

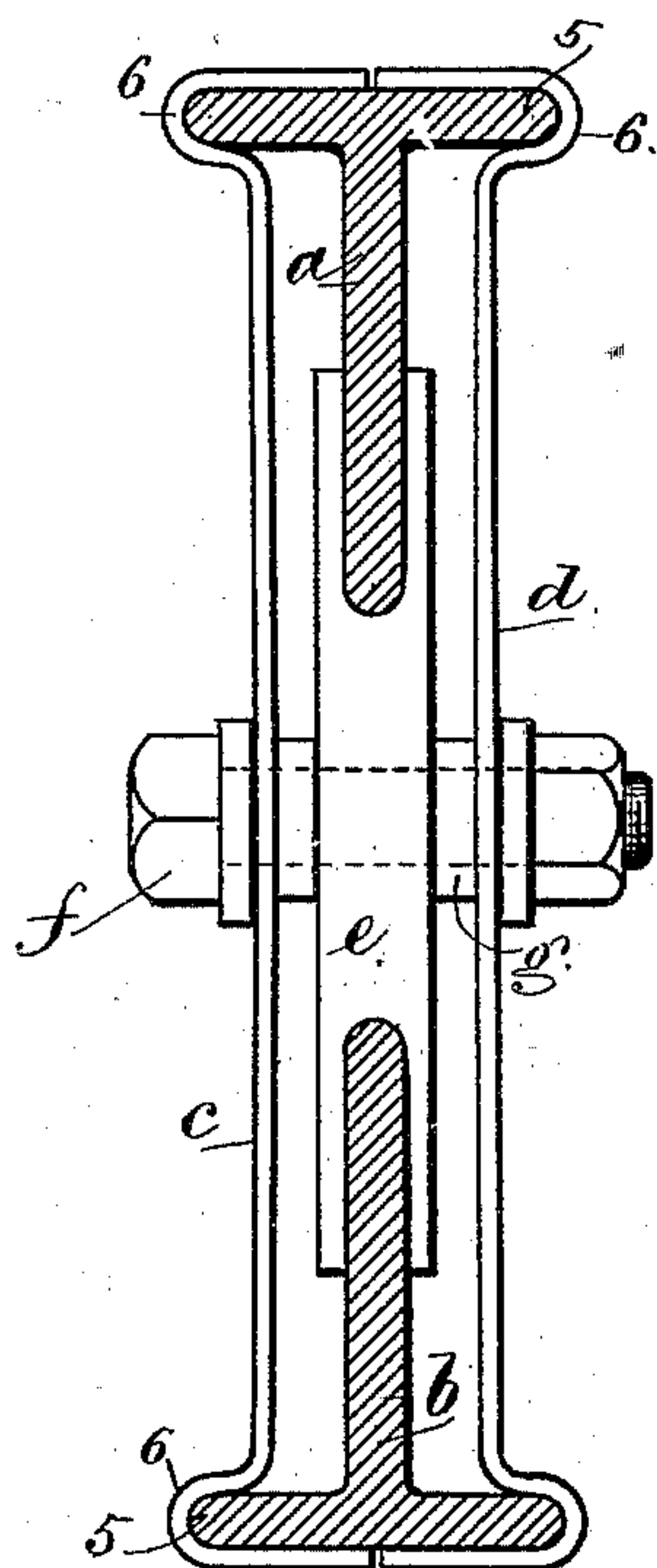
(No Model.)

