(No Model.)

J. W. SEAVER.

CENTER FOR TURN TABLES AND BRIDGES.

No. 323,743. Patented Aug. 4, 1885.

FIG. 1.

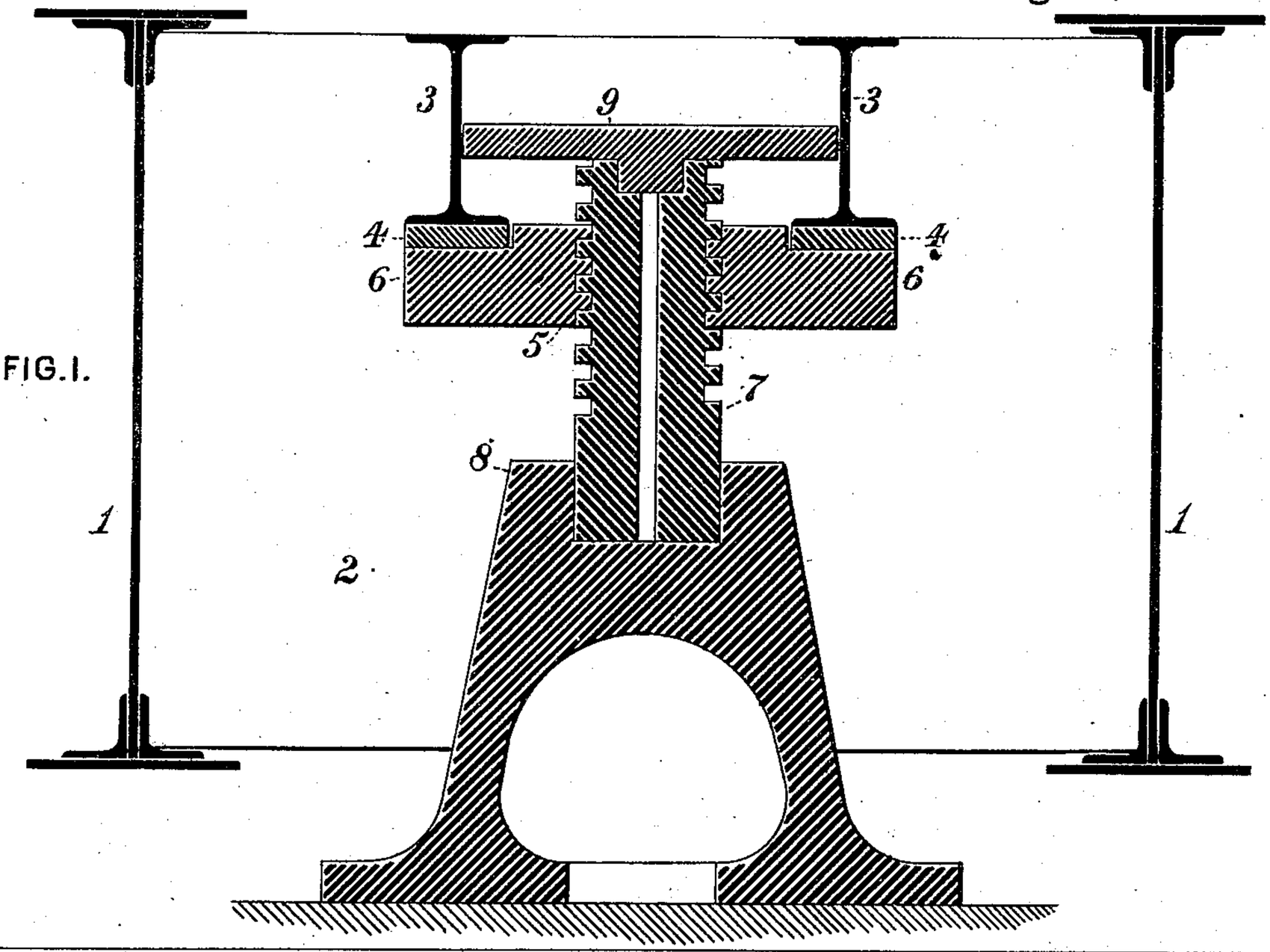
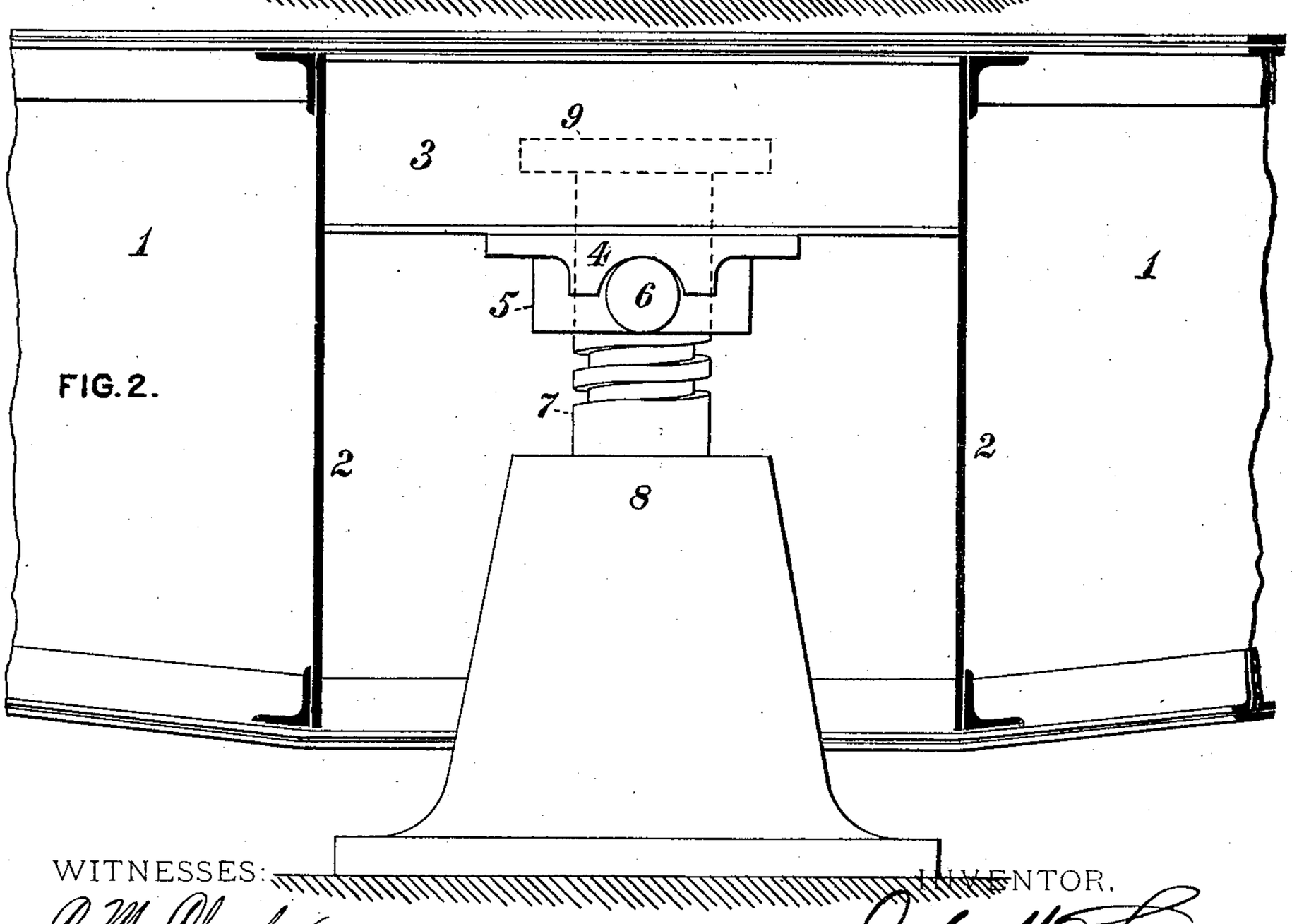


