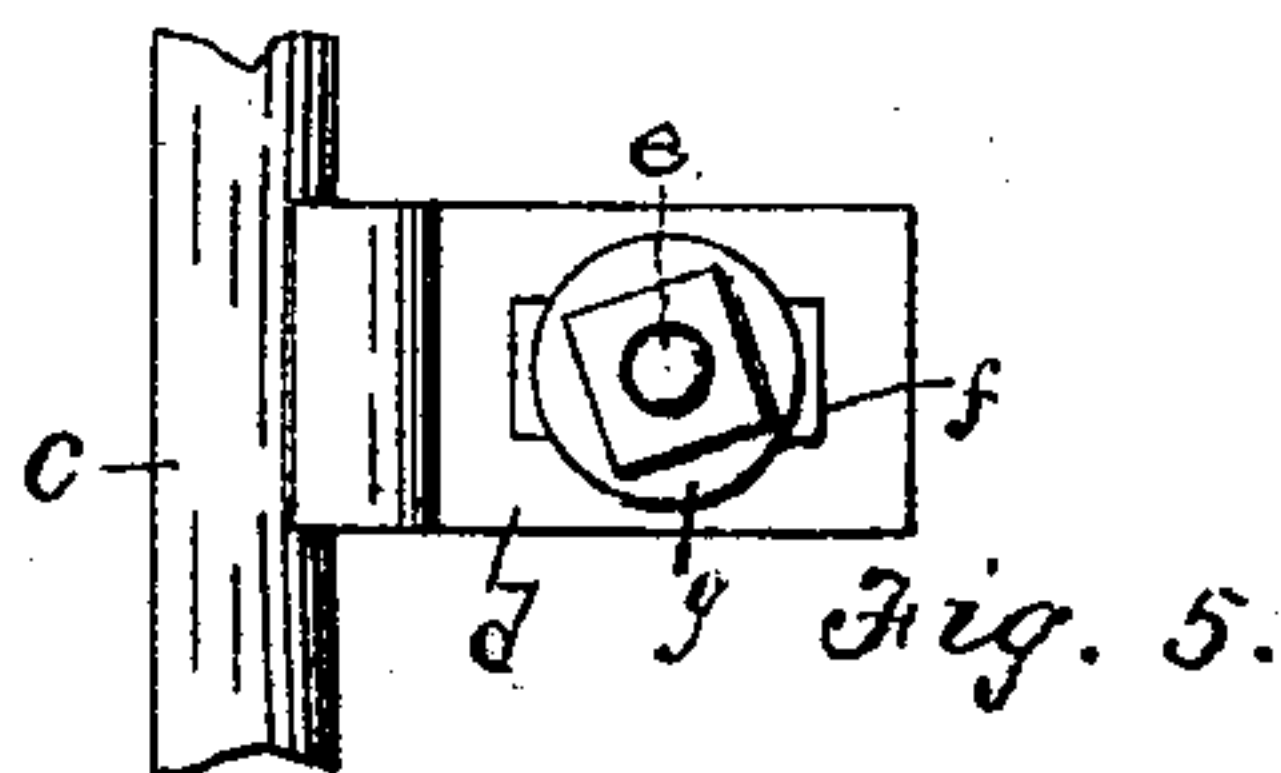
