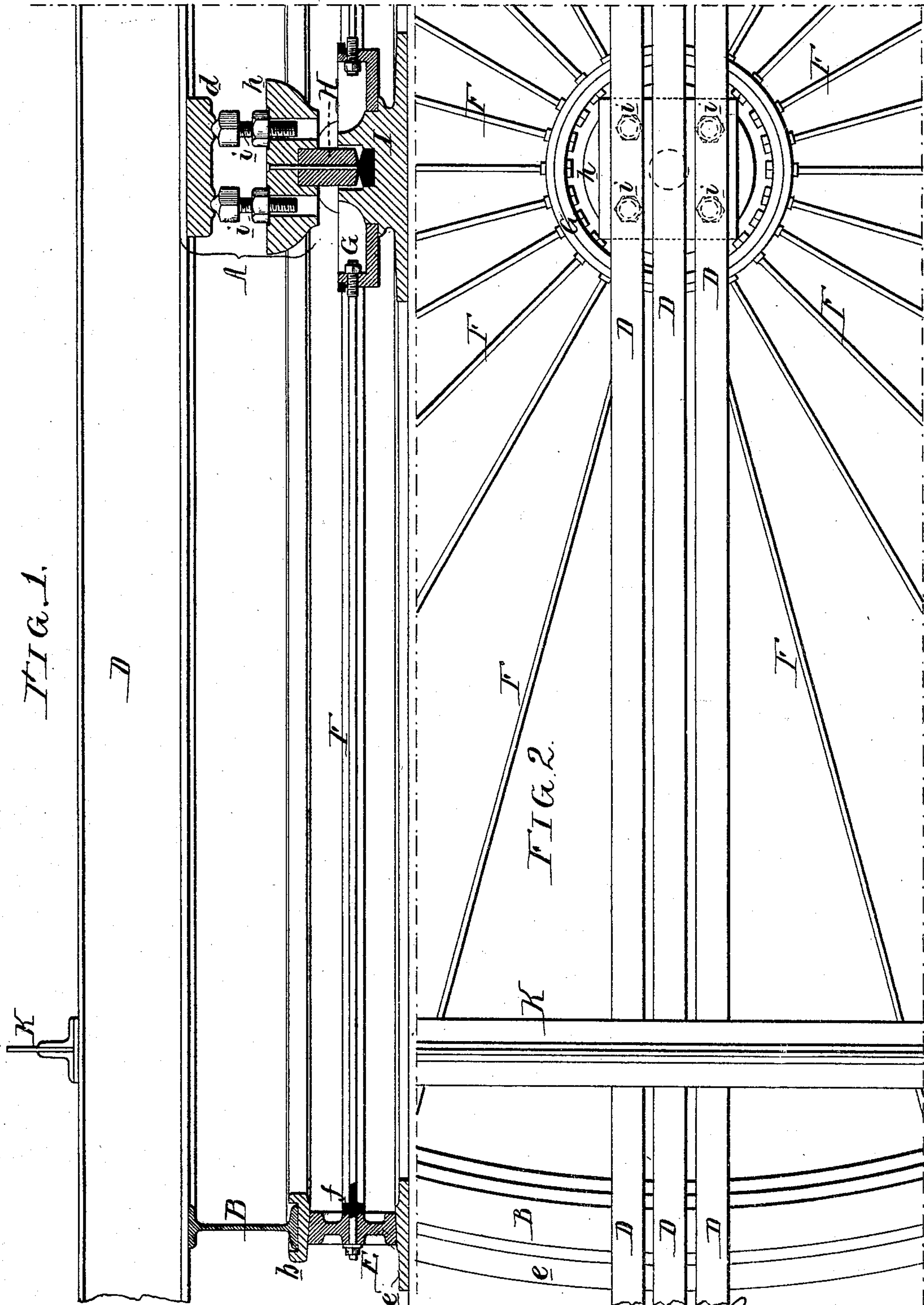


A. BONZANO.

Turn-Tables for Pivot-Bridges.

