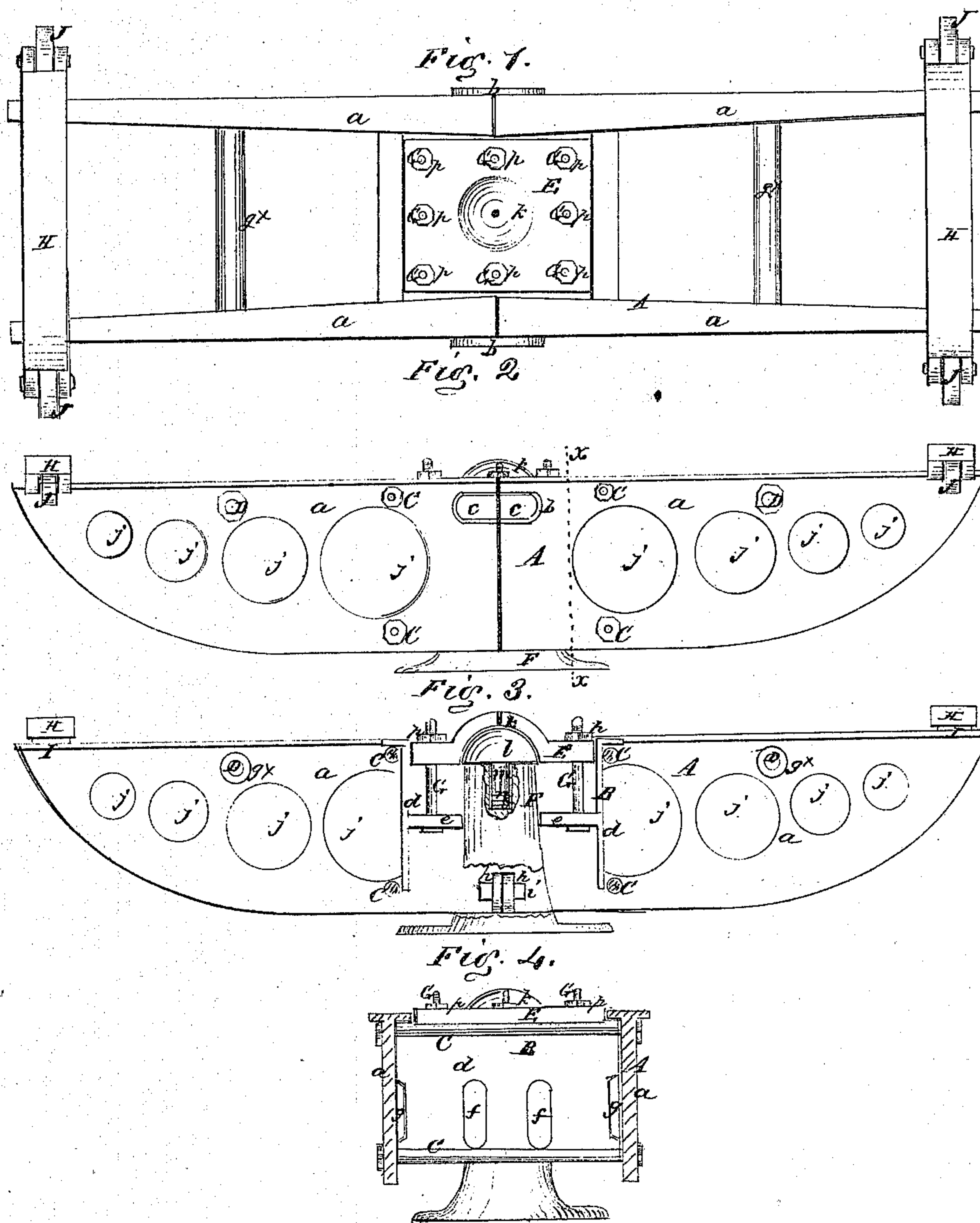


Night & Meeker,

Turn Table.

No. 104,388.

Patented June 14, 1870.



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Letters Patent No. 104,388, dated June 14, 1870.

IMPROVEMENT IN CAST-IRON TURN-TABLE FOR RAILWAYS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, ANDREW JACKSON WIGHT and WILLIAM LEWIS MEEKER, both of Newark, in the county of Essex and State of New Jersey, have invented a new and improved Cast-iron Turn-Table for Railroads; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan or top view of our invention.

Figure 2, a side view of the same.

Figure 3, a longitudinal vertical section of the same, taken through the center.

Figure 4, a transverse vertical section of the same, taken in the line *x x*, fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved cast-iron turn-table for railroads; and

It consists in a peculiarity of construction, as hereinafter fully shown and described, whereby several advantages are obtained, to wit, economy in construction and fitting up for use, strength, and durability, and facility of adjustment in case of getting out of a proper horizontal position.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

The main portion or body A of the turn-table is composed of four castings, *a a a a*, each side having two equal parts, *a a*, the inner ends of which abut against each other, and are secured in contact by wrought-iron straps *b*, which are of oval form and fitted over lugs *c*, the latter being cast with and projecting from the outer surfaces of the parts *a* of the sides of the body A.

