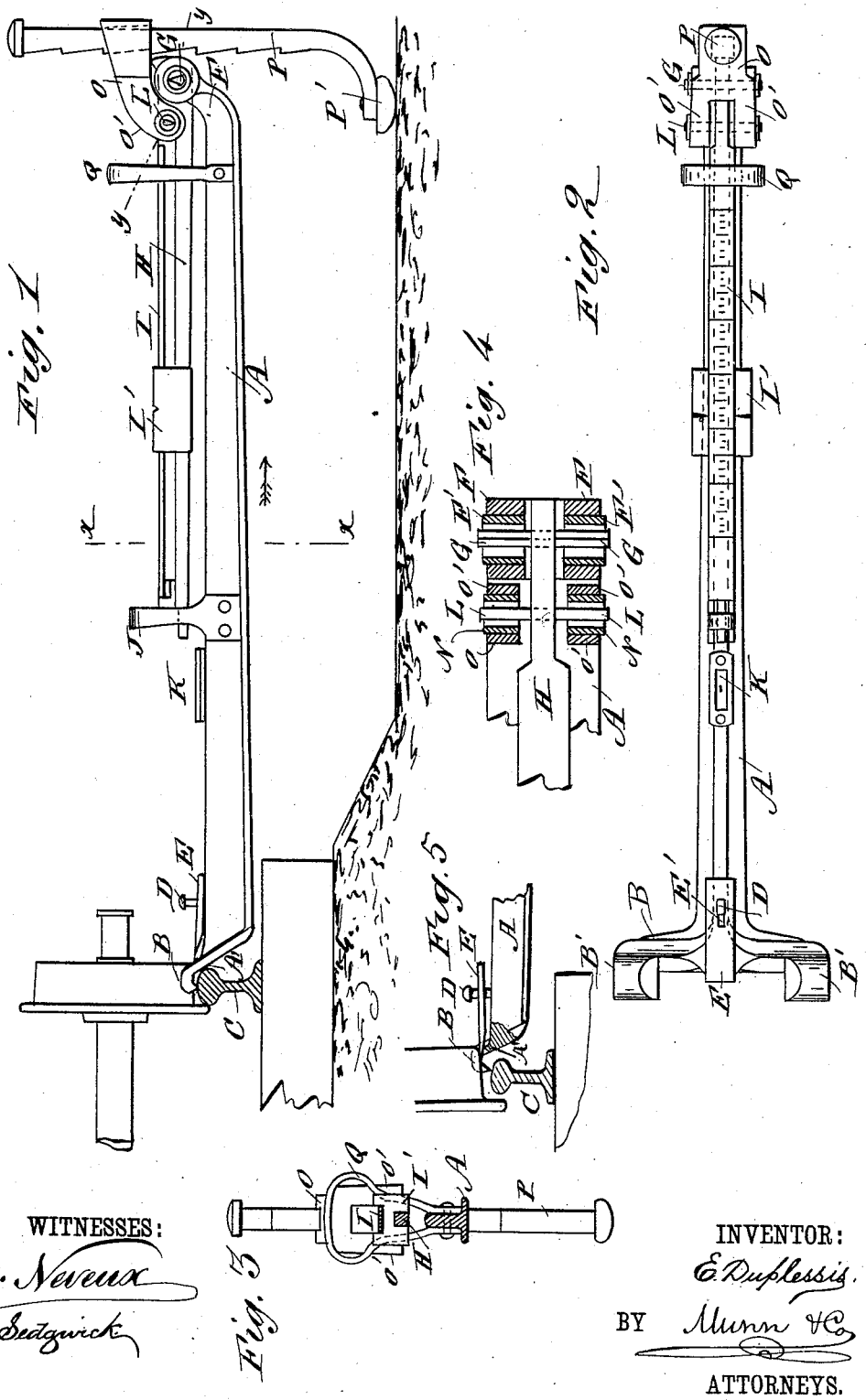
(No Model.)

E. DUPLESSIS.

WEIGHING SCALE FOR RAILWAY CARS.

No. 382,412. Patented May 8, 1888.



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WEIGHING-SCALE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 382,412, dated May 8, 1888.

Application filed April 8, 1887. Serial No. 234,144. (No model.)

To all whom it may concern:

Be it known that I, ELOUILD DUPLESSIS, of Lake Weedon, in the county of Wolfe, in the Province of Quebec, and the Dominion of Canada, have invented a new and Improved Weighing-Scale, of which the following is a full, clear, and exact description.