G. W. DITHRIDGE.  
BEAM OR SILL.

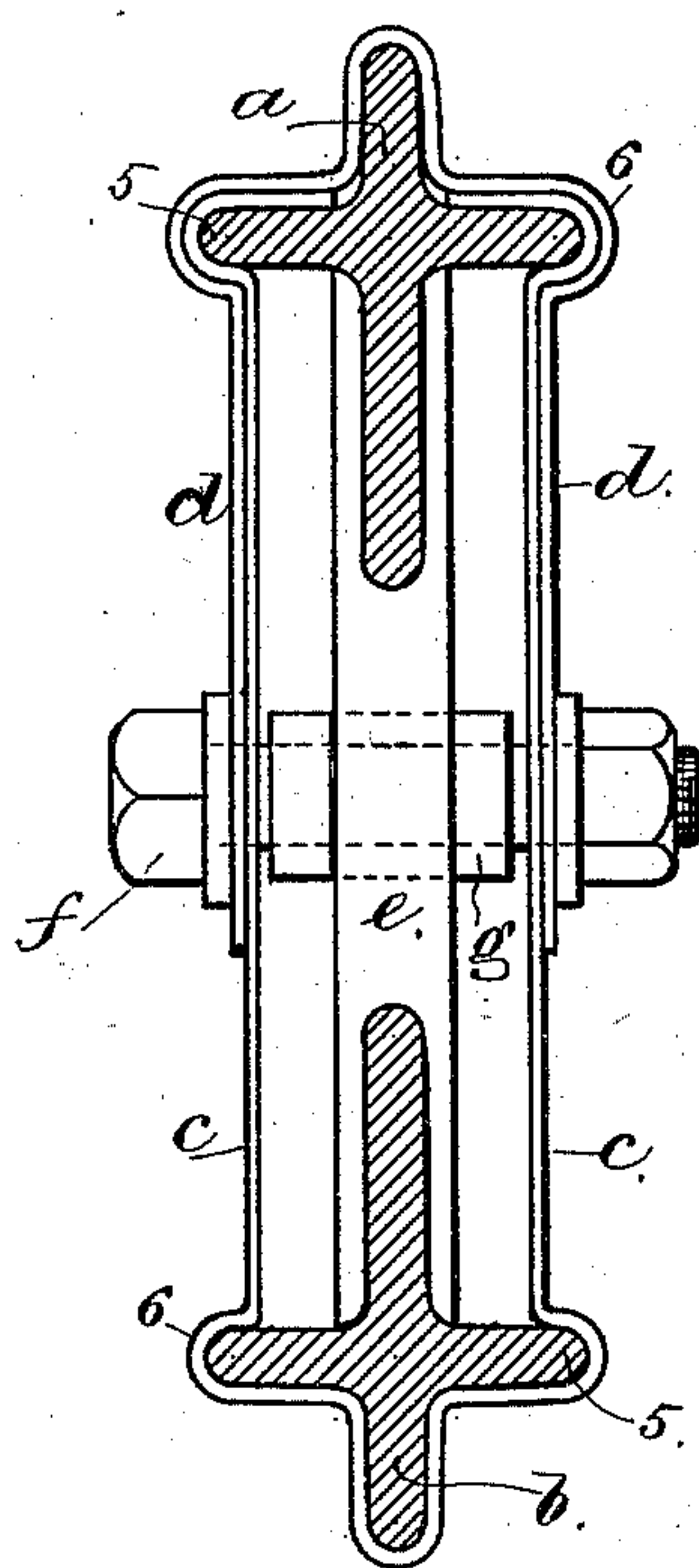
No. 426,561.

Patented Apr. 29, 1890.

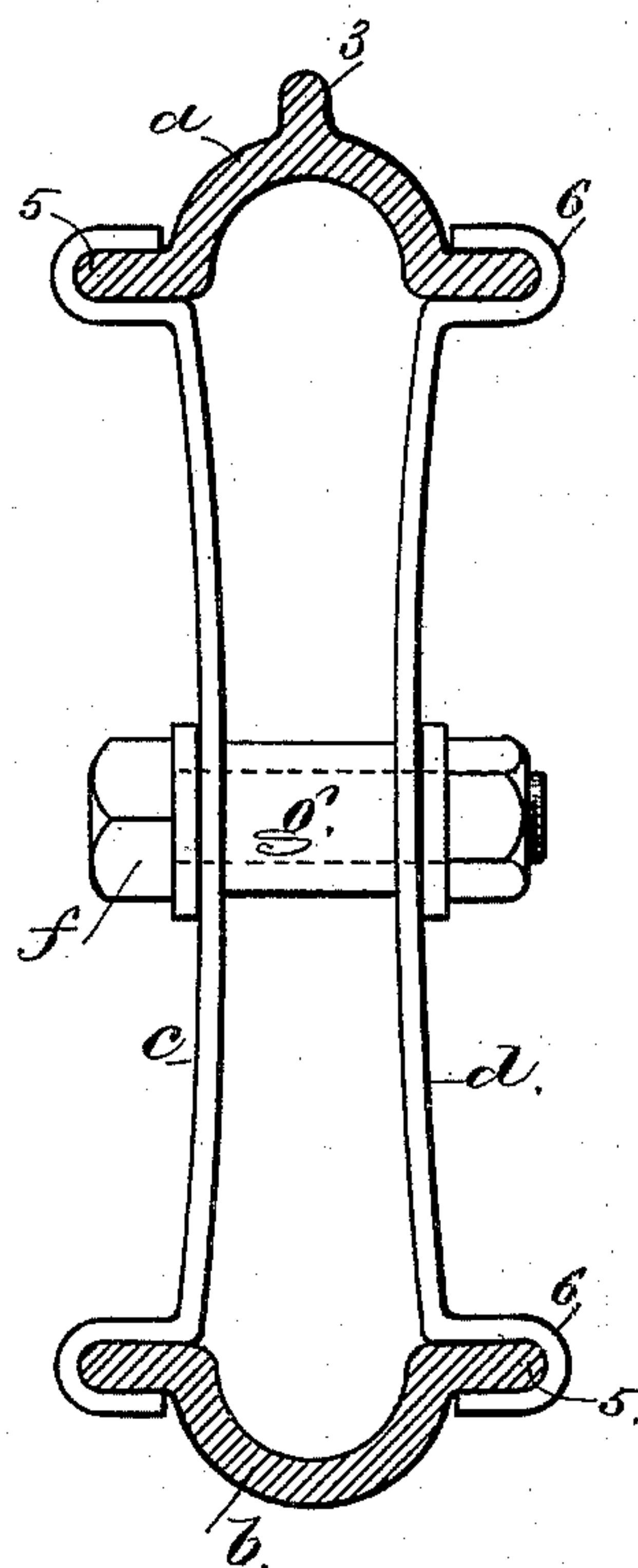
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses*  
*Harold Terrell*  
*Chas. H. Smith*

