

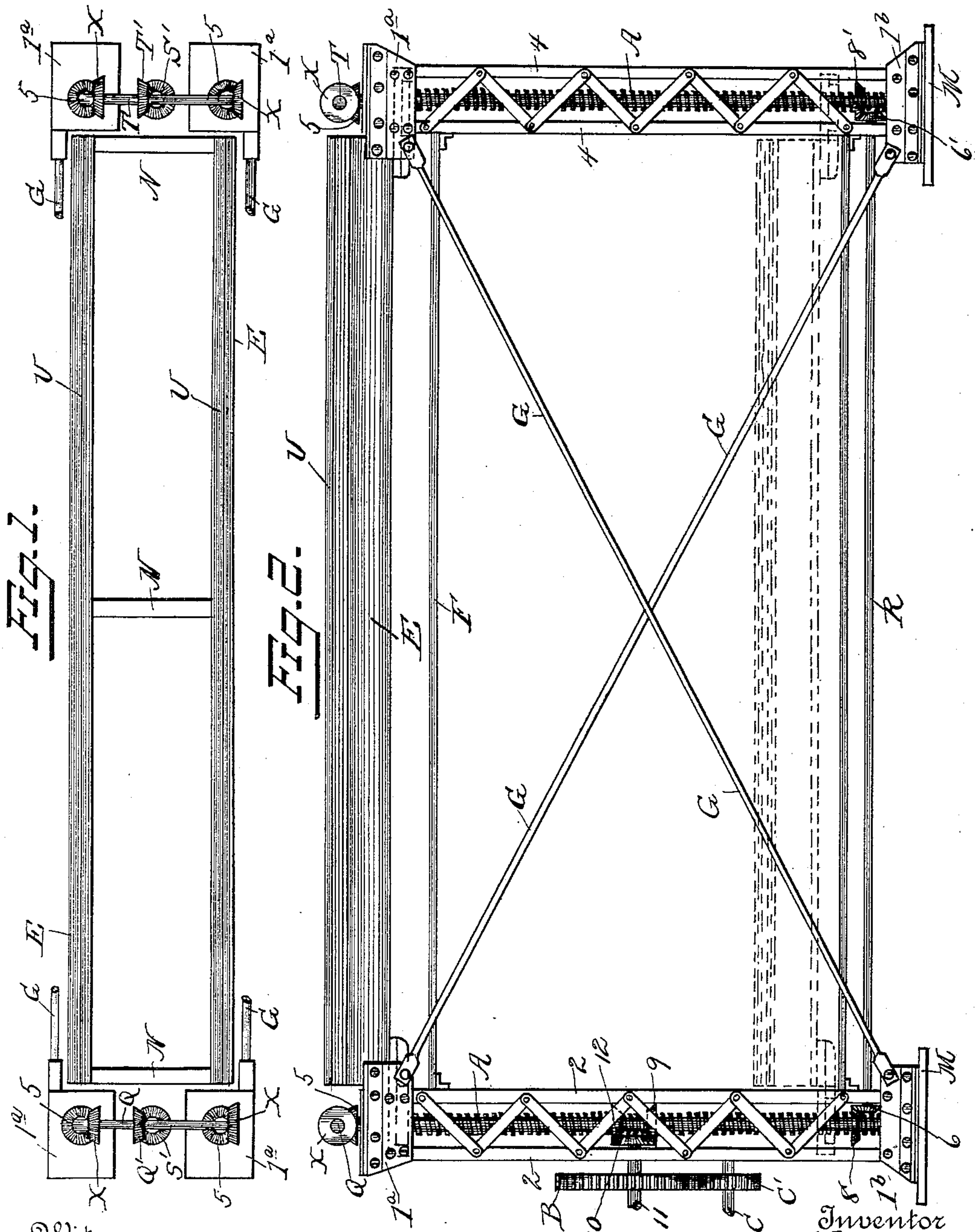
(No Model.)

2 Sheets—Sheet 1.

J. KREMSER.
LOWERING DEVICE.

No. 602,457.

Patented Apr. 19, 1898.



