H. F., G. S. & A. SNYDER.

Turn-Table.

No. 163,033. Patented May 11, 1875.

Fig: 1.

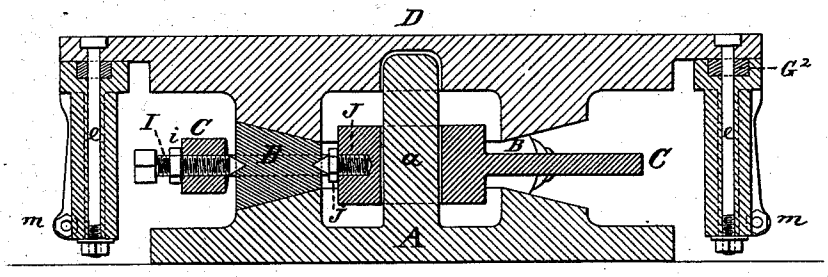
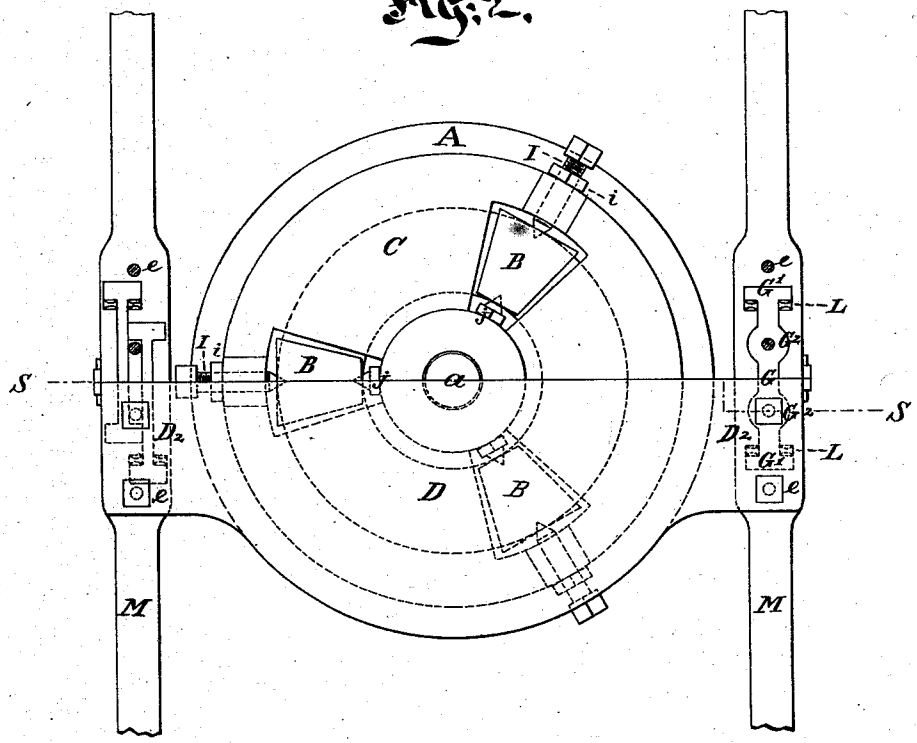


Fig: 2.



Witnesses:

E. Volkmann.

Inventors:

H. F. Snyder
G. S. Snyder
Andrew Snyder
by their attorney F. A. Lehmann

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UNITED STATES PATENT OFFICE.

HENRY F. SNYDER AND GEORGE S. SNYDER, OF WILLIAMSPORT, AND ANTES SNYDER, OF SPRINGDALE, PENNSYLVANIA.

IMPROVEMENT IN TURN-TABLES.

Specification forming part of Letters Patent No. **163,033**, dated May 11, 1875; application filed September 24, 1874.