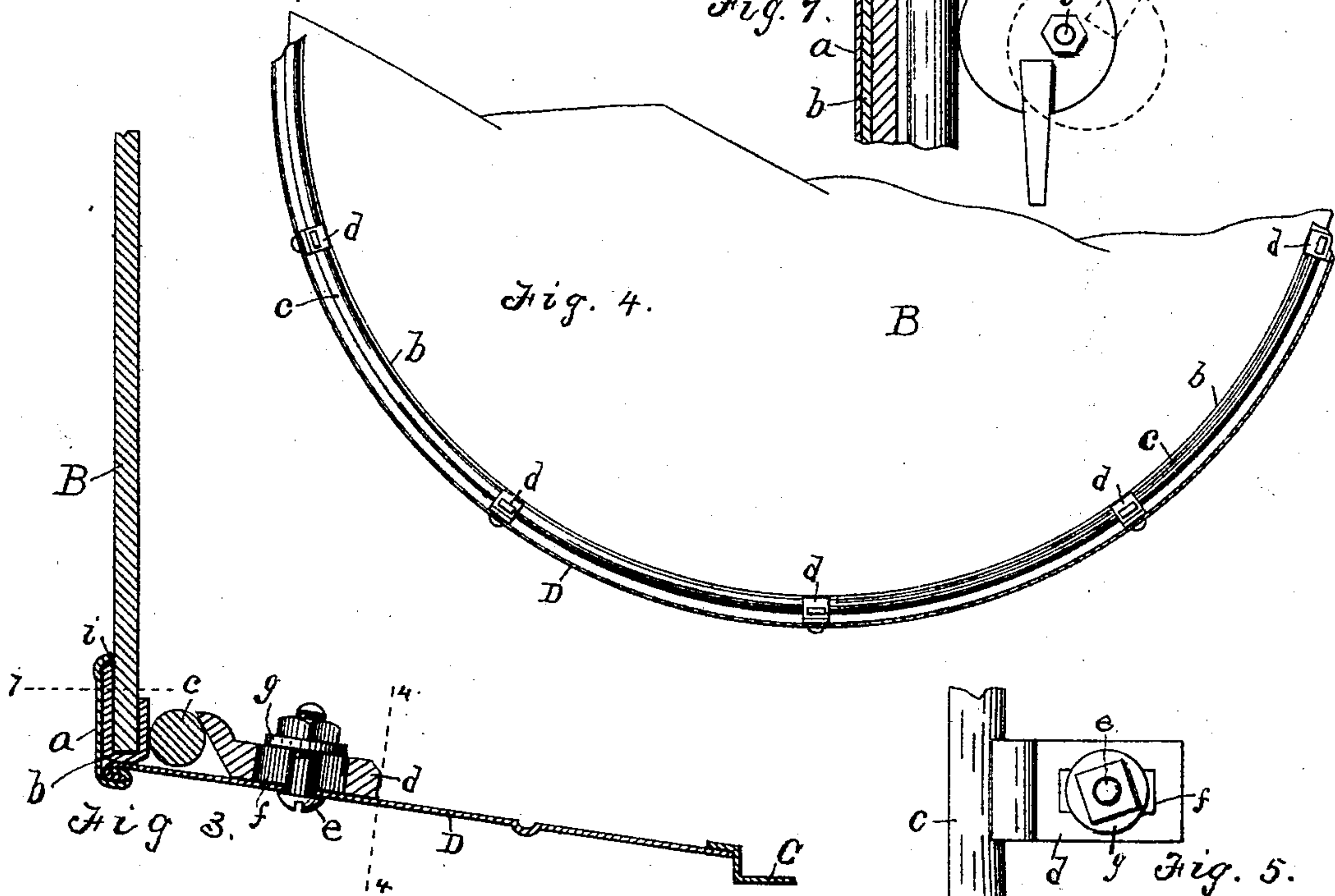
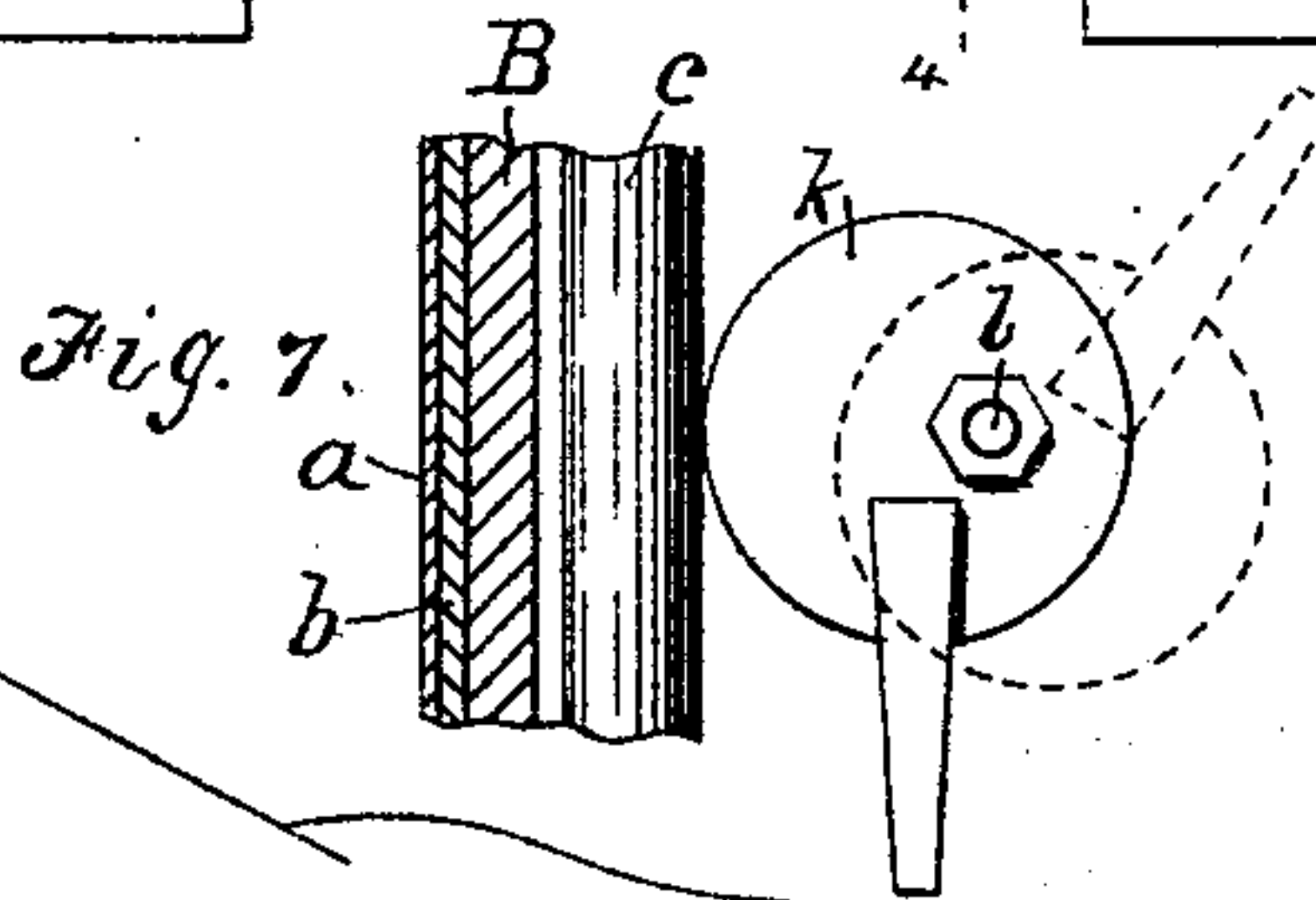