Witnesses.
Albert Popkins.
H. Joseph Doyle.

Inventor
John Kremsier.
By *O. D. Lewis*
Attorney

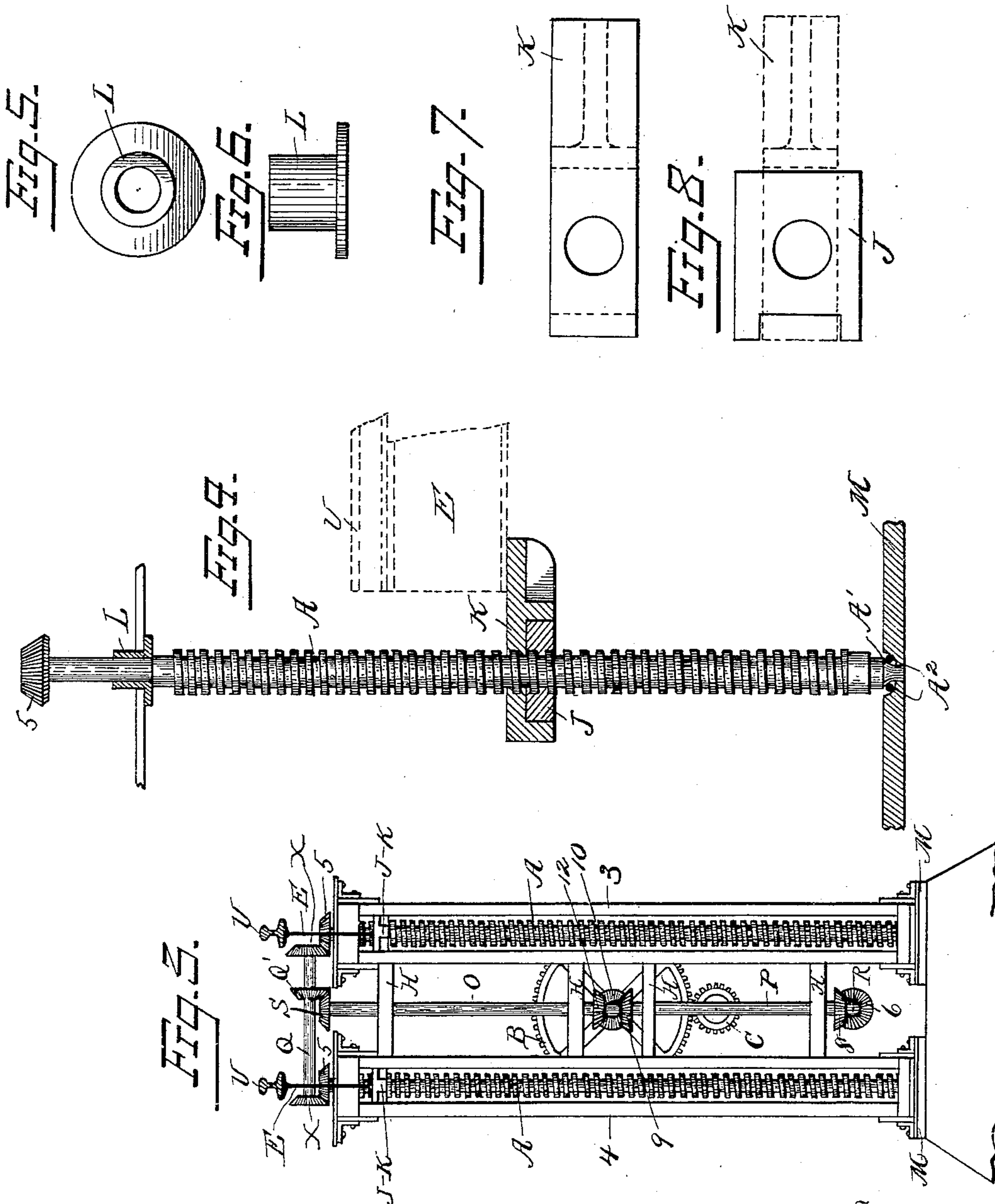
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UNITED STATES PATENT OFFICE.

