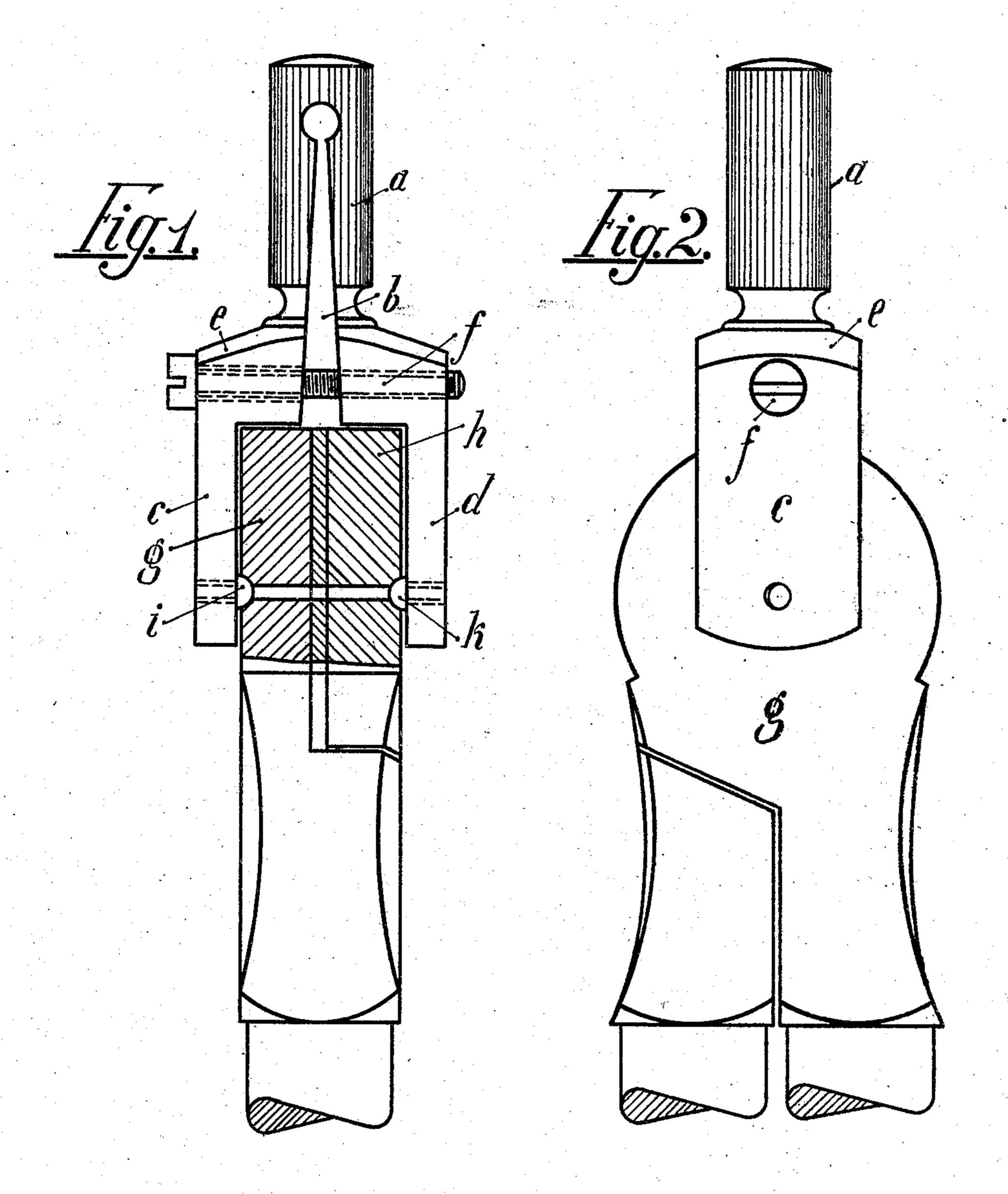
G. SCHOENNER.
HEAD FOR COMPASSES.
APPLICATION FILED FEB. 15, 1905.



Witnesses J. M. Kuchue John a. Pereiral Treentor Georg Schoenner White Andrew

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## UNITED STATES PATENT OFFICE.

GEORG SCHOENNER, OF NUREMBERG, GERMANY.

## HEAD FOR COMPASSES.

No. 806,581.

Specification of Letters Patent.

Patented Dec. 5, 1905.

Application filed February 15, 1905. Serial No. 245,747.

To all whom it may concern:

Be it known that I, Georg Schoenner, manufacturer, a subject of the German Emperor, residing at Nuremberg, Bavaria, Germany, have invented new and useful Improvements in Heads for Compasses, of which

the following is a specification.

In the ordinary heads of compasses or bowpens the jaws of the head are held in position 10 by two displaceable screws with projecting studs inserted in the arms of the rigid bow, which screws engage in corresponding recesses in the jaws. The screws, however, easily turn back or yield when the bow-pens 15 or compasses are in use, thus necessitating their frequent adjustment or screwing up. Now by the present invention this is avoided by the head being made with a spring action and the arms provided with fixed studs, which 20 are pressed against the jaws of the compasshead by means of a tightening-screw located over the compass-head and are thus held at an immovable distance apart.

The invention is illustrated in the accom-

25 panying drawings, in which—

Figure 1 is a side view, partly in section;

and Fig. 2 is a front view.

The handle a of the head is provided with a longitudinal slot b, which is continued 30 through the two arms c and d and the bar econnecting them, and thereby allows of a moderate springing apart of the arms of the bow without themselves being arched thereby. The bar e is perforated and provided 35 with a thread for receiving a tighteningscrew f, by means of which the two bow-arms may be approached to one another. Two pins i and k, firmly screwed or pressed into the arms c and d, serve for fixing the com-40 pass-head jaws g and h, the stude of which pins in the form of construction shown are made semicircular, but may be of conical form.

The bow is mounted on the compass-head in such a way that after slackening the screw 45 f the arms c and d spring apart and are pushed over the compass-head until the studs or pins i k snap into the corresponding recesses of the head-jaws. The necessary surface-pressure between the studs and the compass-50 head is then produced by the set-screw f, and the arms of the bow are held at a suitable distance apart.

The present invention has the advantage that no loosening of the compass-head in its 55 bearings can take place, as the fixed studs cannot be released by the turning of the head-jaws during the use of the compass, so that the distance of the bow-arms apart when

once adjusted remains constant.

I declare that what I claim is—

1. A compass having a head having a longitudinal slot therein, bow-arms c, d, connected to said head on opposite sides of the slot, fixed studs carried by the arms c, d, compass-head jaws pivotally held between said arms by the studs and a set-screw f located above the jaws and controlling the relative position of the arms c, d, substantially as described.

2. A compass having a head, a bar e connected thereto, said head and bar having slots therein, the slots in the head forming a continuation of the slot in the bar, arms c, d, attached to the bar e on opposite sides of the 75 slot therein, compass - head jaws pivotally held between the arms and a screw f for controlling the relative position of the arms.

In testimony whereof I have signed my name to this specification in the presence of 80

two subscribing witnesses.

GEORG SCHOENNER.

Witnesses:

LEONHARD KOERBER, OSCAR BOCK.