Each part *a* has one-half of an oval lug cast with it at its inner end near its upper edge, so that the lugs of the two parts *a a*, at each side of the body A, when in contact, form a laterally projecting oval to receive the strap *b*, the latter being fitted on the former while hot, so that the straps will shrink in cooling, fit snugly, and make a secure connection.

The upper surfaces or edges of the two parts *a a* of the sides are, when thus secured in contact, in the same plane, and the lower edges are curved and form a segment of an ellipse or circle, as shown in fig. 2, the widest or deepest portion of said segments being at the inner and abutting ends of the castings.

B represents a central casting composed of two vertical plates *d d*, and a horizontal connecting-plate *e*, said parts being all cast in one piece, the vertical plates being cast with openings *f* to obtain lightness,

and also cast with recesses at their edges to receive projections *g* on the inner surfaces of the parts *a*, as shown in fig. 4.

The two sides of the body A are secured to two opposite sides of the central casting B by transverse bolts C, and through said sides bolts D pass, which extend through tubular shafts *g**, placed between the two sides. By this means the parallelism of the two sides of the turn-table is preserved.

From the inner surfaces of the two parts *a a* of the sides of the turn-table lugs *h* project, through which keys *i* pass, to retain said parts in line, or in the same plane with each other. (See fig. 3.)

The projections *g*, at the inner surfaces of the parts *a*, in consequence of fitting in recesses in the plates *d d* of the casting B, prevent any vertical movement of the parts *a*, and the latter are cast with openings *j* in order to obtain lightness.

E represents a plate of cast iron, which is fitted in the space formed by the sides of the turn-table, and the vertical plates *d d* of the central casting B.

In the center of the under surface of this plate there is a concave, *k*, which has a case-hardened surface in order to resist wear, and this concave rests upon a hardened steel semi-sphere, *l*, on the upper end of a stem, *m*, which is fitted in the upper part of a cast-iron support, F, the latter being firmly secured at the center of a bed of masonry, over which the turn-table is fitted and works.

The lower end of the stem *m* rests upon a steel ring, *n*, in the support, and the steel ring rests upon a brass or composition one, *o*, (see fig. 3.) The under surface of the semi-sphere *l* does not come in contact with the upper end of the support F. By this arrangement friction and wear and tear are avoided.

The plate E is connected by bolts G to the horizontal plate *e* of the central casting B, and by turning the nuts *p* of said bolts the turn-table may be raised or lowered bodily or adjusted as required to keep it in a proper horizontal position. This is a great advantage, as it obviates the necessity of "jacking up" the turn-table in order to accomplish such result, which is attended with considerable delay and trouble.

The parts in contact, which form the pivot on which the turn-table is revolved, are kept properly lubricated by having a hole made centrally in plate E to admit of oil passing down between the concave *k* and semi-sphere *l*, as shown in fig. 3, and a requisite quantity of oil may be put into the recess which receives the stem *m* of the semi-sphere.

In order to prevent the outer ends of the parts *a* of the sides of the turn-table from breaking under the concussions and jars occasioned by a locomotive pass-

ing on them, we have a transverse bar, H, placed thereon, said bar resting on India-rubber cushions I, which are fitted in recesses in the upper surfaces of the parts *a*, (see fig. 3.)

This bar H has a wheel, J, on each end of it, and these wheels work on an annular way or track on the bed over which the turn-table is placed and works.

The transverse bar H, resting on the cushions I, effectually breaks the jars and concussions which would inevitable occur by the passage of a locomotive and tender on the ways of the turn-table.

The weight of a locomotive is very great, from twenty-five to fifty tons, and in some instances greater. This immense weight would, unless some provision were made to obviate jars and concussions, fracture the castings *a* near their outer ends, where they are comparatively of little depth.

The turn-table may be operated or turned with the greatest facility, there being but little friction to contend with, and, in order to keep the table level, all that is required is simply to adjust or turn the nuts *p* of the bolts G. It will be seen, therefore, that but little care and attention are required to keep the table in proper working order.

We do not claim, broadly, an iron turn-table, nor constructing an iron turn-table of several parts secured together by fastenings irrespective of the par-

ticular fastenings and the mode of construction herein shown and described; but

Having thus described our invention,

What we do claim as new, and desire to secure by Letters Patent, is—

1. Connecting the parts *a a a a*, composing the sides of the turn-table, by means of the oval straps or bands *b*, of wrought-iron, fitted over lugs or projections *c*, cast on the outer surfaces of the parts *a*, in combination with the central casting B, constructed as shown, with the two vertical plates *d d*, and the horizontal plate *e*, all cast in one piece, together with the bolts C D, for securing the castings *a* to the center-piece B, and securing the former at the proper distance apart, substantially as shown and described.

2. The keys *i*, passing through lugs *h* at the inner sides of the parts *a*, in combination with the projections *g*; also, at the inner sides of the parts *a*, and fitting in recesses in the vertical plates *d d*, of the central casting B, for the purpose of retaining said parts *a* in proper position, as set forth.

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