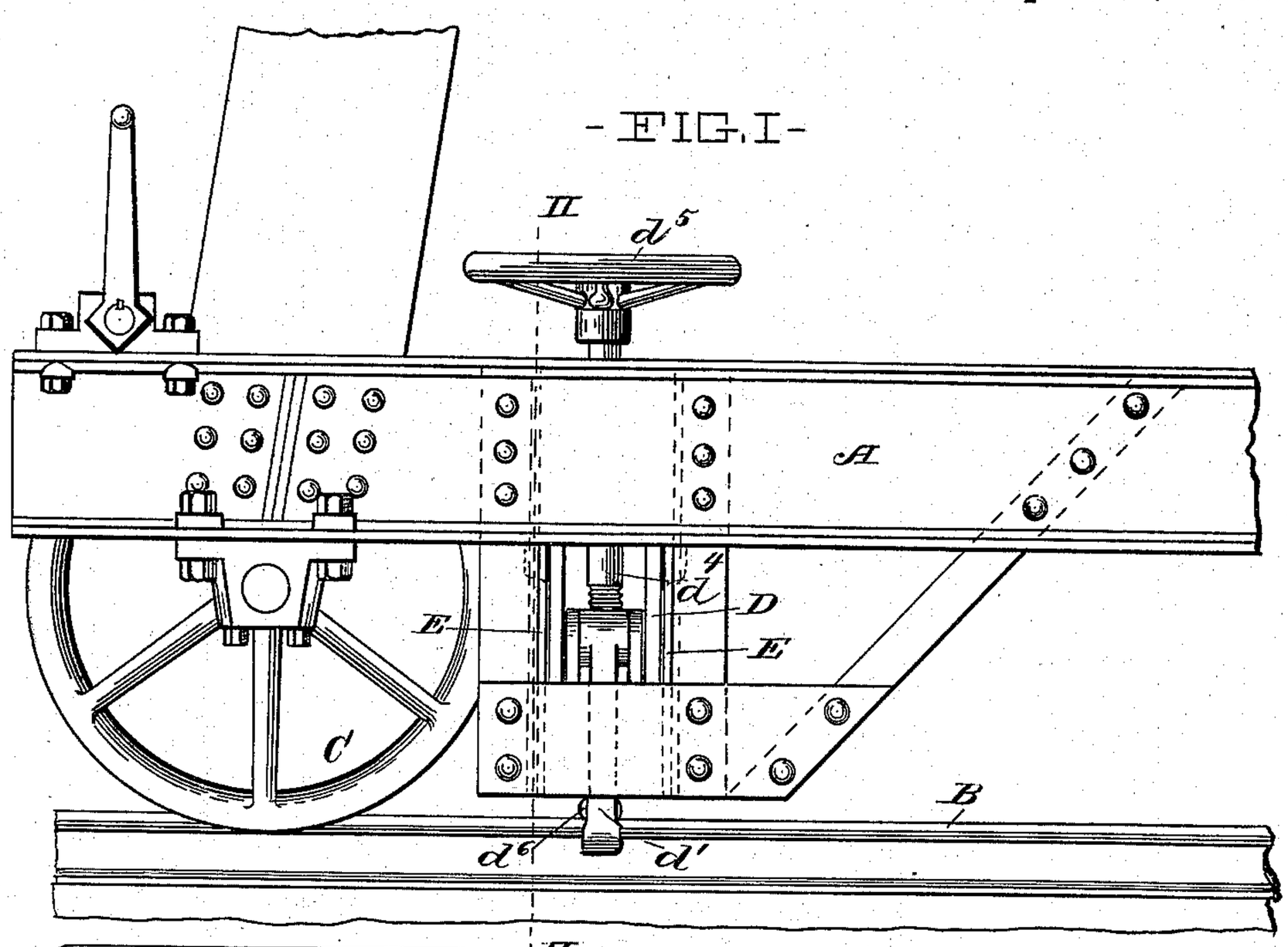
(No Model.)

