

(No Model.)

W. G. OLPHERTS.  
CHAIR SLEEPER FOR RAILWAYS.

No. 303,540.

Patented Aug. 12, 1884.

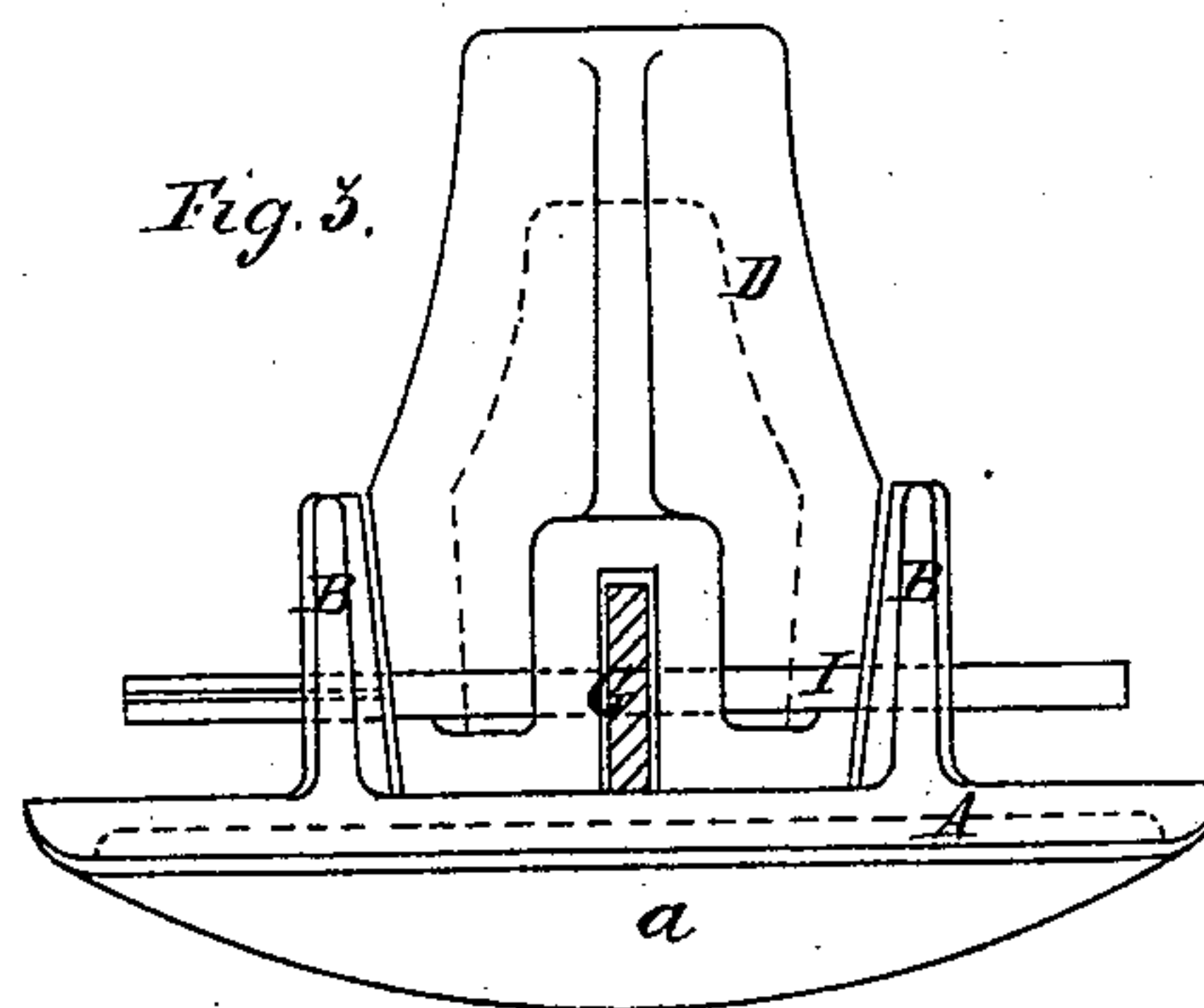
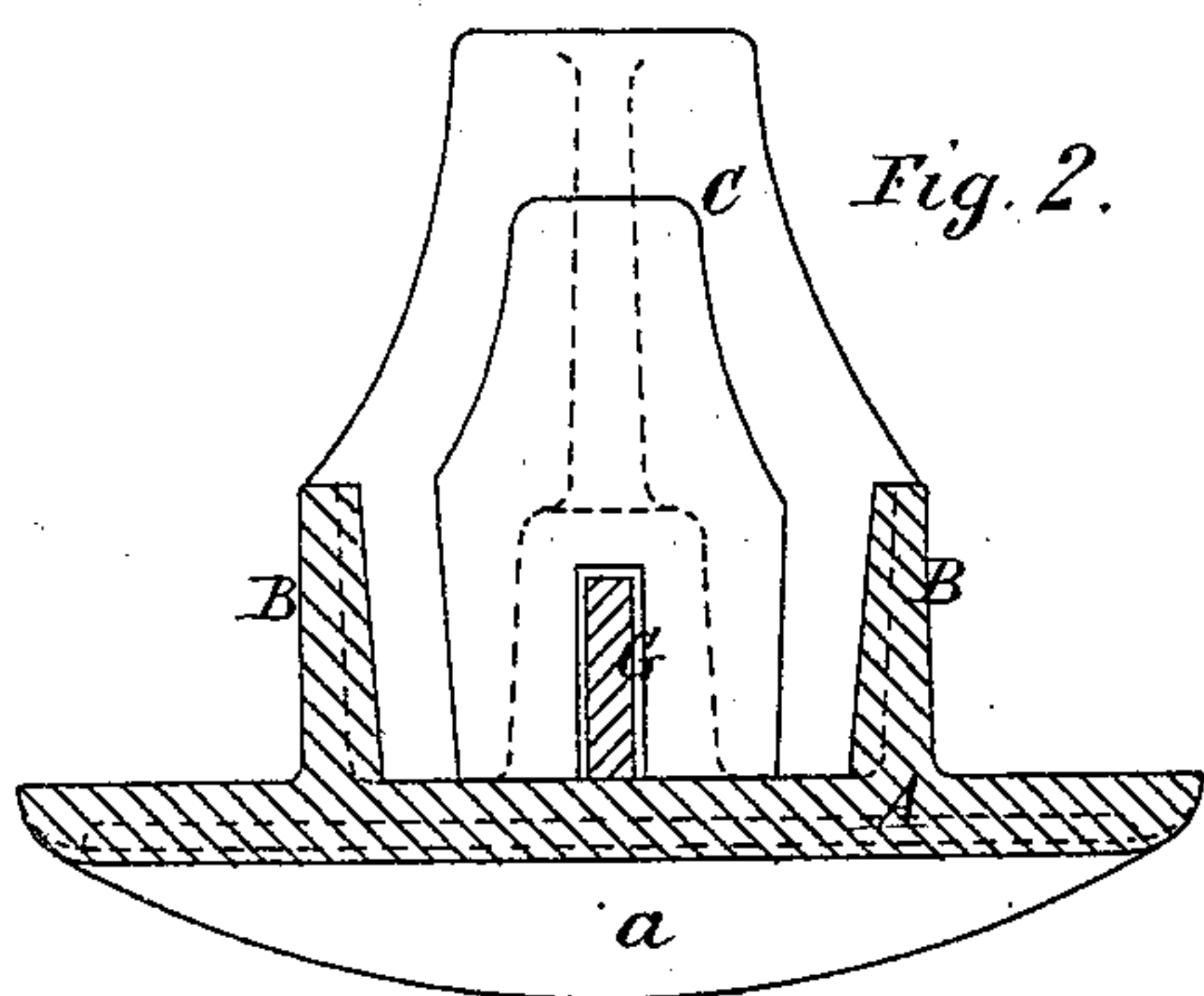
