(12) **United States Patent**
Stimpson

(10) **Patent No.: X6717**
(45) **Date of Patent: Aug. 23, 1831**

(54) **RAIL-ROAD, &C., TURN ABOUT FOR**

(76) Inventor: **James Stimpson**

James Stimpson, Baltimore Md.

Letters Patent.

The Schedule referred to in these Letters Patent making part of the same, containing a description in the words of the said James Stimpson himself of his improvement in the construction of wheels for rail road carriages.

To all whom these presents shall come; Be it known that I, James Stimpson, of the City & County of Baltimore, State of Maryland have invented a new & useful improvement in the construction or form of Road or track wheels, intended for the use of Rail Road carriages of every description whatever, and that the following is a full and exact description of the construction of the said wheels, or mode of improved by me, viz. I propose to add to the common wheel as now used a ring rim, or fellloe (or whatever it may be proper to call it) to the inside or inner periphery of the wheels, of the same thickness as the rim or periphery of the wheel at the outer edge where it joins to said wheel, more or less, extending in from the rim or inner periphery of the wheel towards the nave, one to two inches more or less, as may be desired; which ring, rim, or felloe, should be on the outer edge, and opposite side of the wheel to that of the flange which flange guides the wheels upon the track rails, and from its necessary thickness & width, makes that edge of the rim or periphery of the wheel; much the strongest, although much less exposed to blow or to being broken than the outer edge of the wheel, which runs upon the rail as the last mentioned edge of the wheel, is liable to pass over all the obstructions, or impediments that may be accidentally or designedly left upon the rails; this inner ring rim, felloe or flange, should be just flush with the outer edge or side of the rim of the wheel, its whole thickness extending in width its inside [illegible]

cast solid at the same time with the wheel. The whole object of the ring or felloe being to obtain the greatest strength possible with the least weight of metal, and I have no doubt fifteen pounds of iron thus disposed will afford as much protection to the wheel against breaking from severe percussion upon the road, as one hundred pounds equally distributed throughout the whole of the rim. What I claim as my invention or improvement, is the application of the rim ring or felloe inside the tread, or rim, or inner periphery of the wheel opposite to the flange as set forth in the above specification.

Witnesses
Geo. Wilson
William A. Stimpson

James Stimpson

533 A

(Drawing)

United States Patent **Patent No.: X6717**

James Stimpson
Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said James Stimpson himself of his improvements in the mode of turning short curves on Rail Roads for which Letters Patent were granted dated the twenty third day of August 1831. which Letters Patent being hereby cancelled on account of a defective specification . .

To all whom these presents shall come. Be it known that I James Stimpson of the city and County of Baltimore and State of Maryland have invented a new and useful improvement in the mode of turning short curves upon rail roads with rail road carriages particularly those round the corners of streets &c and that the following is a full and exact description of said invention or improvement as invented or improved by me. I propose to apply the common peripheries of the flanches of the flanch ways of the wheels for the aforesaid purpose in the following manner. Have a flat rail which however may be grooved if preferred at the commencement of the curvature and in a position to be central - ly under the flanches of the wheels upon the outer track of the circle so that no other part of the wheel which runs upon the outer circle of the track rails shall touch or bear upon the rails but the peripheries of the flanches they bearing the whole weight of the load and carriage while the opposite wheels which run upon the inner track of the circle are to be run and bear upon their treads in the usual way and their flanches run freely in a groove or channel, which ought usually to be about three inches in diameter less than the peripheries of the flanches. Were the bear - ing surfaces of the wheels which are in contact with the rails while thus turn - ing the curve connected by straight lines from every point there would thus be formed the frustrums of two cones if there be four wheels and two axles to the carriage) or if but one axle and two wheels then but one cone, which frus - trums; or the wheels representing their circumferences will of the wheels are thirty inch - es in diameter and are coupled about three feet six inches apart by one curve of about sixty feet radius of the inner track rail. The difference in diameter between the flanches and treads before stated, the tracks of the usual width and the wheels coupled

The Extended for seven years from 23rd August 1845 [illegible]

complete as that it would turn a curve of a somewhat smaller radius if the axles were not confined to the carriage in a parallel position with each other but this being generally deemed necessary the wheels run upon lines of tangents and therefore upon the outer track being as wide apart in the curve as the outer ones keep constantly endeavoring the carriage outwards and thus cause the carriage to tend to run upon a larger circle than the difference in diameter of the treads and flanches would otherwise give but the depth of the flanches and the couplings may be so varied as to turn any other radius of a circle desired. What I claim as my invention or improvement is the application of the flanches of the inside on one side of rail road carriages and of the treads of the wheels on the other side, to turn curves upon railways particularly such as turning the corners of the streets, wharves &c in cities and elsewhere operating upon the principle herein set forth

Witnesses
James H. Stimpson
Geo. G. Benniman

James Stimpson

Engd.
H.G.L.

