

(No Model.)

2 Sheets—Sheet 1.

W. W. RICHARDS.

SIGNAL FOR LOCOMOTIVE HEAD LIGHTS.

No. 326,523.

Patented Sept. 15, 1885.

Fig. 1.

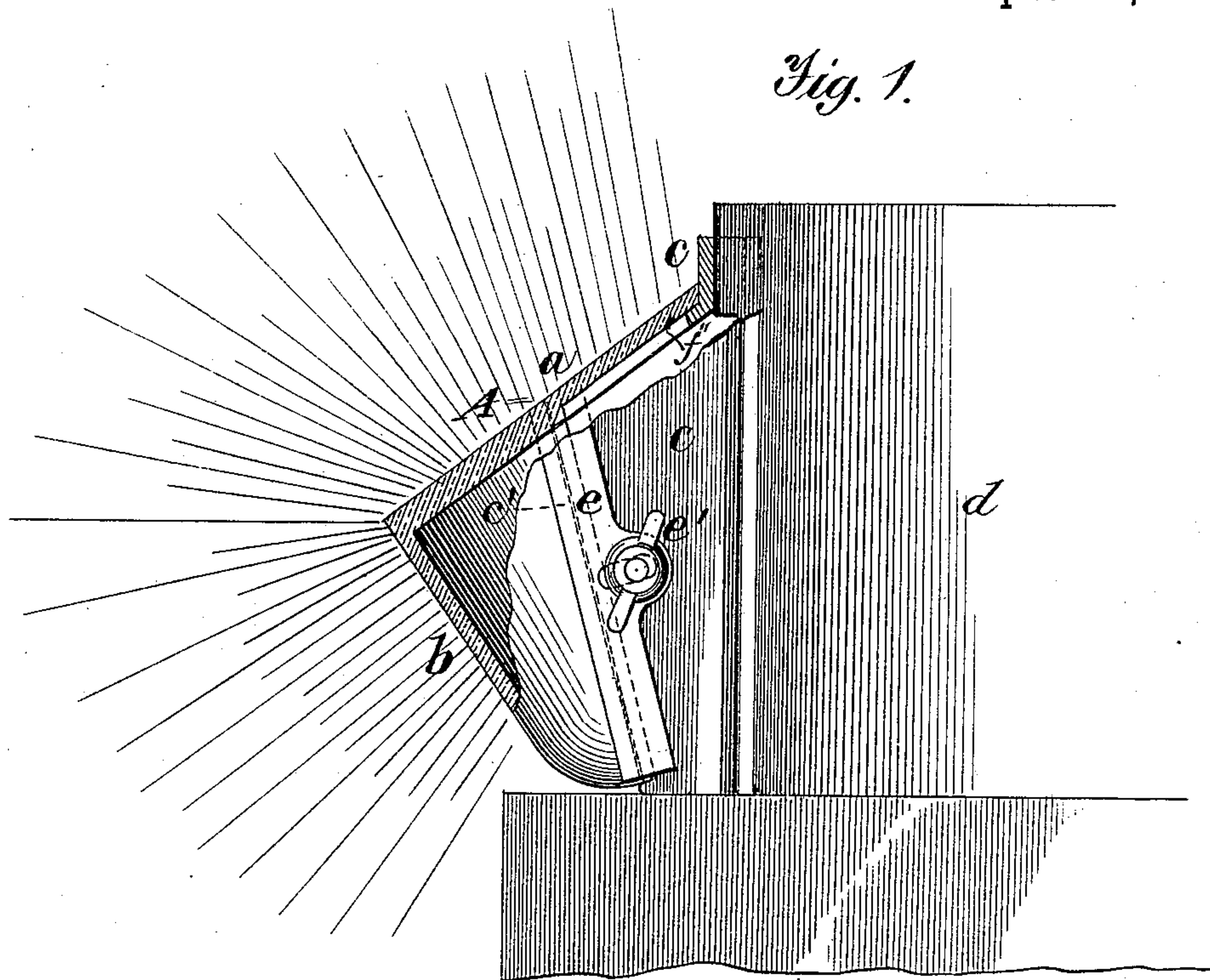


Fig. 2.