*Inventor*  
*George W. Dithridge*  
*per Lemuel W. Terrell*

*attg*

# UNITED STATES PATENT OFFICE.

GEORGE W. DITHRIDGE, OF NEW YORK, N. Y.

## BEAM OR SILL.

SPECIFICATION forming part of Letters Patent No. 426,561, dated April 29, 1890.

Application filed August 28, 1889. Serial No. 322,180. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. DITHRIDGE, of the city, county, and State of New York, have invented a new and useful Improvement in Beams or Sills, of which the following is a specification.

My invention relates to beams or sills for buildings, elevated-railroad structures, and railroad-car bodies; and my invention consists in a beam or sill having upper and lower members or bars formed of bars of rolled metal with rounded edges or flanges and vertically-placed metal straps with hook-shaped ends to engage the rounded edges of the upper and lower bars, and cross-bolts to clamp and hold the parts together in forming the beam or sill.

In the drawings, Figures 1, 2, and 3 represent by cross-sectional views various forms or modifications of my invention.

The bars *ab*, composing the upper and lower members of my improved beam or sill, are of heavy rolled metal, with flanges having rounded edges. The bars *ab*, Fig. 1, are T-shaped, those in Fig. 2 are cross or + shaped, while those in Fig. 3 are curved, as half-circles, and central stiffening-ribs 3 may be employed in connection with this latter form. All of these bars *ab* have flanges with rounded edges 5, and I provide vertically-placed straps *c d*, preferably formed from plates or bands of rolled steel of any desired width and thickness, and said straps are formed with hook-shaped ends 6, adapted to engage the rounded edges of the upper and lower bars *ab*.

In Figs. 1 and 3 two straps *c d* are shown, one at each side, and in Fig. 2 the two straps

surround and conform to the contour of the upper and lower members *ab*, and the middle and end portions of one strap are within the other, so that the sides lap.

The central clamping or tension bolts *f* serve to draw up the straps in forming the beam or sill, and the tubular sleeves or washers *g* around the bolts form stops against which the straps can be screwed up by the bolts and nuts.

In Figs. 1 and 2 I have shown at *e* central stay plates or blocks grooved on their edges for the reception of the inner flanges of the upper and lower members *ab*, and the bolts *f* pass through the stay-plates, and the tubular sleeves or washers *g* are at each side thereof.

I claim as my invention—

1. The combination, in a beam or sill, of the upper and lower flanged bars with rounded edges, and the vertically-placed straps with hook-shaped ends to engage said rounded edges of the flanges, and the connecting-bolts, substantially as specified.

2. The combination, in a beam or sill, of the upper and lower flanged bars with rounded edges, and the vertically-placed straps with hook-shaped ends to engage said rounded edges, the connecting-bolts *f*, sleeves *g*, and stay-plates *e*, substantially as set forth.

Signed by me this 22d day of August, A. D. 1889.

GEO. W. DITHRIDGE.

Witnesses:

GEO. T. PINCKNEY,  
WILLIAM G. MOTT.