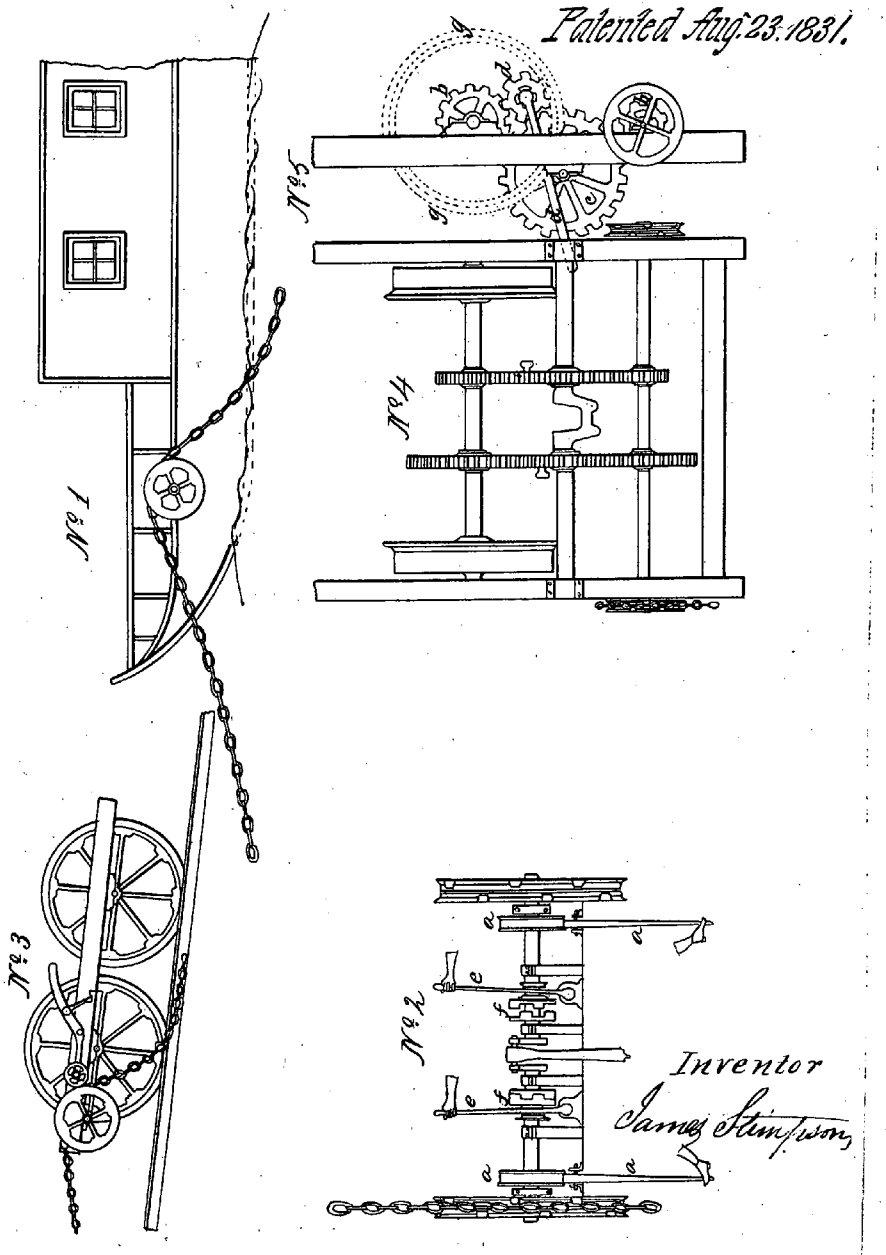
(Drawing)

6717X

J. Stimpson,

Towing Vessels

Patented Aug. 23. 1831.



