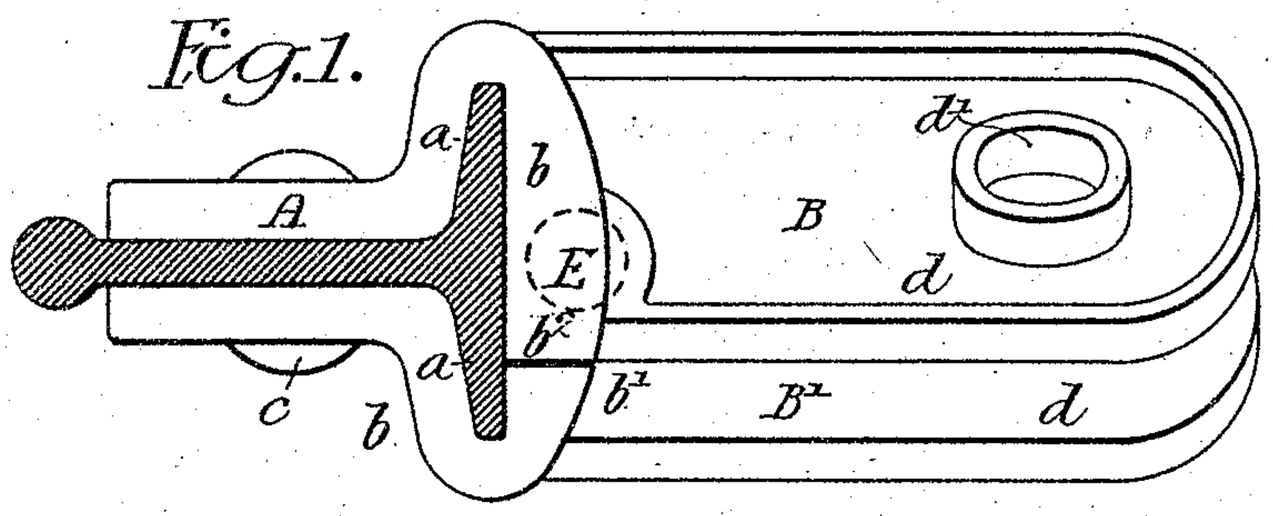
No. 781,545. PATENTED JAN. 31, 1905.

J. F. O'CONNOR.

BRAKE BEAM FULCRUM.

APPLICATION FILED MAY 2, 1904.

Fig. 1.



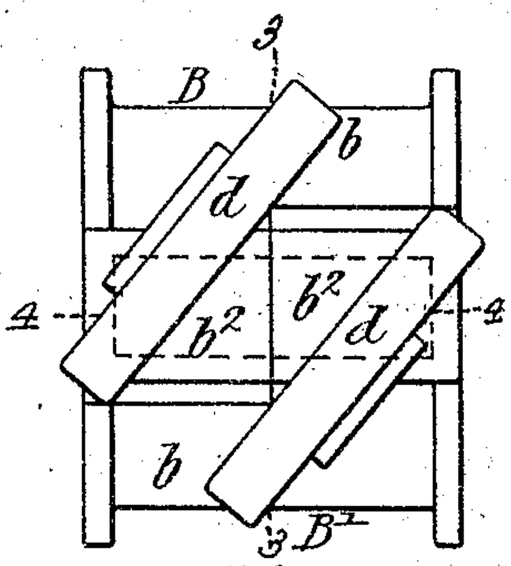


Fig. 2.

Fig. 3.