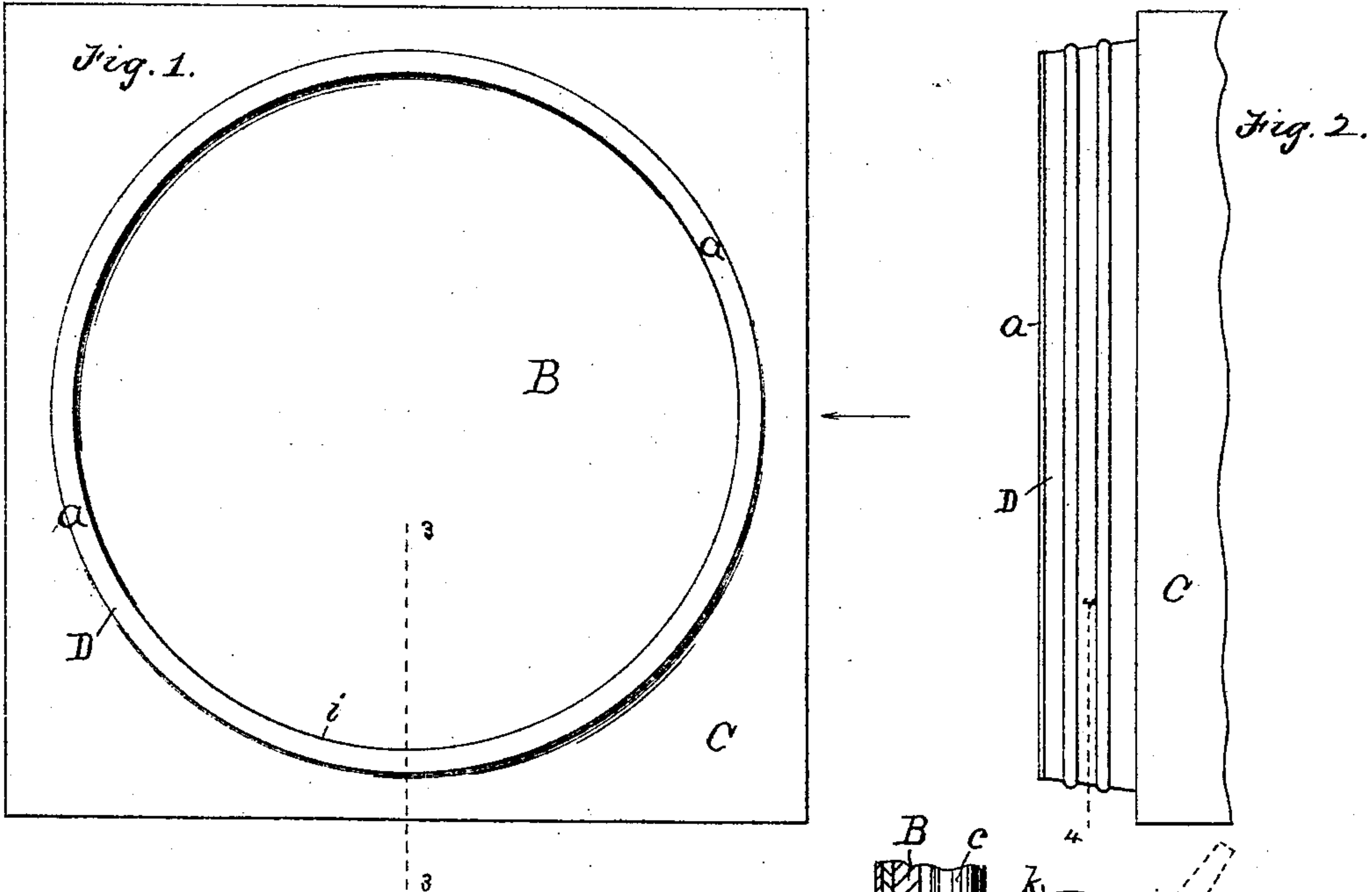


