

G. S. GRIGGS.

Car Truck.

No. 8,166.

Patented June 17, 1851.

Fig. 1.

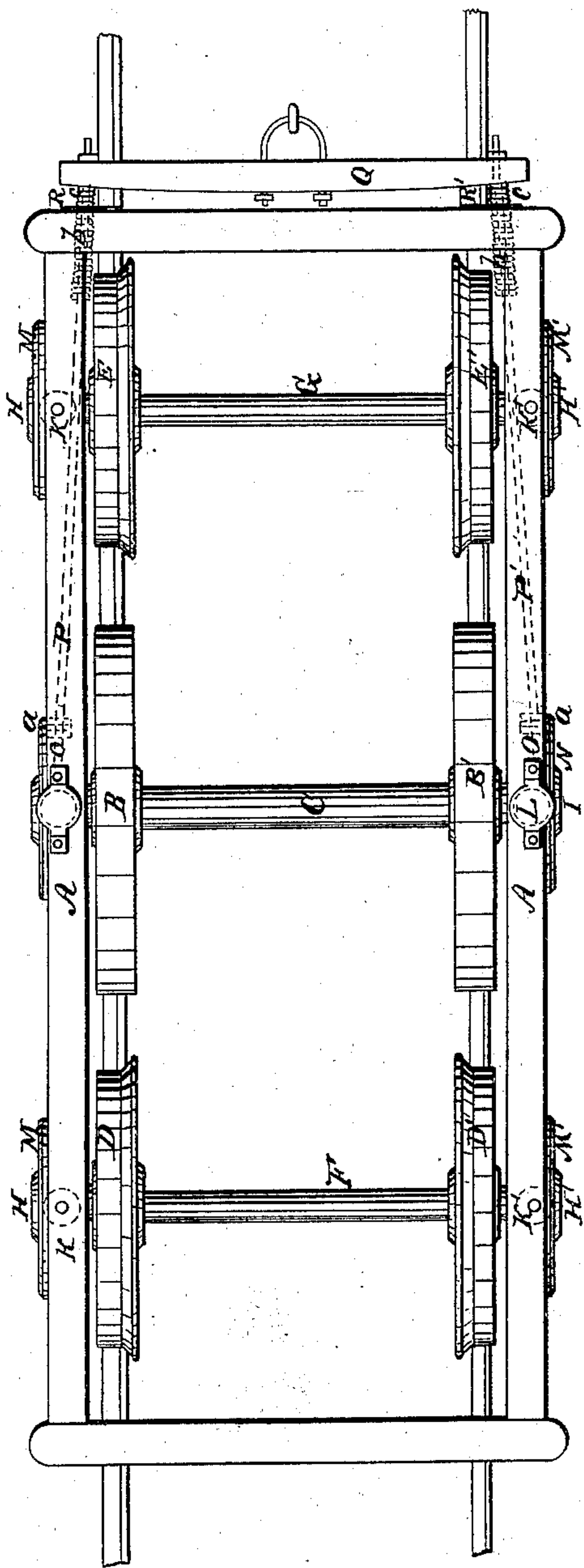
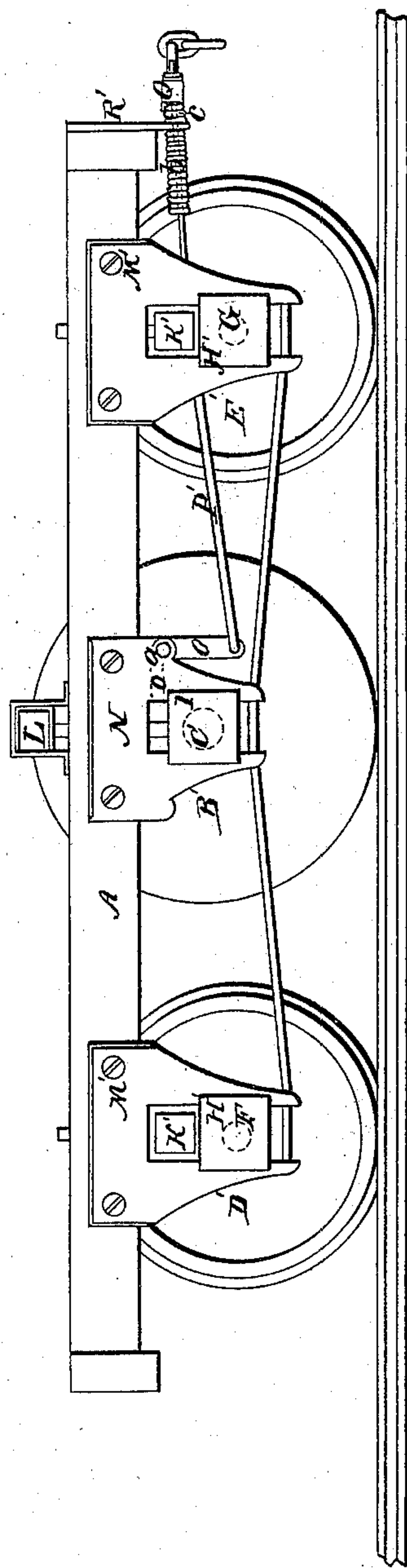