FIG. 2.



WITNESSES:

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JOHN W. SEAVER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO RITTER & CONLEY, OF SAME PLACE.

CENTER FOR TURN-TABLES AND BRIDGES.

SPECIFICATION forming part of Letters Patent No. 323,743, dated August 4, 1885.

Application filed October 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. SEAVER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Centers for Turn-Tables and Bridges, of which the following is a specification.

The object of my invention is to provide a center for turn-tables or pivot-bridges which shall present the advantages of simplicity and economy of construction, readiness and convenience of adjustment for different desired heights, capacity of permitting free longitudinal vibrating movement of the structure which it supports while insuring transverse steadiness thereof, and concentration of the weight of the structure upon a single central support in such manner as to avoid unequal distribution of load over the bearing-surfaces, and to dispense with the series of sustaining-bolts heretofore usually employed.

To this end my invention, generally stated, consists in the combination, in a turn-table or pivot-bridge, of a central pivot and a collar adjustable vertically thereon, said collar forming a support or bearing, upon which the turn-table rests with the capacity of longitudinal vibration, and on which it is fixed as against lateral movement.

The improvements claimed are hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a transverse central section through a turn-table embodying my invention, and Fig. 2 a longitudinal central section through a portion of the same, the center being shown in elevation.

In the practice of my invention the two main girders 1 1 of a turn-table or pivot-bridge are connected one to the other by two cross-girders, 2 2, which are located at right angles to the main girders, adjacent to and at equal distances from the transverse central plane of the latter, and the cross-girders 2 2 are in turn connected near their upper sides by two bearing-beams, 3 3, which extend parallel with the main girders on opposite sides of and at equal distances from the longitudinal central plane of the turn-table, each of said bearing-beams having a bearing, 4, secured to its lower side, said bearings being segmentally recessed on their lower faces concentrically with the transverse central plane of the table. An adjusting-collar, 5, provided with two diametrically-opposite journals or rocker projections, 6, which fit freely within the recesses of the bearings 4, is fitted with the capacity of vertical movement upon a central pivot, 7, the lower end of which rests within a step or bearing, 8, which is secured to a suitable foundation and about the axis of which the table rotates in operation. The collar 5 is adjustable vertically upon the pivot 7, and such adjustment may be effected either by means of a screw-thread formed upon the pivot and engaging a corresponding internal thread on the collar, as shown in the drawings, or in any other suitable manner, as by the interposition of collars or washers between the adjusting collar and step. The pivot 7 may bear directly upon the step by a plain face, as shown, or may be supported upon a series of conical rollers located in a recess on the top of the step, in order to diminish the friction of the load thereon. Axial movement of the pivot relatively to the bearing-beams and adjusting-collar is prevented by a stop-plate, 9, located between and fitting at its ends against the inner sides of the bearing-beams 3, said plate being removably connected to the pivot 7 in any manner proper to prevent rotation of the latter independently of the plate. In the instance shown a squared central projection on the bottom of the stop plate fits into a corresponding recess on the top of the pivot; but, if preferred, the pivot may pass through an opening in the stop-plate and be prevented from rotating therein by a key engaging slots in the surface of contact, or by being flattened or squared on one or more sides in correspondence with the opening through which it passes.

To effect the vertical adjustment of the turn-table or bridge the stop-plate is removed from the pivot, and a wrench or key being applied to the latter it is turned in one or the other direction while the table is held against rotation, according as it is desired to raise or lower the table, until the latter is brought to the

proper level by the longitudinal movement of the adjusting-collar 5 on the pivot 7, when the stop-plate is replaced, and the collar thereby locked in position at the height desired. It will be obvious that a corresponding result may be effected by turning the table around the pivot while the latter is held stationary. In the case where the pivot is not threaded and adjustment is made by means of washers, the turn-table is jacked or otherwise raised to the desired height, and such a number or thickness of washers inserted under the collar as may be proper to maintain it thereat.

It will be seen that my improvements are readily applicable at comparatively small expense to turn-tables or pivot-bridges of any of the ordinary constructions, and that in their operation the height of the table or bridge may be quickly and accurately adjusted to any desired level. Free longitudinal vibration is permitted by the bearings and rocker projections on which they rest without liability to lateral movement, and the entire load is transferred to and borne by a single central step or bearing.

I am aware that a central pivot provided with a screw-thread engaging a nut fixed to the center cross-beam of a turn-table so as to admit of vertical adjustment of the table relatively to the pivot was known in the art at the date of my invention, and such construction, broadly, I disclaim. My invention, however, differs therefrom in the essential particular of admitting of required longitudinal vibration of the table upon the pivot, which, so far as my knowledge and information extends, is not provided for in constructions of the character above referred to.

I claim herein as my invention and desire to secure by Letters Patent—

1. The combination, in a turn-table or pivot-bridge, of a central pivot, a collar mounted and capable of vertical adjustment thereon, journals fixed upon said collar in the transverse central plane of the main supporting-girders, and bearings connected to said girders and resting upon said journals, substantially as set forth.

2. The combination, in a turn-table or pivot-bridge, of a central pivot, a collar mounted with the capacity of vertical adjustment thereon, bearings connected to the main supporting girders and resting upon journals on the collar, and a removable stop-plate connected to the pivot and abutting against bearing-surfaces fixed to the main girders, so as to prevent rotation of the pivot independently thereof, substantially as set forth.

3. The combination, in a turn-table or pivot-bridge, of a pair of main girders, a pair of cross-girders secured thereto, a pair of bearing-bars connecting the cross-girders on opposite sides of their longitudinal central plane, bearings which are segmentally recessed on their lower sides and secured to the bearing-bars with their recesses concentric with the transverse central plane thereof, a central pivot having an external screw-thread and fitting in a stop or bearing, a collar having an internal central thread engaging the thread of the pivot, and a pair of journals fitting freely in the bearings, and a removable stop-plate connected to the pivot and fitting at its ends against the bearing-bars, substantially as set forth.

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Witnesses:
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