L. F. WILDER.
HEADLIGHT.

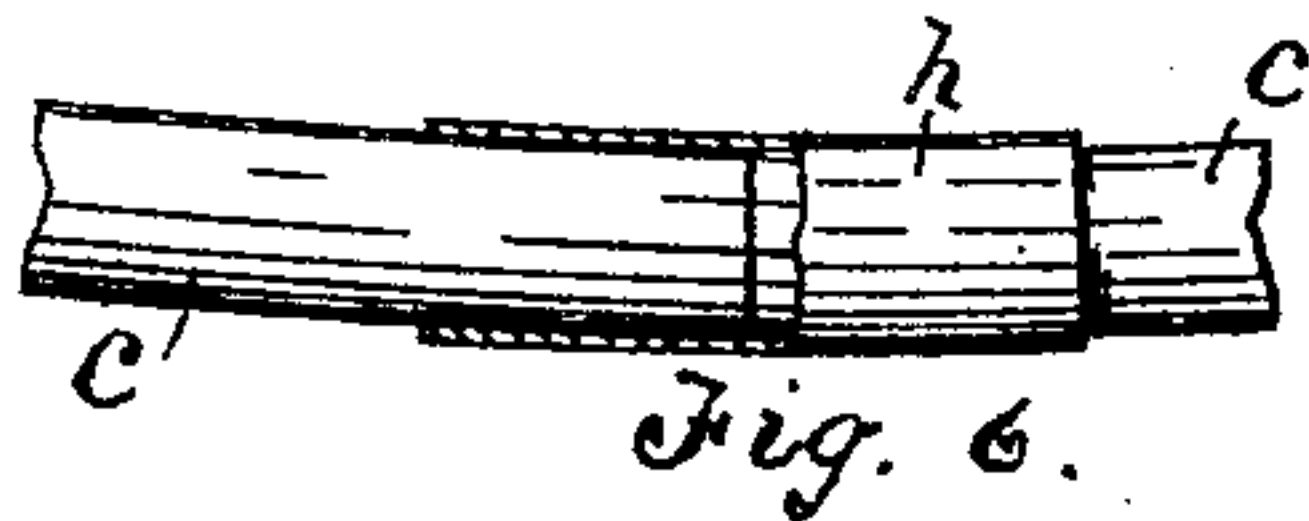
No. 500,176.

Patented June 27, 1893.



Attest:

J. Simpson
E. J. Richmond.



Inventor:

L. F. Wilder.

By E. B. Whitmore, atty.