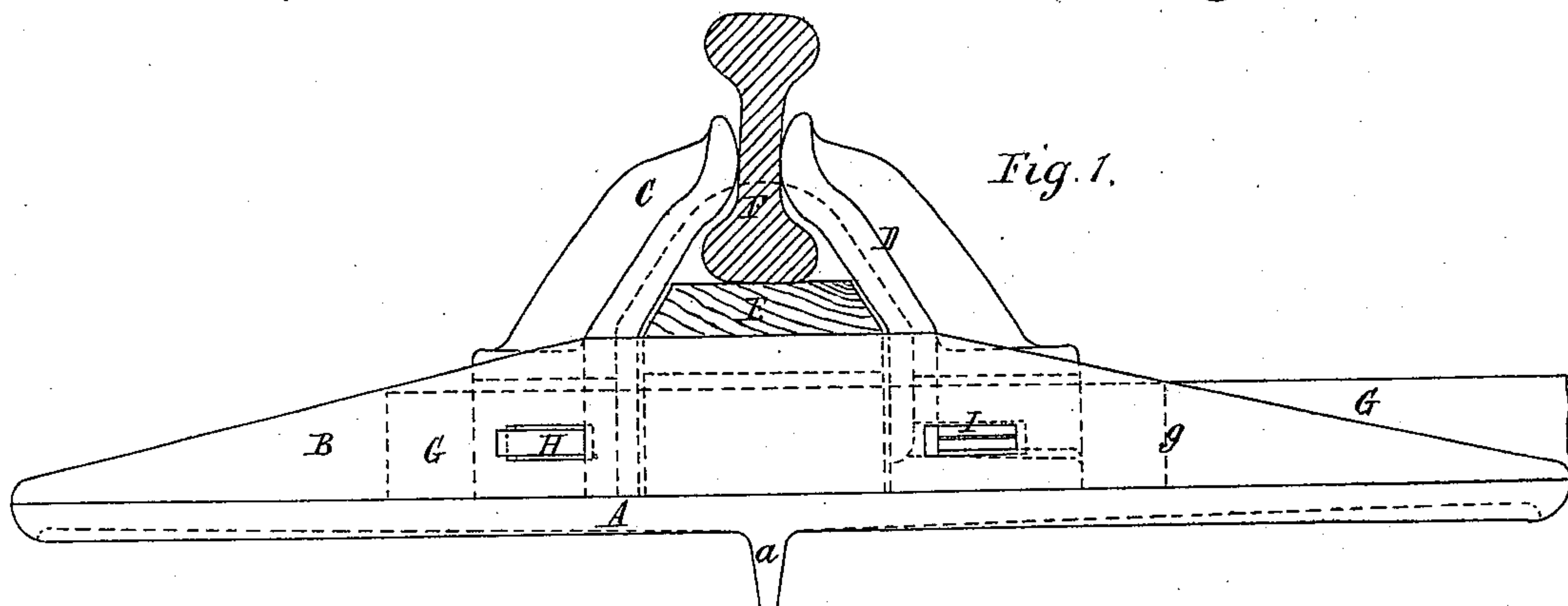
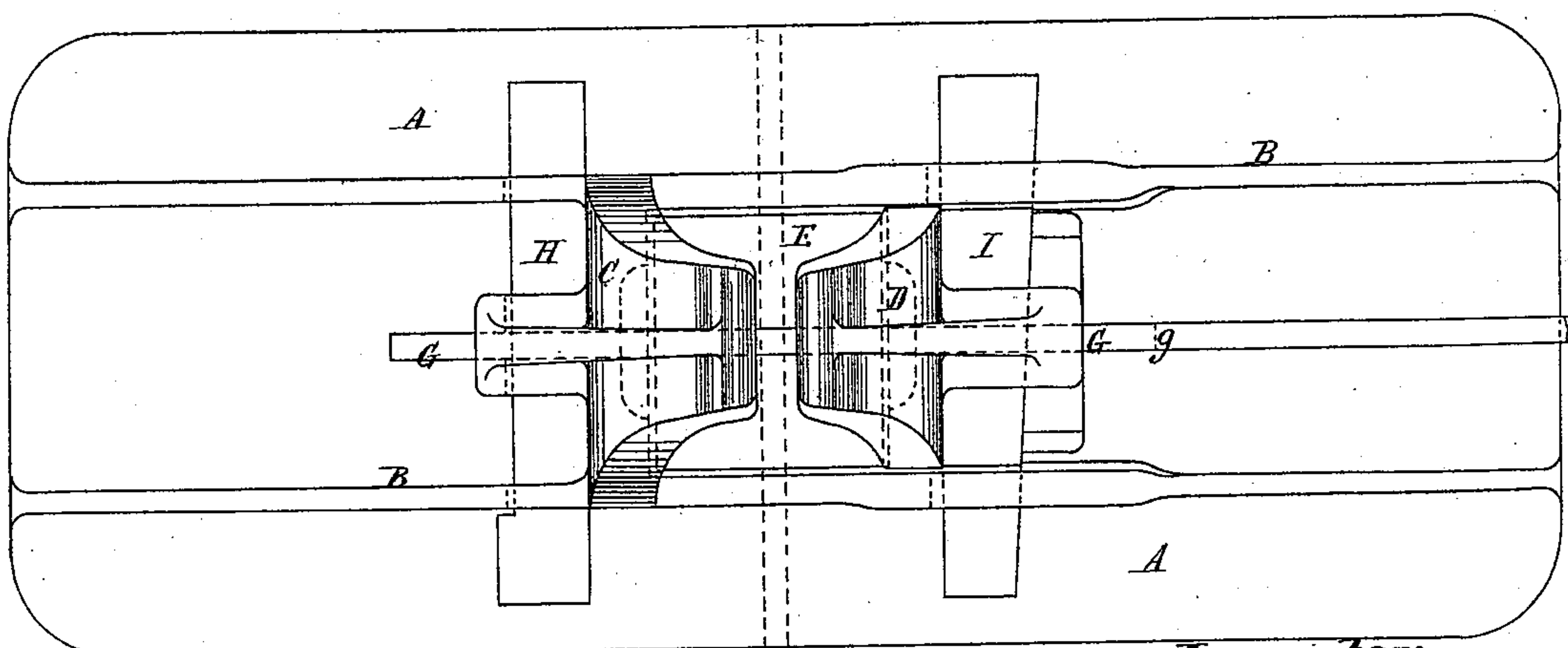