P. RASCH.

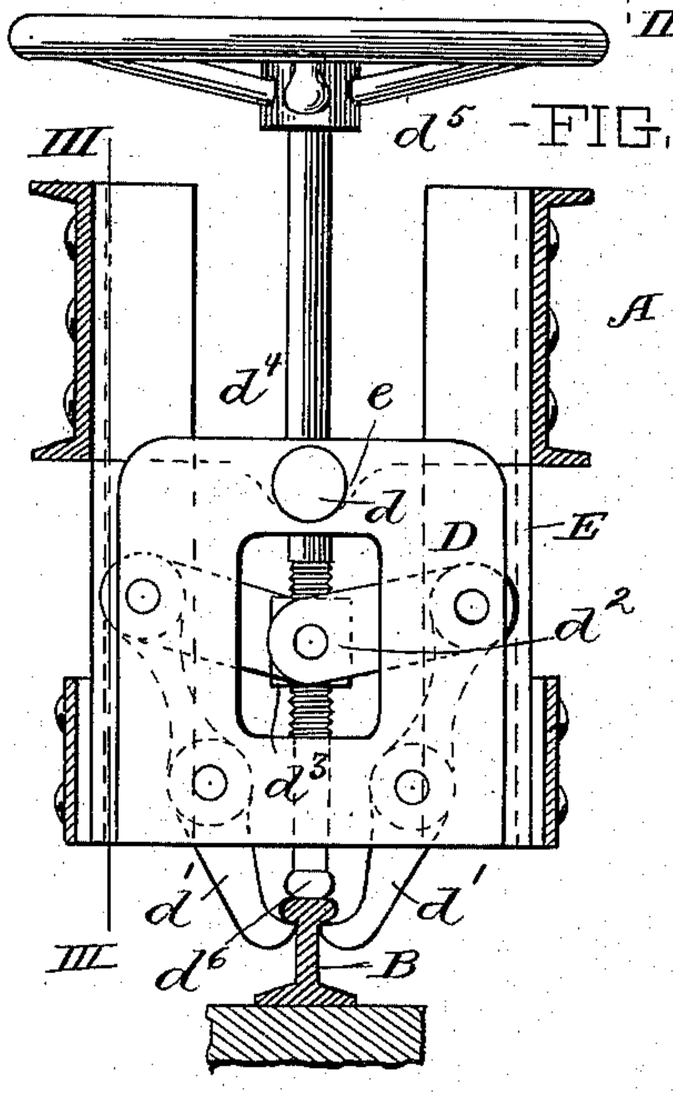
RAIL CLAMP FOR HOISTING AND CONVEYING APPARATUS.

No. 568,071. Patented Sept. 22, 1896.

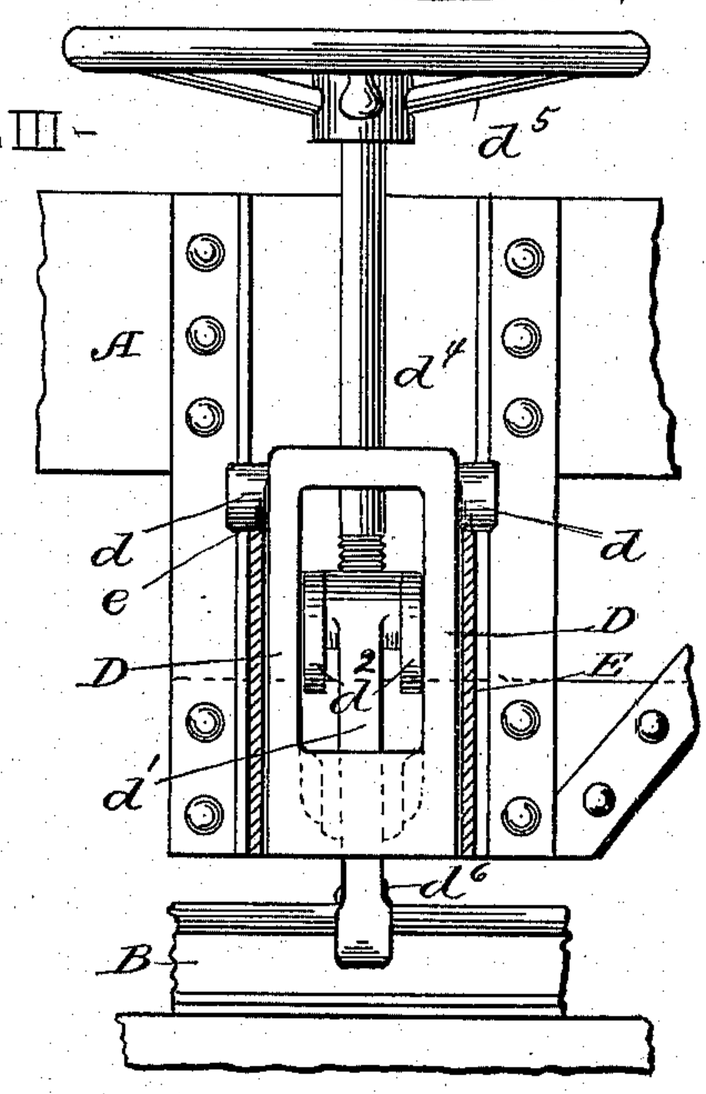
-FIG. I-



-FIG. II-



-FIG. III-



WITNESSES:

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UNITED STATES PATENT OFFICE.

PETER RASCH, OF CLEVELAND, OHIO.