Fig. 2.



UNITED STATES PATENT OFFICE.

GEO. S. GRIGGS, OF ROXBURY, MASSACHUSETTS.

RUNNING-GEAR OF LOCOMOTIVES.

Specification of Letters Patent No. 8,166, dated June 17, 1851.

To all whom it may concern:

Be it known that I, GEORGE S. GRIGGS, of Roxbury, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Locomotive-Engines, whereby the power of traction is made to throw the whole or nearly all of the weight of the engine upon the drivers or driving-wheels, in order to increase their adhesion to the track or rails on which they may rest and move; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, denotes a top view of the frame driving and bearing wheels of a locomotive engine. Fig. 2, is a side elevation of the same.

In the said drawings A, represents the main frame, which sustains the boiler.

B, B' are the driving wheels or drivers situated or fixed on the axle C.

D D' and E E' are the bearing or flange wheels, whose axles are seen at F and G.

H, H', are the pedestals or boxes of the journals of the bearing wheels, while I placed between them is the pedestal of one of the journals of the axle of the drivers.

K L K', are the elastic springs of the pedestals H, I, H'.

M, N, M', are the housings or guides of the pedestals or boxes, all the above described parts being made, and applied together in the usual manner.

A bent lever O, made to turn on a fulcrum or pin *a*, is applied to the main frame or each housing of each pedestal I, the upper arm of the said lever being made to rest and bear upon the top of the box or pedestal.

To the lower arm of each lever, a connecting rod P or P' is jointed, which rod is made to extend forward from the traction spring or

bar Q, the cars or train on rear of the engine being attached directly to such bar or spring. The two connecting rods P, P', should, respectively, pass through, and be upheld by guide plates. R, R', extended downward from the rear end of the main frame, such rods being allowed to slide freely through their bearings on the said guide plates. And there may be springs *b*, *c*, placed on each rod, and one thereof on each side of and against the guide plate, as seen in Fig. 2, although this is not necessary in all cases.

When the engine is put in motion on the railway the back drag or resistance of the train of carriages in rear of it, will draw upon the rods P, P', and thereby turn the levers O, so as to depress the upper arms thereof, lift the weight of the frame from the bearing wheels, and throw the principal part of the weight of the main frame, and parts supported on or by it, upon the drivers, thereby increasing their power of adhesion to or pressure upon the rails, and of course enabling the engine to perform an increased duty, in comparison to what it could were it not provided with my improvement.

What I claim as my invention, is—

The combination of the bent levers (O) the connecting rods (P P') and tractile bar or spring (or other equivalent contrivance or contrivances) with the main frame (or its housings) and the boxes or pedestals of the journals of the driving wheels, and for the purpose, substantially as herein before specified.

In testimony whereof I have hereto set my signature this twenty-ninth day of March A. D. 1851.

GEORGE S. GRIGGS.

Witnesses:

R. H. EDDY,
BENJAMIN EDDY.