Fig. 4.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

WYBRANTS GEORGE OLPHERTS, OF HOWRAH, BENGAL, INDIA.

## CHAIR-SLEEPER FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 303,540, dated August 12, 1884.

Application filed May 26, 1884. (No model.) Patented in India July 24, 1877, No. 8, and in England February 17, 1879, No. 634.

*To all whom it may concern:*

Be it known that I, WYBRANTS GEORGE OLPHERTS, a citizen of England, residing at Howrah, Bengal, India, have invented a new and useful Improvement in Chair-Sleepers for Railways, (for which I have obtained a patent in Great Britain, No. 634, dated February 17, 1879, and in India, dated July 24, 1877, No. 8,) of which the following is a specification.

My invention relates to a construction of combined sleeper and chair for railways, which I will describe, referring to the accompanying drawings.

Figure 1 represents a transverse section of a rail, with elevation of sleeper, according to my invention. Fig. 2 is a transverse section. Fig. 3 is a side elevation showing the movable jaw thereof, and Fig. 4 is a plan of the sleeper.

A is the plate of the sleeper, of rectangular form, rounded off at the corners, and is anchored in the ballast by an under transverse rib, *a*. It might, however, be bowl-shaped, or of other suitable form to give a broad and steady bearing. On its upper face two longitudinal ribs, B B, and one of the jaws, C, of the chair are cast in one piece with the sleeper-plate. The other jaw, D, of the chair is made to slide freely between the ribs B B, and in the rectangular space between these ribs and the jaws is placed a block, E, of wood or material having a certain degree of elasticity, forming a cushion, on which rests the rail F. A tie-bar, G, which may be that which ties together the sleepers on opposite sides of the railway-line, or may be simply a short bar terminating at *g*, passes through holes in bosses of the two jaws C and D, and has driven through it and through suitable slots in the sleeper a cotter, H, and a taper key, I, which are preferably split at their ends. For placing the rail, the jaw D is withdrawn sufficiently far to admit the block E and the rail F between the jaws. The rail is placed on the

block. The jaw D is then pushed up against the rail, and the key I is driven so as to cause the rail to be clamped firmly between the jaws C and D, after which the split ends of the cotter and key are opened a little to prevent them from being slackened back. Instead of employing tie-bars G, with cotters and keys, bolts and nuts might be employed, the holes in the jaws being made of suitable form to receive them.

Having thus described the nature of the said invention and the best way I know of performing the same, I claim—

1. A chair-sleeper for railways, consisting of the plate formed integral with the fixed jaw, and two longitudinal ribs projecting upward from its upper surface, said ribs extending into the inner face of the fixed jaw to sustain it, and the movable jaw resting upon the upper surface of the plate between the two ribs, said jaws and ribs constituting a rectangular space to receive the wood cushion for the rail, substantially as described.

2. A chair-sleeper for railways, consisting of the plate cast integral with the fixed jaw C, and two longitudinal ribs, B B, on its upper surface, which extend into the inner face of and support the said jaw, and to create a receptacle for a wood cushion, and the movable jaw D, arranged between the two ribs to move toward the fixed jaw, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 22d day of April, A. D. 1884.

WYBRANTS GEORGE OLPHERTS.

Witnesses:

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*Clerk District Engineer's Office, East Indian Railway, Howrah, Bengal.*

NOBOGOPAL BANERGIE,  
*Cashier District Engineer's Office, East Indian Railway, Howrah, Bengal.*