

No. 662,872.

Patented Nov. 27, 1900.

E. M. KLEIN.
SIGNAL DISK.

(Application filed Oct. 12, 1900.)

(No Model.)

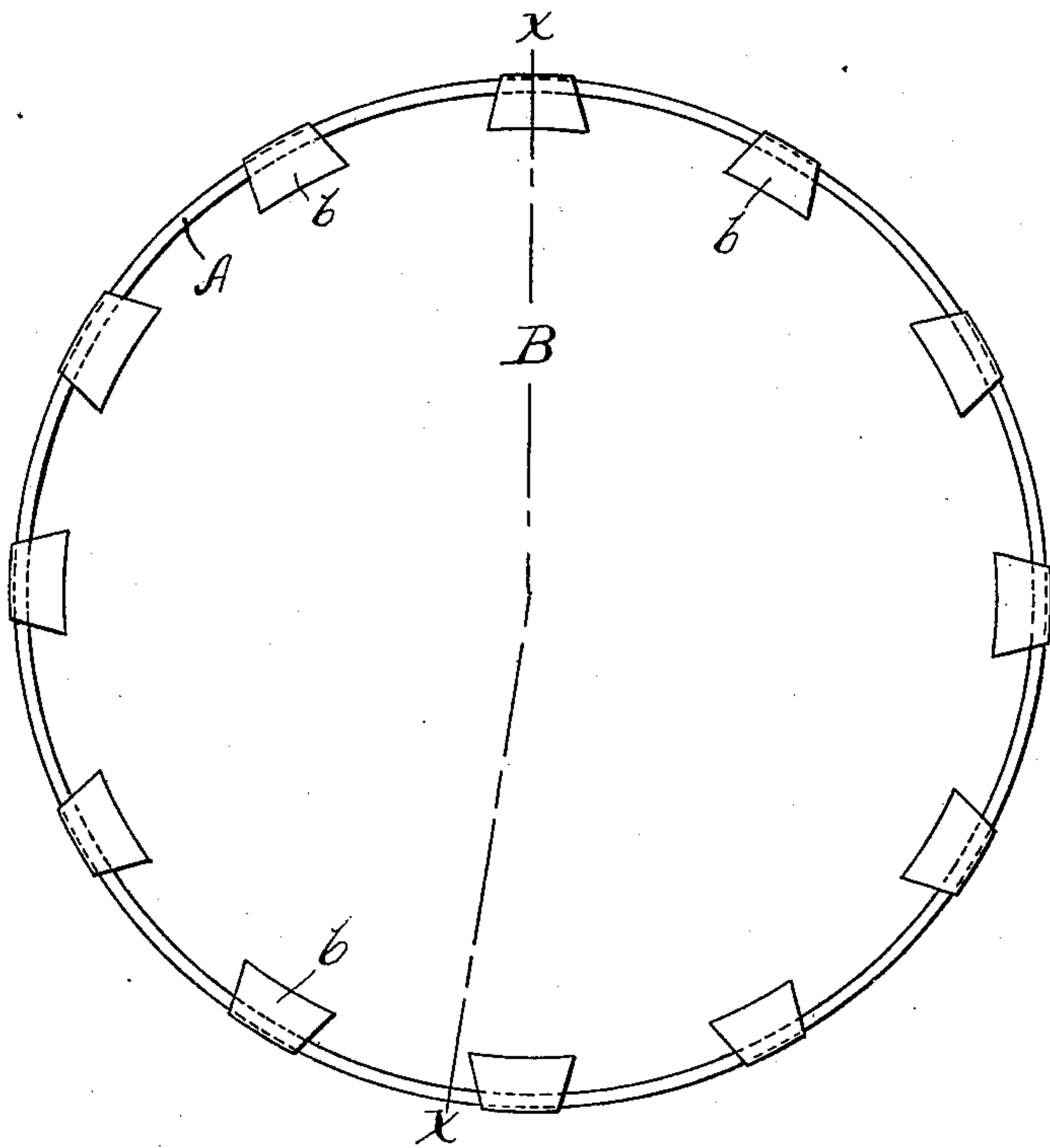


Fig. 1.