JOHN KREMSER, OF DUQUESNE, PENNSYLVANIA.

LOWERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 602,457, dated April 19, 1898.

Application filed May 3, 1897. Serial No. 634,872. (No model.)

To all whom it may concern:

Be it known that I, JOHN KREMSER, a citizen of the United States of America, residing at Duquesne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Lowering Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to means for lowering the wheels and axles of locomotives after they have been disconnected from the body of the locomotive for repairs or other purposes; and it consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a lowering mechanism constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a cross-section. Fig. 4 is a detail elevation, on an enlarged scale, of one of the screws, showing the movable nut and bracket in section. Figs. 5 and 6 are detail views of the bearing for the upper ends of the screws. Figs. 7 and 8 are detail views of the movable nut and a bracket.

Referring to the said drawings, the reference-numerals 1, 2, 3, and 4 designate four columns, each consisting of vertical angle-beams connected together at the upper and lower ends by braces 1^a and 1^b, the latter resting upon the base-plates M. The columns at opposite sides are connected together by means of inclined brace-bars G, which extend from the top of one column to the base of the other column. The columns and brace-rods are located in a pit in such manner that when the rails, hereinafter described, are elevated they will be flush with the rails of the track upon which the locomotive travels.

Stepped in a recess in each of the base-plates M is a vertical screw A, having a shoulder A' at its lower end, which rests upon balls A², located in a groove in said base-plate. The upper end of said screw may also be provided with ball-bearings, if desired. At the top of the columns are secured the bushings or bearings L for the vertical screws A, as shown in Fig. 4. These screws pass through screw-nuts J, provided with brackets K, to which are secured horizontal I-beams E. Secured

to these beams E are rails U, which coincide with the locomotive-track, so that the locomotive may travel off its track upon said rails U. Secured to the upper ends of said screws are bevel-pinions 5, which mesh with corresponding pinions X on the ends of short transverse shafts Q and T, so that the motion of the screw at one end of the device will be transmitted to the screw at the opposite side. Also secured, respectively, to said shafts Q and T, about midway of the ends, are bevel-pinions Q' and T', which mesh with corresponding pinions S and S'. One of these pinions S is secured to a short vertical shaft O, located between the columns at one end of the device, provided at its lower end with a bevel-pinion 12, which meshes with a corresponding pinion 10 on a short horizontal shaft 11, provided with a cog-wheel B, which meshes with a pinion C' on a stud-shaft C. The bevel-pinion 10 meshes with a corresponding pinion 9 on a short vertical shaft P, having a bevel-pinion 8 at its lower end, which meshes with a corresponding pinion 6 of a horizontal shaft R. This shaft extends to the opposite end of the device and is provided with a bevel-pinion 6', meshing with a similar pinion 8' on the lower end of the vertical shaft P', provided at its upper end with a bevel-pinion S', meshing with the pinion T'.

The letter F designates horizontal brace-bars, and N transverse brace-bars.

The angle-bars comprising the columns are braced by diagonal brace-bars H.

The operation is as follows: The locomotive is run from its track onto the rails U U, which in normal position coincide therewith. The body of the locomotive is then blocked up, and the axles and connections are disconnected from the locomotive. By now turning the pinion C' through the medium of the cog-wheel, the bevel-pinions, and the various shafts the screws A will be rotated and the rails U U will be lowered, carrying with them the wheels, axles, and disconnected parts, whereby they may easily be gotten at for repairs or other purpose.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a device for lowering the wheels from locomotives, the combination, with the col-

umns located below the tracks on which the locomotive travels, the inclined brace-bars, the braces and the base-plates, of the vertical screws stepped in said base-plates, the shoulders, the balls, the movable nuts on said screws, the brackets, the I-beams, the rails secured thereto, the bevel-pinions secured to said screws, the shafts to which said pinions are secured, and the means for operating said

bevel-pinions and shafts to rotate the screws and lower the tracks, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN KREMSER.

Witnesses:

ALEX. A. PATTERSON,
RICHARD S. HARRISON.