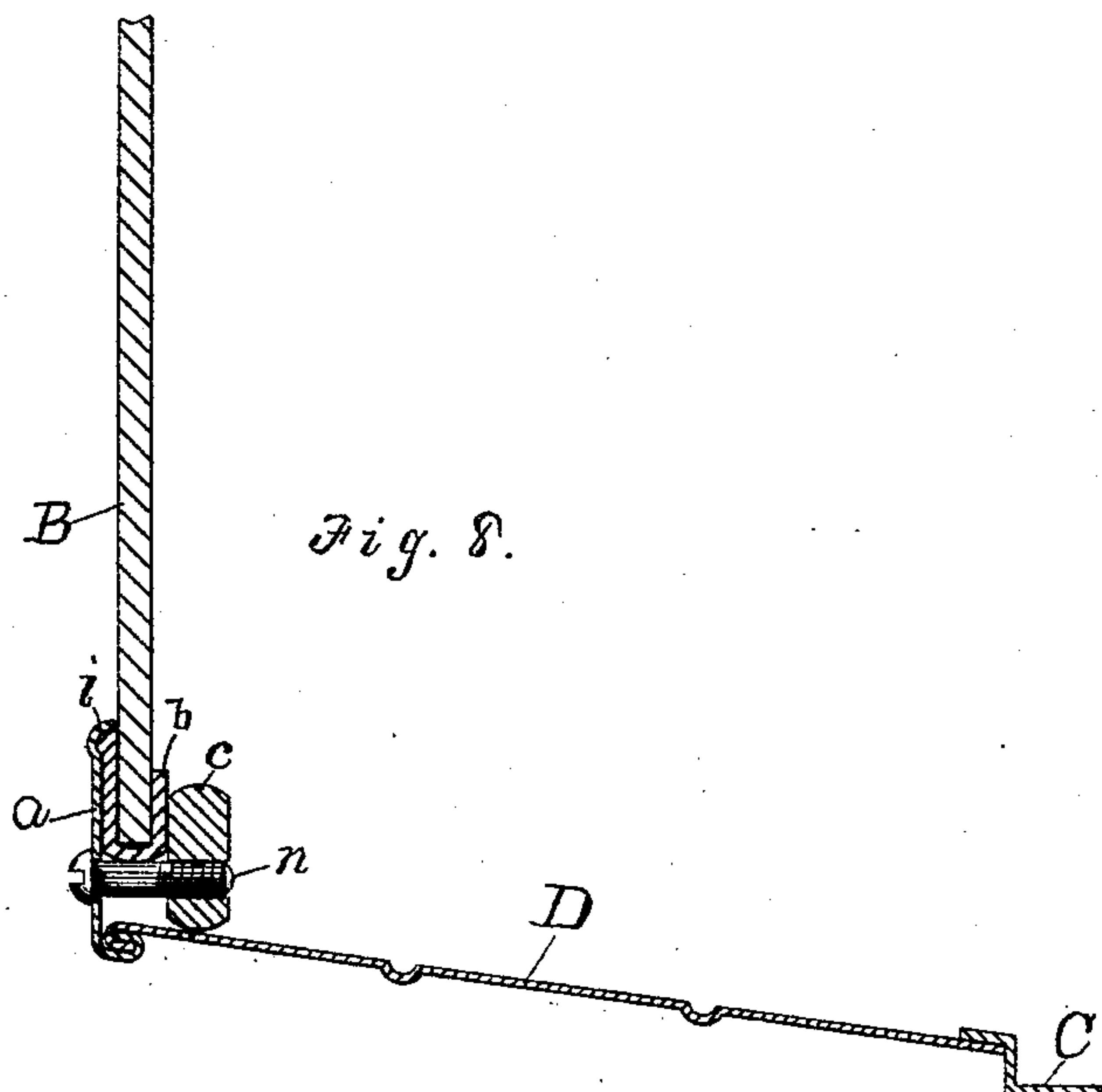
(No Model.)

2 Sheets—Sheet 2.

L. F. WILDER.
HEADLIGHT.

No. 500,176.

Patented June 27, 1893.



Attest:

J. Simpson.
Henry Hart.

Inventor:

L. F. Wilder.
By E. B. Whitmore,
Atty.

UNITED STATES PATENT OFFICE.

LYMAN F. WILDER, OF ROCHESTER, NEW YORK.

HEADLIGHT.

SPECIFICATION forming part of Letters Patent No. 500,176, dated June 27, 1893.

Application filed November 25, 1892. Serial No. 453,055. (No model.)

To all whom it may concern:

Be it known that I, LYMAN F. WILDER, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Headlights, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention relates to head-lights and lanterns, but more particularly to locomotive head-lights and the improvement consists principally in the formation of the front part of the goggle, and the manner and means of insulating the glass and holding it in place.

The invention is hereinafter fully described and more particularly pointed out.