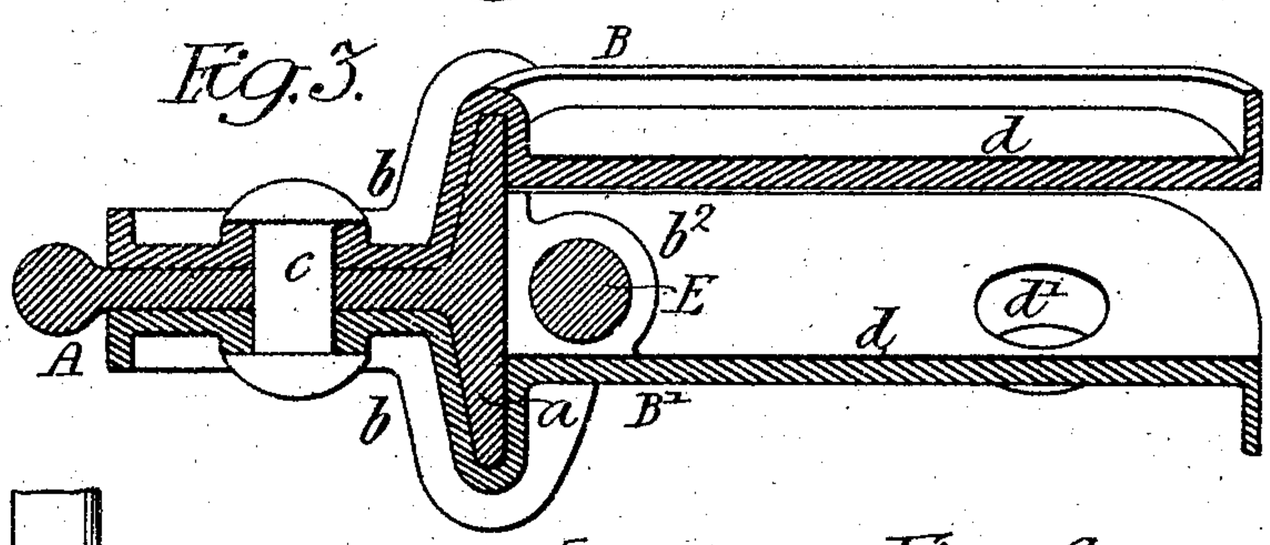


Fig. 4.

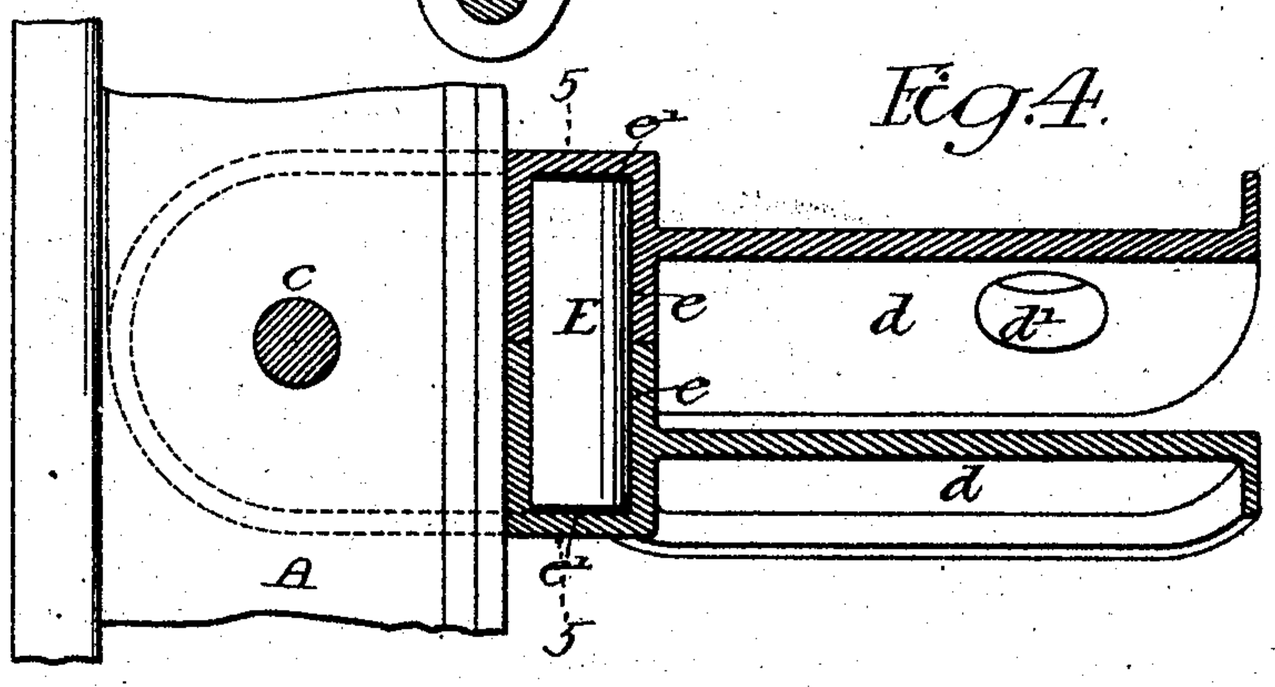


Fig. 5.