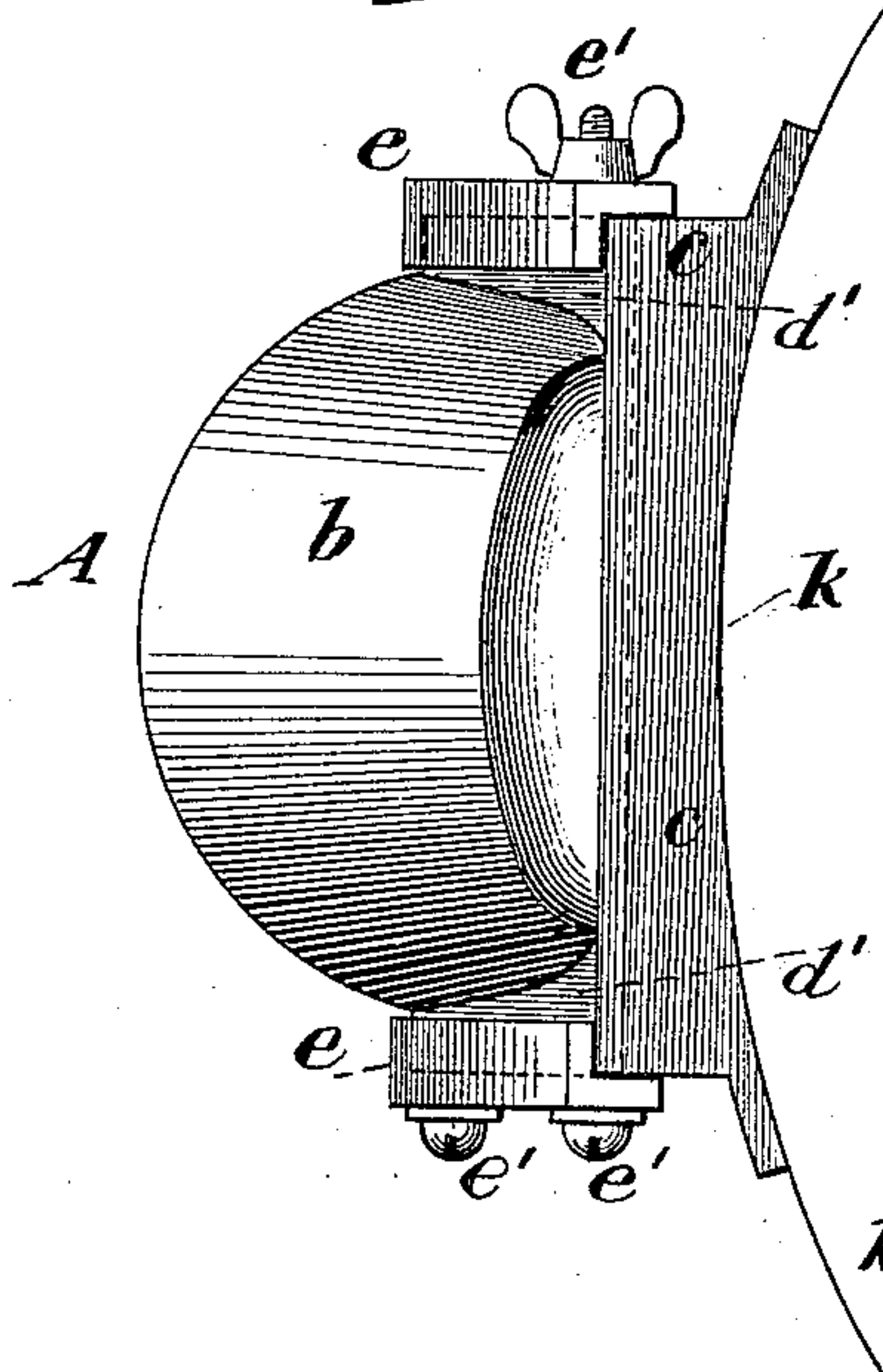