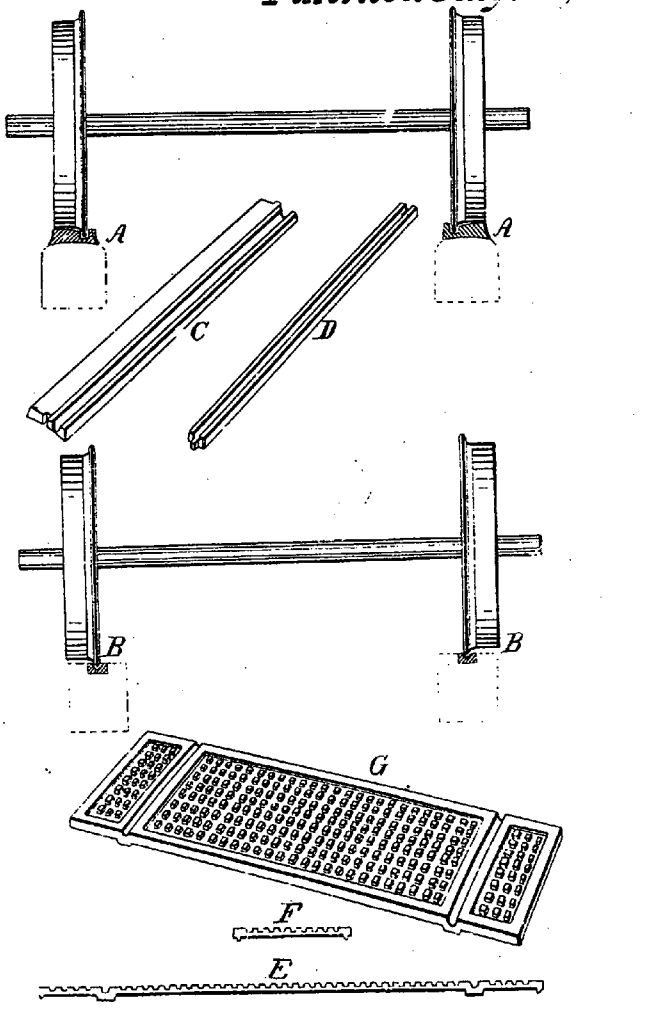
Inventor
James Stimpson

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

J. Stimpson,

R. R. Rails,

Patented Aug. 23, 1831.



United States Patent

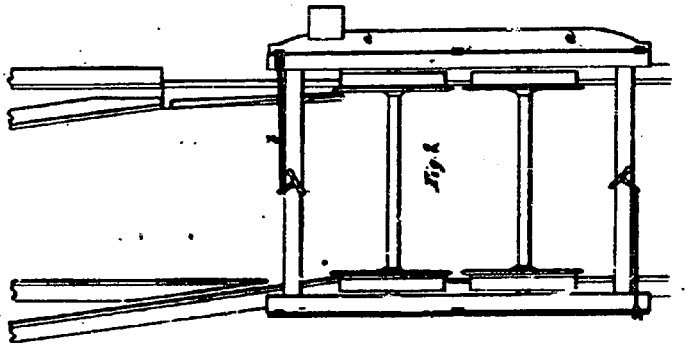
Patent No.: X6717

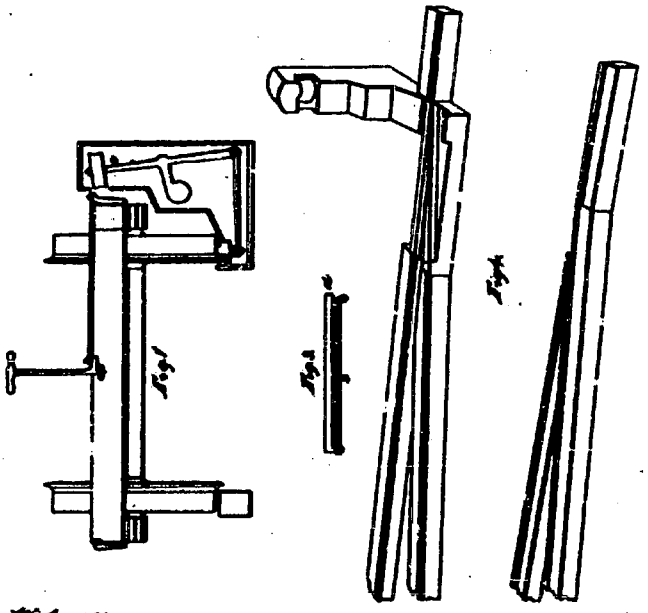
NO PRINTED SPECIFICATIONS AVAILABLE

J. Stimpson.

Railroad Switch.

Patented Aug. 23, 1831.





Witnesses.

J. H. Walsh

Inventor.

James Stimpson

THE GRAPHIC CO. PHOTO-LITH. 30 & 32 PARK PLACE, N.Y.