RAIL-CLAMP FOR HOISTING AND CONVEYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 568,071, dated September 22, 1896.

Application filed October 25, 1895. Serial No. 566,825. (No model.)

To all whom it may concern:

Be it known that I, PETER RASCH, a subject of the King of Denmark, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Rail-Clamps for Hoisting and Conveying Apparatus, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The annexed drawings and the following description set forth in detail one mechanical form embodying the invention, such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings, Figure I represents a side elevation of one truck for a hoisting and conveying apparatus, illustrating the application of my invention; Fig. II, a section on the line II II in Fig. I, illustrating the clamping device; and Fig. III, an edge view of the clamping device, showing the outer frame portions broken away.

In hoisting and conveying apparatus which is supported upon upright frame structures traveling upon rails, for the purpose of rendering the apparatus transportable to the places where the apparatus is to be employed it is of importance to have the truck-bases of such upright structures secured to the rails in such manner that the structures may be restrained from moving along the rails and may be prevented from tilting on account of the strain upon the upper portions of the structures. Clamps of various kinds have been provided for such structures, which clamps engage the rails and thus prevent the structure from tilting and traveling. Inasmuch, however, as the truck-bases of such structure are rigid, the wheels of the trucks are usually formed with broad treads and with flanges at both edges of the treads, so that the wheels may remain upon the rails when the truck-base is moved over a curve of the rails or if an inequality in the alinement of the rails occurs. A rail-clamp for such a truck is usually arranged so as to have the gap of its jaws center with the tread of the wheel, which arrangement will bring the clamp out of line with the rail when the truck is placed upon a curved or unevenly-alined rail portion, as the clamps with which I am acquainted have usually been rigidly supported in the truck, such as, for example, the clamp in the hoisting and conveying tramway mechanism for which United States Letters Patent No. 505,638 were granted to me as assignor to the King Bridge Company on the 26th day of September, 1893.

It is the object of the present invention to improve upon such form of rail-clamp and to provide a clamp which may at all times be capable of engaging and clamping the rail.

In the drawings are illustrated portions of the sills or beams A, which form the base of the upright frame structure, and which are movably supported upon the rails B by wheels, one, C, of which is illustrated in Fig. I. The clamp has a frame D, which is provided with trunnions *d* upon its sides, near the upper edge, and said trunnions project fore and aft in their relation to the frame structure and rest in bearings *e*, formed in transverse plates E between the sills. The jaws *d'* of the clamp are like the jaws of the clamp set forth in the above-referred-to patent and have links d^2 pivoted to their upper arms. Said links are pivoted to a nut d^3 upon an actuating-screw d^4, which is journaled in the clamp-frame and provided with a hand-wheel d^5 at its upper end. The screw has a knob d^6 upon its lower end, which bears against the tread of the rail when the screw is turned down and the jaws forced against the rail, and which bears against the lower journal-bearing for the screw in the clamp-frame when the screw is turned upward and the jaws opened. This knob performs the office of the collar upon the screw in the former patent and dispenses with a rigid bearing in the truck for the screw, which bearing would interfere with the free transverse swing of the clamp upon its trunnions. When the screw is screwed down and strikes the tread of the rail, the further rotation of the screw will raise the nut and thus spread the upper arms of the jaws, causing the lower arms to clamp the rail. When the screw is screwed up and the knob stops against the lower screw-bearing, the screw cannot be further raised, and the nut will be lowered, loos-

ening the clamp. The clamp may be swung to either side, so that it will be capable of clamping the rail regardless of curve or alinement of the rail.

Other modes of applying the principle of my invention may be employed for the mode herein explained. Change may therefore be made as regards the mechanism thus disclosed, provided the principles of construction set forth respectively in the following claims are employed.

I therefore particularly point out and distinctly claim as my invention—

1. The combination with a wheeled truck formed with fore-and-aft bearings, of a rail-clamp having trunnions upon its sides journaled in said bearings to admit of the clamp having lateral swing, substantially as set forth.

2. The combination of a clamp-frame formed with a bearing, jaws pivoted in said frame, a screw journaled to rotate in the bearing of the frame and provided with a knob at its end, a nut upon said screw, and links pivoted to the nut and to the jaws, substantially as set forth.

3. The combination of a wheeled truck formed with fore-and-aft bearings, a clamp-frame having trunnions in said bearings and having vertical bearings, a screw journaled in said latter bearings and provided with a hand-wheel at its upper end and a knob at its lower end, jaws pivoted in the clamp-frame, a nut upon the screw, and links pivoted to the jaws and to the nut, substantially as set forth.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 22d day of October, A. D. 1895.

PETER RASCH.

Witnesses:
WM. SECHER,
DAVID T. DAVIES.