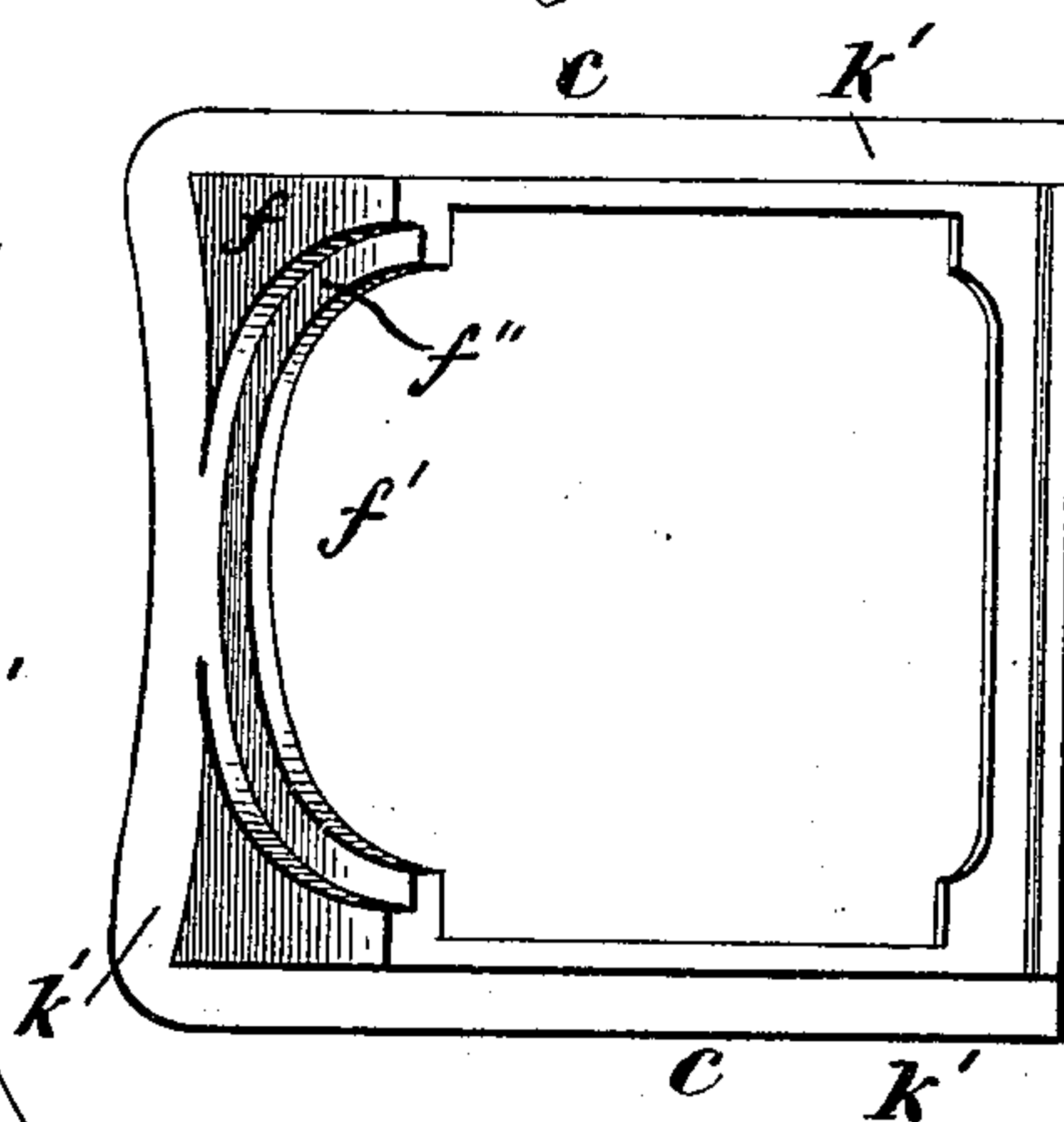