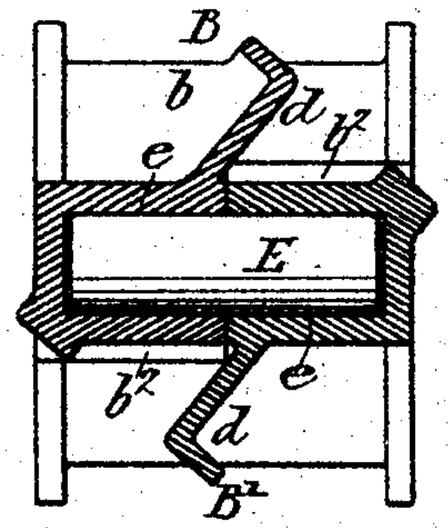


Fig. 6.

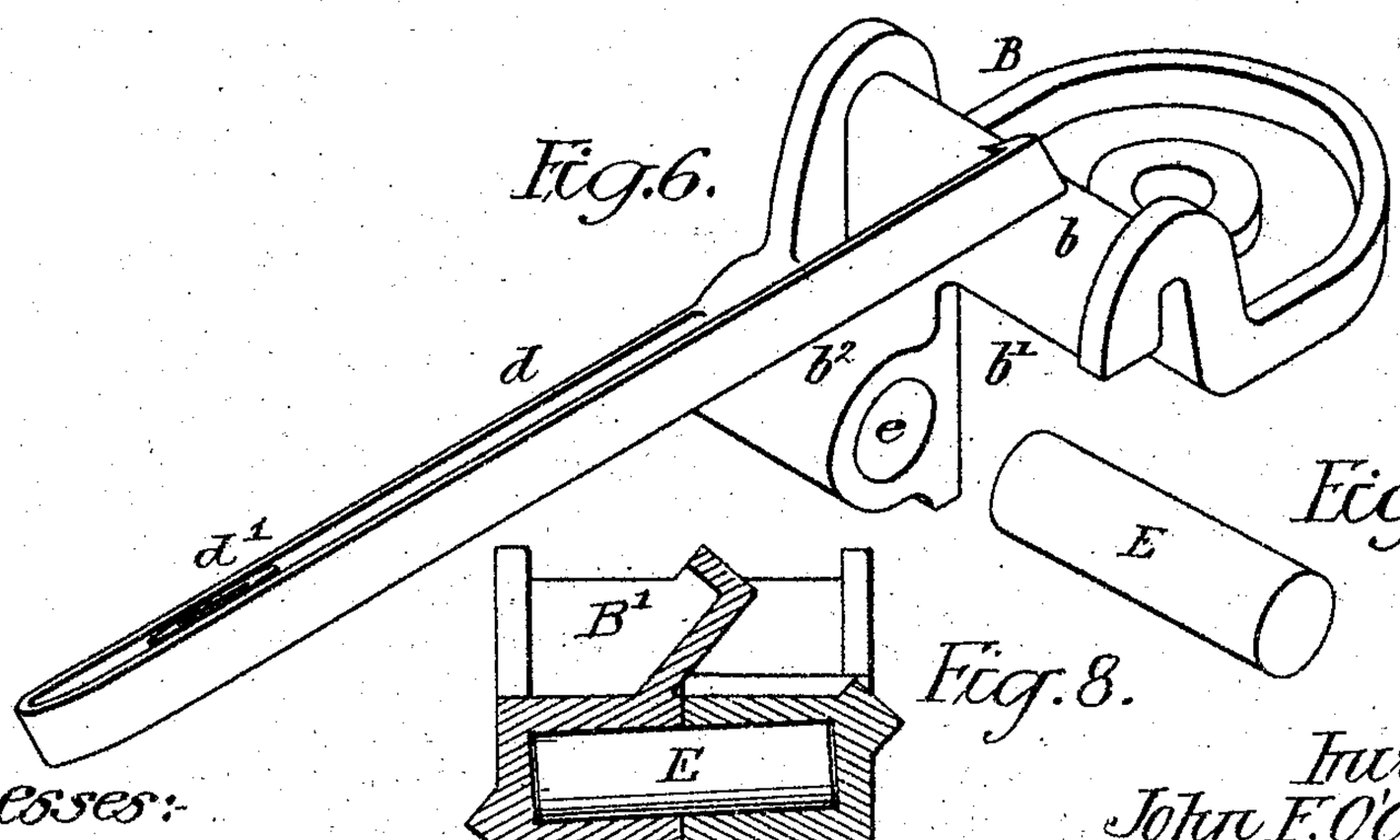


Fig. 7.

Fig. 8.