My invention is intended to afford means by which a railway-car can be weighed at any point on the track and with equal facility when the car is not standing level, the weight being taken, as usual, at the four points of support.

The apparatus may be thus described: A bar or lever of suitable length and section is made with a cross-head, on the ends of which are formed projections having their fronts parallel to the cross-head knife-edged and far enough apart to allow them to be introduced between the wheel-tire and the top of the rail. The outer end of this bar is turned up and forked, and in it are formed bearings for the knife-edges of the trunnions of a bar lying in the fork of and above and parallel to the first bar or lever and carrying a graduated scale and an equipoise. Upon the lower bar is fixed a level and a saddle confining the free end of the top bar. From this top bar projects some little distance in front of the pivot-knife edge trunnions having their bearings in the forked end of a swinging block, in which is formed an opening. Through this passes a ratcheted support with turned end and foot. Upon the lower bar lies loosely a wedge-shaped plate, secured in place by a pin or bolt passing up through a slot formed in it. When this is pushed forward, it will rest on a knife-edge formed on the cross-head and be at an angle to the bar.

For full comprehension of my invention reference must be had to the annexed drawings, forming part of this specification, in which—

Figure 1 is a side view of the apparatus, showing it in operation. Fig. 2 is a plan view of same. Fig. 3 is a vertical cross-section of the same on the line *x x* of Fig. 1, looking in the direction of the arrow. Fig. 4 is a sectional plan view of parts of my improvement on the line *y y* of Fig. 1; Fig. 5, a detail sectional view showing the parts in the positions they occupy when the car to be weighed is standing on tracks of different levels.

Similar letters of reference indicate like parts.

A is the bar or lever, of any suitable length and section, provided with the cross-head B, having the projections B′ B′ in the line of A, these projections having their fronts parallel with the cross-head and knife-edged.

E is a wedge-shaped plate lying loosely on the bar A, slotted, as shown at E′, and held in place by a pin, D, passing up through the slot.

A′ is a knife-edge formed on the cross-head B, on which the wedge-shaped piece E rests when pushed forward.

The other end of the lever A is forked, forming arms F, provided with bearings for the upwardly-turned knife-edge trunnions G of the beam H, which is thus pivoted to A.

I is a graduated beam secured on H, and I′ an equipoise sliding on the beam H.

K is a spirit-level secured on A, and J a saddle attached to A and confining the movement of the free end of the beam H.

L are downwardly-projecting knife-edge trunnions projecting from the beam H and having their bearings in the forked end O′ of the swinging block O. In this block O is formed an opening through which passes the ratcheted support P, with inwardly-extending foot P′.

Q is the handle by which the device is lifted.

The operation of the invention is as follows: The apparatus having been brought up at right angles to the car, the knife-edged projections B′ B′ are slipped onto the rail C on each side of the car-wheel, and between it and the track. At this time the outer end of the lever A is below the level of the rail; but it is then raised by the handle Q until shown by the level K to be perfectly horizontal, when the knife-edges of the trunnions and of the projections B′ B′ will be in a horizontal line. All that is then needed is to pass the equipoise I′ along the beam H in either direction until it is brought to a level, and the weight thereby indicated. This operation is of course repeated as often as required. When the car is on uneven ground and one side higher than the

other, the functions of the wedge begin. It is pushed forward, occupying the space between the wheel-tire and the knife-edge A′, and when the lever A is horizontal it will be at an angle to it, as shown in Fig. 5, and provide a fulcrum.

Having thus described my invention, I beg to state that what I claim is as follows:

1. In a weighing scale, the combination of a lever provided with a cross-head at its inner end, a weighing-beam pivoted to the outer end of the said lever, a swinging block pivoted to said weighing-beam, and a support carried by said swinging block, substantially as described.

2. In a weighing-scale, the combination of a lever provided at its inner end with a cross-head having forwardly-extending projections, a weighing-beam pivoted to the outer end of the lever, an apertured swinging block pivoted to the weighing-beam a short distance from the pivoted end of said beam, and a ratcheted support working in the aperture of the said block, substantially as described.

3. In a weighing-scale, the combination of the lever A, provided with a cross-head, B, having the projections B′ at its inner end and with the forked outer end, the beam H, pivoted between the forks of the said lever A, the graduated beam secured to the beam I, the equipoise I′, sliding on the beam H, the apertured block O, pivoted to the beam H, and the ratcheted support P, provided with the foot P′ and working in the aperture of the said block, substantially as herein shown and described.

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Witnesses:
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