Fig. 5.



Witnesses:
A. Ruppert
E. Luce

Inventor:
Walter W. Richards,
by W. J. Howard
attys.

(No Model.)

2 Sheets—Sheet 2.

W. W. RICHARDS.

SIGNAL FOR LOCOMOTIVE HEAD LIGHTS.

No. 326,523.

Patented Sept. 15, 1885.

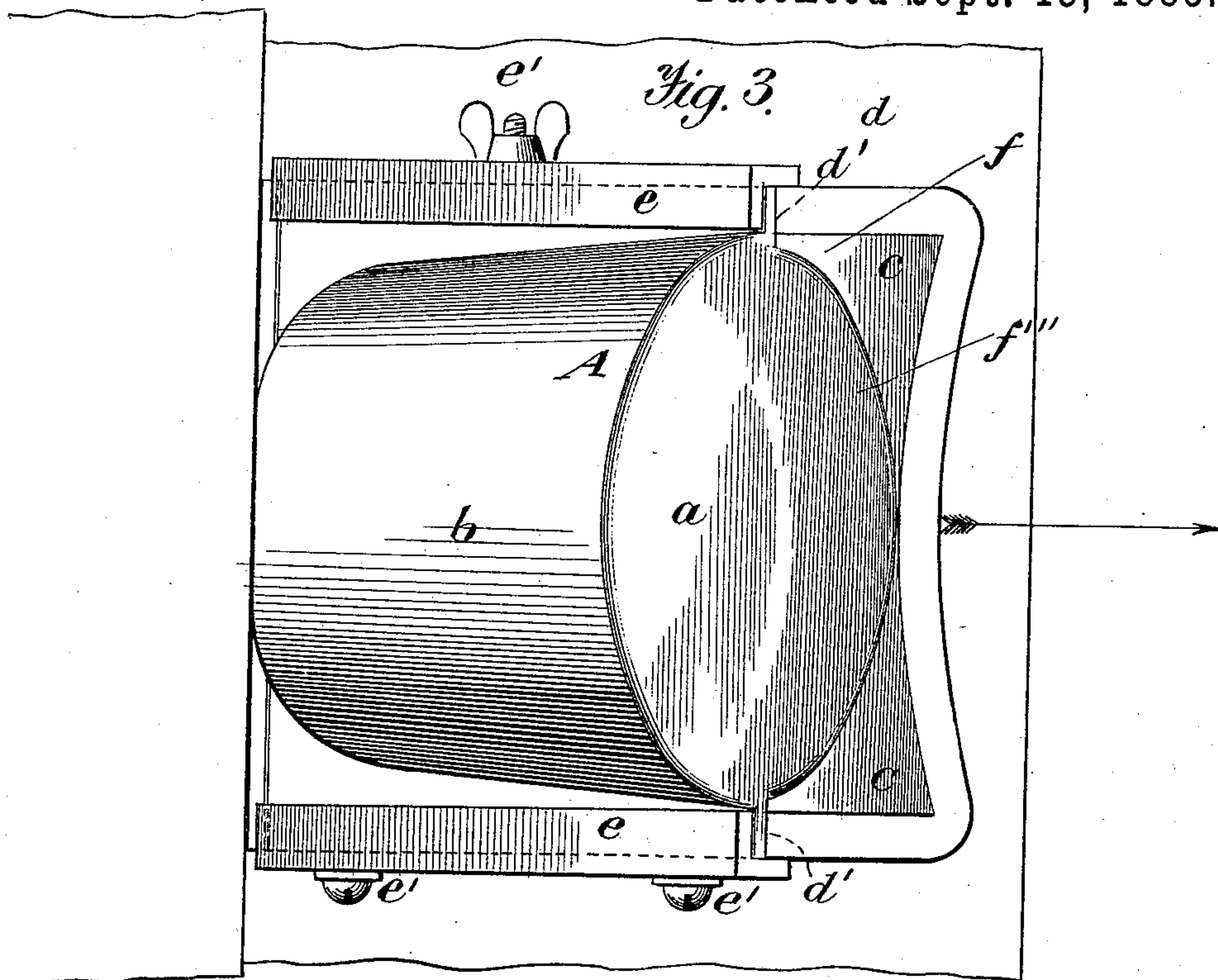
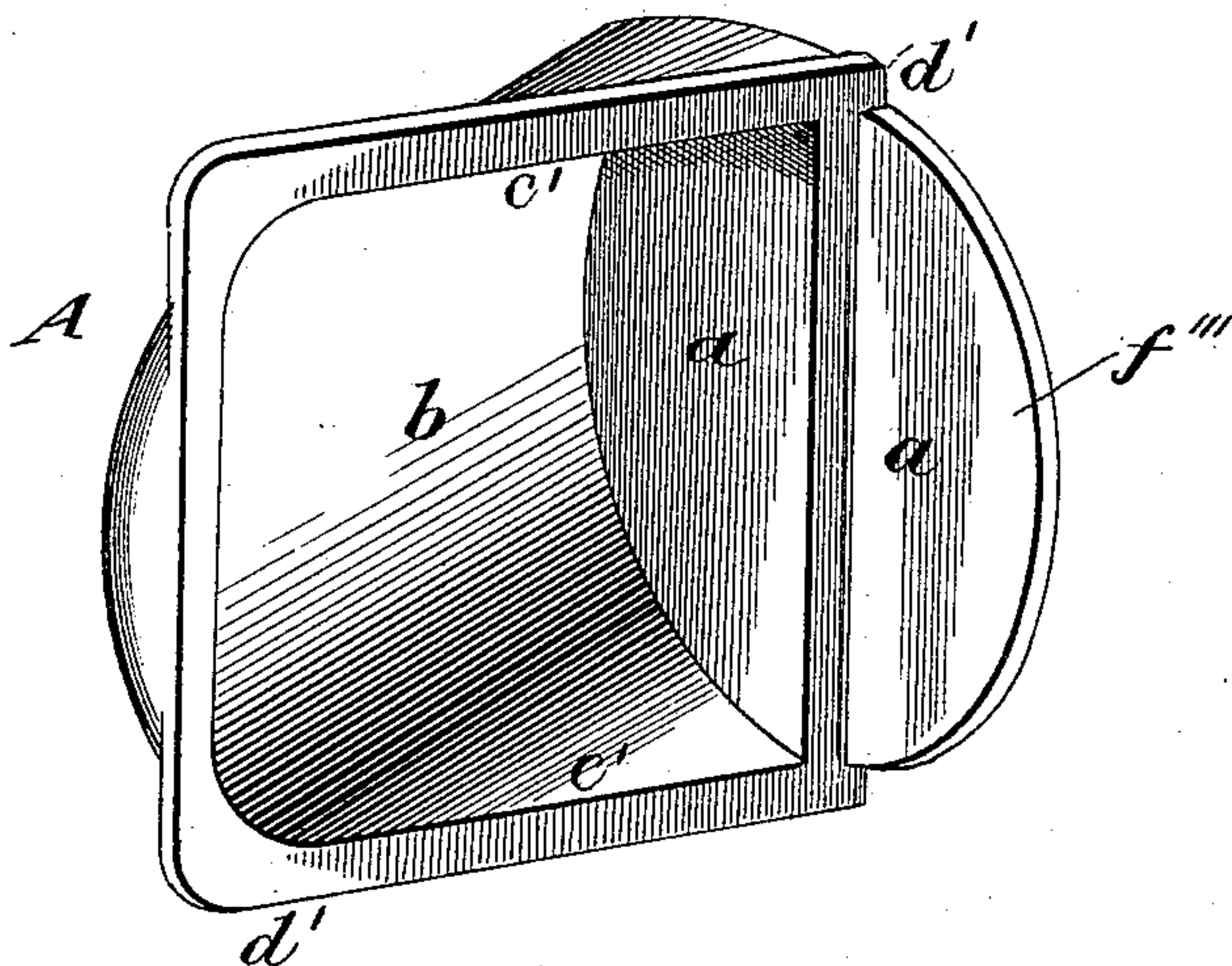


Fig. 4.