To all whom it may concern:

Be it known that we, HENRY F. SNYDER and GEORGE S. SNYDER, of Williamsport, in the county of Lycoming, and ANTES SNYDER, of Springdale, in the county of Allegheny, and State of Pennsylvania, have invented certain Improvements in Railway Turn-Tables, of which the following is a specification:

The invention relates to means for adjusting the conical rolls on which the table is supported. It is difficult in practice to so form and apply a large number of rolls that each may be removed at will. I provide a means for adjusting them firmly, and for easily removing them at will and replacing them.

The invention further relates to the construction of the parts at and near the union of the long side beams or girders with the central plate.

Figure 1 represents a vertical section on the line *s s* in Fig. 2. Fig. 2 is a plan view, with a portion of the stout central casting or plate removed.

Referring to the drawings, B B &c., are conical rolls, mounted equidistant from each other in apertures in a turning frame, C. The latter is centered on a stout post, *a*, in the bed-casting A, and is tapped to receive center-screws I J, which match with their conical points into corresponding conical holes in the center of the ends of the respective rolls. Each screw I is tapped through a swell in the outer portion of the revolving frame C, and sets against and partly into the large end of the corresponding roll. When adjusted in the right position, it is firmly secured by a jam-nut, *i*. Each screw J is tapped into the inner portion of the frame C, and its conical portion or point sets against and partly into the small end of the corresponding roll. When adjusted in the right position it is set by tightening the jam-nut *j*.

The centering-screws I J, with their jam-nuts for fixing them firmly and for loosening and removing at will, allow the easy removal of a roll when necessary for repairs or other purposes. I first set the several rolls at a uniform distance from the center, and, after working them a little under the stout revolving plate D, carefully examine them to see if all bear equally. If a roller, B, is found to bear too small a proportion of the weight, it is adjusted a little inward toward the center post *a* by slackening both jam-nuts, turning both screw-centers J and I inward, and again tightening the jam-nuts. The reverse adjustment is made if the roller, from the indications, appears to bear too much of the weight.

The screw-center J may be formed with a short length of a prismatic form below the cone, to allow it to be worked by a wrench when the jam-nut is slackened.

A stout overhang, D^2, at each side of the central casting or plate D, is cored to receive the heads of the vertical bolts *e*, a series of which is employed exactly in the center line of each of the girders M. Each girder is made in two halves faced together, and secured against lateral displacement at the lower edge by short bolts *m*, inserted through the flanges.

Directing attention to the right-hand side, G G^1 G^2 is a stout tie of sound wrought-iron or steel. It is formed with a head, G^1, at each end, a shank or body, G, with swells G^2, and central holes therein to allow the vertical bolts *e* to pass loosely through. These ties are sunk into corresponding recesses, cored of proper size in the upper face of the girder. The proper strain is thrown thereon by means of keys L driven under the heads.

The bosses or swells G^2 are thick enough to provide the same, or a little greater cross-sectional area in the tie opposite the bolts *e* than at other points.

The advantages of this improvement lie in the importance of direct central resistance to the strains. There is no tendency to twist any part by the elastic springing under a heavy load, or from any other cause.

The bolts and ties may be made of any cross-section desired, and the thickening of the girder need be slight to perfectly accommodate them.

What we claim, and desire to secure by Letters Patent of the United States, is—

1. In combination with a turn-table, the center-screws I J, matching their conical

points into corresponding holes in the ends of the anti-friction rolls B, and secured by jam-nuts *i j*, substantially as and for the purposes herein specified.

2. A turn-table having the two parts of the girder M connected by longitudinal ties having eyes G^2, with vertical bolts *e* extending through such eyes, both sets of bolts exerting their force in the central plane of the girder, substantially as and for the purposes specified.

In testimony whereof we have hereunto set our hands this 18th day of September, 1874, in the presence of two subscribing witnesses.

HENRY F. SNYDER.
GEO. S. SNYDER.
ANTES SNYDER.

Witnesses:
WILLARD HEYLMUN,
J. D. SNYDER.