Referring to the drawings, Figure 1 is a front view of the goggle. Fig. 2 is a view of the same seen as indicated by arrow in Fig. 1. Fig. 3 is a radial section on the dotted line 3 3 in Fig. 1. Fig. 4 is a section on the dotted lines 4 4 in Figs. 2 and 3. Fig. 5 is a plan of a holding clip for the glass. Fig. 6 shows the manner of joining the ends of the ring. Fig. 7 shows a different holder for the ring, parts being sectioned as on the dotted line 7 in Fig. 3. Fig. 8 also shows another means of holding the ring and glass.

Referring to the parts shown C is the body of the head-light, D the goggle, and B the glass front thereof. The goggle is usually made conical in form with the smallest diameter forward, and made, ordinarily, of cold rolled steel of about No. 24 gage. An inwardly projecting annular rim *a*, is seamed all around to the front edge of the goggle, the plane of which rim being at right angles with the axis of the goggle. At its inner edge the rim is slightly beaded and turned inward, as shown in Fig. 3. The periphery of the glass is covered with a cushion *b*, the same being a strip of soft yielding material as india rubber or felt. This cushion is lapped upon both sides of the glass disk, as shown, and covers its entire edge. The part of the cushion on the outside of the glass disk lies directly against the inner face of the rim *a* and fills the space between the rim and the disk inside of the in-turned edge *i* of the rim. Upon the inner face of the disk the cushion reaches to a less distance, and has lying against it a metal ring *e*, preferably of iron, as shown in Figs.

3 and 4. This ring is pressed against the cushion by means of a series of adjustable clips *d*, secured to the inner face of the goggle by clamping bolts *e*, passed through the wall of the goggle. The clips shown, are formed with longitudinal slots *f*, through which the securing bolts pass, the latter being provided with washers *g*, to cover the slots. The ends of the ring may be welded together to make it in one solid piece, or they may be abutted together, as shown in Fig. 6, and secured by being covered with a tightly fitting sleeve *h*, of sheet metal secured to place by any desirable means, as by soldering. I prefer to form the faces of the clips which bear against the ring, inclined or slanting, as shown in Fig. 3, by means of which the ring may be readily centered in the goggle or made concentric therewith, and which will also cause the ring to be forced outward against the rim *a* when the clip is drawn down by the bolt *e* to fasten it to the goggle. The glass disk is separated from the rim *a* in front, and the ring *c* behind, by the cushion which is interposed between it and said rim and ring, and it is also separated from the conical wall of the goggle by the cushion, which encircles its periphery. The part of the cushion in front of the glass is pinched between the latter and the rim on account of the pressure of the clips, and made slightly thinner than normal thereby. But it is prevented from spreading on account of its edge encountering the in-turned edge *i* of the rim. The edge of the cushion being thus forced against the edge *i* of the rim is caused to full up and become thicker and fill the interior of the adjacent bend in the rim. By these means the joint between the glass and the goggle is made tight, and the wind and the rain are kept out of the interior of the head-light.

I sometimes employ eccentrics or cams, like that shown at *k* in Fig. 7, to press the ring against the cushion, instead of the clips *d*. The holding bolts *l*, pass through the wall of the goggle and are provided with screw-nuts above the eccentrics, which, when turned down against the eccentrics, hold them from jarring out of place. The eccentrics are first turned to press the ring against the cushion and then secured by the screw-nuts as stated. Also in case of the lighter head-lights I dis-

pense with the holding clips and cams inside of the goggle and employ, instead, screws *n*, Fig. 8, inserted horizontally through the rim to hold the ring *c*. These screws pass through
5 just outside of the periphery of the cushion and are threaded directly into the ring, as shown. In this construction the ring is usually made flat in cross section so as to present a broader face for the reception of the
10 screws.

What I claim as my invention is—

A head-light having the goggle provided with a face rim and a glass disk, the rim being seamed to the front edge of the goggle
15 and at right angles to its axis, said rim having its inner edge beaded and turned inwardly

to nearly touch the glass, in combination with a cushion for the glass and a holding ring for the glass and cushion the glass being separated by the cushion from the rim and the ring
20 and holders for the ring the face of each of which holders is inclined or slanting, whereby the tightening of the holders against the goggle forces the ring outward against the glass, substantially as shown. 25

In witness whereof I have hereunto set my hand, this 16th day of November, 1892, in the presence of two subscribing witnesses.

LYMAN F. WILDER.

Witnesses:

ENOS B. WHITMORE,
ZELL SIMPSON.