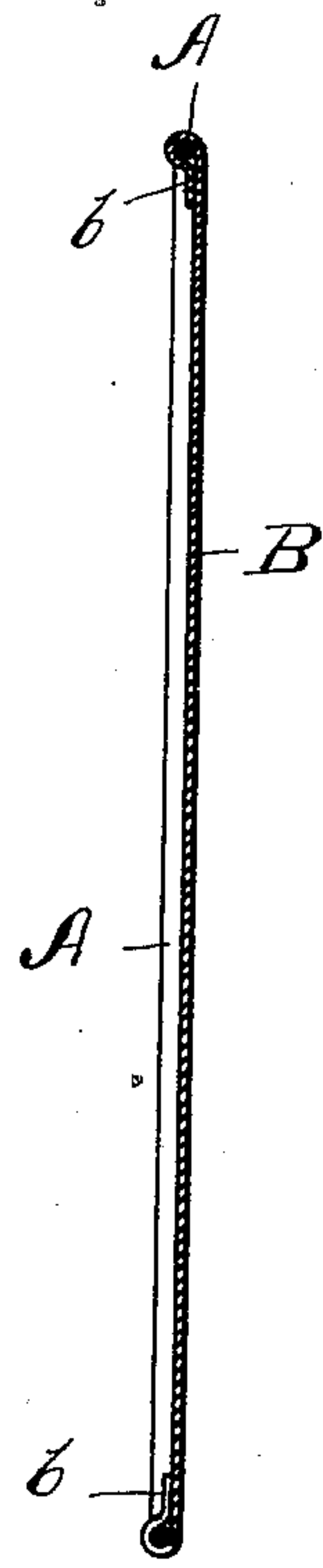


Fig. 2.

Witnesses
Julius G. Hansen
May Langer

Edward M. Klein Inventor

by *J. H. Stewart*

Attorney

UNITED STATES PATENT OFFICE.

EDWARD M. KLEIN, OF READING, PENNSYLVANIA.

SIGNAL-DISK.

SPECIFICATION forming part of Letters Patent No. 662,872, dated November 27, 1900.

Application filed October 12, 1900. Serial No. 32,870. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. KLEIN, a citizen of the United States of America, and a resident of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Signal-Disks, &c., of which the following is a specification.

My invention relates to an improved signal disk or arm such as are used in different railroad signal systems in connection with swinging and illuminating mechanisms to show required colors against approaching trains.

The invention consists in employing a suitably-colored transparent material—such as celluloid, pyroline, fiberloid, or the like—and uniting it to a metallic ring or frame by folding the suitably-cut edges of the colored celluloid sheet over the edges of the ring or frame and firmly securing said bent-over edges to the rear face of the sheet.

The invention is fully described in connection with the accompanying drawings and is specifically pointed out in the claim.

Figure 1 is a rear view of a signal-disk made in accordance with my invention, and Fig. 2 is a sectional view of the same on the line *xx* of Fig. 1.

A represents a ring formed of bent wire suitably united at the meeting ends, and B is a sheet of celluloid or similar transparent material having the required color, as red or green, incorporated in the material and of elastic yet firm body, readily conformable under heat and pressure to the required bending of the edges of the sheet around the ring A. The edges of the sheet are preferably cut approximately radially, so as to more

readily allow of this bending over the ring, portions being shown in the drawings as entirely cut away, so as to leave a series of turn-over ears *b b*, the intervening edges of the sheet coinciding with the outer edge of the ring or frame. In order to firmly unite the sheet with the latter, the ring A is laid concentrically upon the sheet B, and the ears *b b* are then bent over the edges of the ring and down against the rear face of the sheet B, a suitably-formed heated iron being employed to soften the sheet material and closely conform the bent ears *b b* to the ring A and the rear face of the sheet, to which latter the ears may be made to adhere tightly by employing an adhesive material, though this is not essential to a satisfactory uniting of the parts.

By means of my improved construction I provide a device which shows more clearly and brilliantly than those heretofore used and which will retain its color and form for an indefinite time, thus filling most satisfactorily the main purpose as a reliable signal and at the same time effecting a considerable saving in maintenance.

What I claim is—

As a new article of manufacture, a signal device comprising a ring or frame and a sheet of celluloid or like elastic material having its edges bent over and conformed to the said ring or frame to unite the two, substantially as set forth.

Signed at Reading, Pennsylvania, this 11th day of October, 1900.

EDWARD M. KLEIN.

Witnesses:

CAMERON E. STRAUSS,
D. M. STEWART.