No. 146,863.

Patented Jan. 27, 1874.



Witnesses, Hubert Howson
Harry Smith

Adolphus Bonzano
by his attys.
Howson and Son

UNITED STATES PATENT OFFICE.

ADOLPHUS BONZANO, OF PHOENIXVILLE, ASSIGNOR TO CLARKE, REEVES & CO., OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TURN-TABLES FOR PIVOT-BRIDGES.

Specification forming part of Letters Patent No. **146,863**, dated January 27, 1874; application filed September 27, 1873.

To all whom it may concern:

Be it known that I, ADOLPHUS BONZANO, of Phoenixville, Chester county, Pennsylvania, have invented an Improved Turn-Table for Pivot-Bridges, of which the following is a specification:

The object of my invention is to construct an economical turn-table for pivot-bridges by combining a vertically-adjustable center or hub, A, with a non-adjustable rim, B, and transverse girders D for supporting the bridge, as shown in the vertical section, Fig. 1, and plan view, Fig. 2, of the accompanying drawing, so that the weight of the bridge may be transferred from the rim to the pivot-plate I, or from the plate to the rim, without disturbing the latter, and by the simple adjustment of the hub or center.

In turn-tables for pivot-bridges it is essential that the greater portion of the weight of the bridge should be supported by the bearing of the pivot, so that the bridge may be turned easily, the rim of the turn-table bearing lightly on the rollers E, the object of the latter being more to steady the table and its superstructure than to support its weight. By constant use, however, and by the wearing of the pivot, the weight is transferred to the rim, when it becomes necessary to retransfer it from the rim to the pivot. This I have heretofore accomplished by diagonal braces and rods, in connection with a deep and consequently heavy and expensive rim, the latter being raised or lowered by the adjustment of the said braces or rods—as, for instance, in my patent of May 21, 1872.

In my present invention the rim B consists of a comparatively shallow and light circular girder of well-known phoenix iron, the lower flange of the girder being adapted to a recess in a cast-iron ring, *b*, which rests on the rollers E, the latter being adapted to an annular track, *e*, on the foundation of the turn-table. Each roller turns, as usual, on the end of a rod, F, and all the rods are connected together near the rollers by a light ring, *f*, and at their inner ends to the rim of a disk, G, which is fitted to and arranged to turn on the fixed

pivot-plate I. The adjustable center or hub A of the turn-table consists of the plates *d* and *h*, and the four or more bolts, *i*, the head of each bolt having a rounded projection adapted to a corresponding recess in the under side of the plate *d*, and the threaded stem of each bolt being adapted to a nut fitted to a recess in the upper surface of the plate *h*, through openings, in which the stems of the bolts pass freely, all as shown in the vertical section, Fig. 1. To the lower plate *h* is fitted the steel pivot H, which is adapted to a recess in the pivot-plate I. Transverse beams D D extend across the turn-table, and are fitted to the top of the upper plate *d* of the hub or center A, and on these beams bear the lower chord K of the truss-frame of the bridge.

If too much of the weight of the bridge bears on the rims B and rollers of the turn-table, all that is necessary is to elevate the upper plate *d* of the hub by turning the bolts *i* until so much only of the weight of the bridge is supported by the rollers E as to insure the steadiness of the structure, the main weight being transferred to the pivot-bearing. If the bridge is unsteady the plate *d* must be lowered until more of the weight of the bridge bears on the rim.

It will be seen that this adjustment is accomplished without any disturbance of the rim, and, consequently, that the latter may be light and inexpensive compared with that of turn-tables in which the adjustment is accomplished through the medium of the rim by adjustable braces or rods, by dispensing with which further economy in the construction of turn-tables is insured.

I claim as my invention—

The combination of the vertically adjustable center or hub A, the transverse beams D, and rim B.

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

ADOLPHUS BONZANO.

Witnesses:

P. G. CAREY,
FRANK CAREY.