Witnesses:
A. Ruppert.
E. Cruise.

Inventor:
Walter W. Richards,
by G. W. J. Howard
att'y.

UNITED STATES PATENT OFFICE.

WALTER W. RICHARDS, OF PHILADELPHIA, PENNSYLVANIA.

SIGNAL FOR LOCOMOTIVE HEAD-LIGHTS.

SPECIFICATION forming part of Letters Patent No. 326,523, dated September 15, 1885.

Application filed December 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, WALTER W. RICHARDS, of the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Signals for Locomotive Head-Lights, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to the combination, with the rim of the head-light, of a transparent or translucent colored signal-glass in the form of a section or piece of a cylinder suitably attached to the rim, and arranged to stand out diagonally from the longitudinal center line of the casing of the head-light, the glass receiving light from the lamp through an opening cut in the rim, whereby a signal is made visible in front, at the sides, and from the rear of the engine. A glass of this character is placed at each side of the head-light.

In the accompanying drawings, Figure 1 is a top view or plan, partly in section. Fig. 2 is a rear end view. Fig. 3 is a side view of one of the signal-glasses, showing its application to the rim of the head-light. Fig. 4 is a perspective view of one of the signal-glasses, looking into its interior from the rear to the front. Fig. 5 is a side view of the angular frame which is secured to the rim of the head-light, and to which the signal-glass is removably attached.

Similar letters of reference indicate similar parts in all the views.

A is the signal glass. The front face, *a*, and side face, *b*, of the glass, which are at a right angle one to the other, are homogeneous, or made of one body or substance. The glass A is fitted to an angular frame, *c*, bolted or otherwise secured to the rim *d* of the lantern, the inner side, *c'*, of the glass standing at an angle corresponding with that of the contiguous part of the frame *c*.

By reference to Fig. 5 it will be seen that in the frame *c* (which in said figure is shown upon a reduced scale) the angular front portion, *f*,

is cut out at *f'* and provided with the circular recess *f''*, which, when the signal-glass is in position, receives the part *f'''* of the face *a*. (See Figs. 3 and 4.) The inner side, *k*, of the angular frame *c* is curved to fit the rim *d* of the head-light, a flange, *k'*, being formed upon the upper and lower sides and the front of the frame, as shown in Fig. 5.

The inner side, *c'*, of the glass A is provided with flanges or projections *d'*, which are embraced or held by fastening devices *e*, removably connected to the rim. The devices *e* consist of angle-bars, which abut against the flanges *d'* of the glass and lap over the frame *c*, being removably secured to the frame by screws *e'*. I prefer to attach the glass to the rim, which being in advance of the casing allows a better transmission of the rays for signaling purposes.

The mode of securing the glass A to the rim may be varied or modified.

I disclaim the invention described in Letters Patent No. 225,299, granted March 9, 1880, to Michael Nicholson, in which the rim is cut for the attachment thereto of a signaling appliance.

I claim as my invention—

1. In a locomotive head-light having a rim perforated to allow light from the lamp to pass through said rim, the signal-glass A, having the faces *a* and *b* and flanges *d'*, and the angular frame *c*, having the curve *k*, flange *k'*, circular cut *f'*, and recess *f''*, combined with fastening devices, substantially as set forth.

2. As an improved article of manufacture, the angular hollow colored transparent or translucent signal-glass A, having the faces *a* and *b* and flanges *d'*, all homogeneous, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand and seal this 27th day of November, A. D. 1883.

WALTER W. RICHARDS. [L. S.]

Witnesses:

HY. RANDALL,

FRANK RICHARDS.