Witnesses:
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No. 781,545. Patented January 31, 1905.

UNITED STATES PATENT OFFICE.

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BRAKE-BEAM FULCRUM.

SPECIFICATION forming part of Letters Patent No. 781,545, dated January 31, 1905.

Application filed May 2, 1904. Serial No. 206,018.

To all whom it may concern:

Be it known that I, JOHN F. O'CONNOR, a citizen of the United States, residing at Easton, Pennsylvania, have invented certain Improvements in Brake-Beam Fulcrums, of which the following is a specification.

The object of my invention is to provide a two-part fulcrum for a brake-beam in which the two parts are preferably identical and which can be held rigidly by a pin and a single rivet. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved fulcrum applied to a brake-beam, the beam being in section. Fig. 2 is an end view. Fig. 3 is a section on the line 3 3, Fig. 2. Fig. 4 is a section on the line 4 4, Fig. 2. Fig. 5 is a section on the line 5 5, Fig. 4. Fig. 6 is a perspective view of one of the parts of the fulcrum. Fig. 7 is a perspective view of the pin, and Fig. 8 is a view showing the coupling-pin arranged at an angle.

A is the brake-beam of the ordinary cross-section, as shown in Figs. 1 and 3, having a flange *a* at each side.

B B′ are the two parts of the fulcrum, one made the counterpart of the other and each having a body portion *b*, which fits over the flanges *a a* of the beam and is secured thereto by a rivet or bolt *c*. Projecting from each body portion is an arm *d*, perforated at *d′* for the passage of the fulcrum-pin, to which the brake-lever is pivoted, the lever fitting between the two arms *d d*. The arms are arranged at an angle to the body portion, as shown, to accommodate the brake-lever. It will be noticed that the body portion of each part is cut away at *b′*, so that the projecting portion b^2 of one part will fit in the recess *b′* of the other part, as clearly shown in Fig. 2, and in each portion b^2 is a cavity *e* for the reception of the coupling-pin E, one half of the pin extending into the cavity of one part, B, and the other half of the pin extending into the cavity in the other part, B′, and arranged parallel with the beam. The cavities may be arranged at a slight angle, as shown in Fig. 8, so that when the two parts are coupled the angle of the pin will tend to draw them close together. It will be noticed that the cavities *e e* are closed by a wall *e′* at the outer end, so that when the parts are together the pin is prevented from moving longitudinally and is thus held in position. The pin E is shown circular in the present instance; but it will be understood that the pin and cavities *e e* may be any shape desired. In some instances the pin E may be rigidly attached to one part and loose in the other without departing from my invention.

To apply the fulcrum to the beam, the two parts are placed one on one side of the beam and the other on the opposite side, the pin is placed in one cavity, and the two parts drawn together, causing the pin to enter the other cavity. When the two parts are close together and in position, a rivet *c* is passed through the openings in the body portions and beam and headed, thus securing the fulcrum rigidly to the beam with but a single rivet. In extra heavy construction two or more rivets or bolts may be used, if desired.

I claim as my invention—

1. The combination in a brake-beam fulcrum, of two parts, each having a body portion arranged to fit the beam, an arm to which the brake-lever is hung, and each part having a cavity and a pin contained wholly within the cavities and coupling the two parts, substantially as described.

2. The combination in a brake-beam fulcrum, of two parts, with a pin engaging both parts and extending parallel to the brake-beam, and means for securing the two parts to the beam, substantially as described.

3. The combination in a brake-beam fulcrum, of two parts, each having a body portion and an arm, a cavity in each part closed at the outer end and a pin mounted in the cavity, substantially as described.

4. The combination in a brake-beam fulcrum, of two parts, each part having a body portion arranged to fit around a flange of a brake-beam and having an opening for the passage of a rivet by which the parts are secured to the beam, and having arms arranged at an angle to which the brake-lever is piv-

oted, each part having a cavity closed at the outer end and a pin mounted in the cavities and coupling the two parts, substantially as described.

5. The combination in a brake-beam fulcrum, of two similar parts, each having a body portion and an arm, the body portion of one part having a projection fitting a recess in the body portion of the other part, a cavity in each projection closed at one end and a pin mounted in the cavities, substantially as described.

6. The combination in a brake-beam fulcrum, of two parts, a body portion and an arm forming each part, a cavity in each part arranged at an angle and closed at one end, and a pin mounted within the cavities, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN F. O'CONNOR.

Witnesses:
CHAS. B. BRUNNER,
JOHN BRUNNER.