

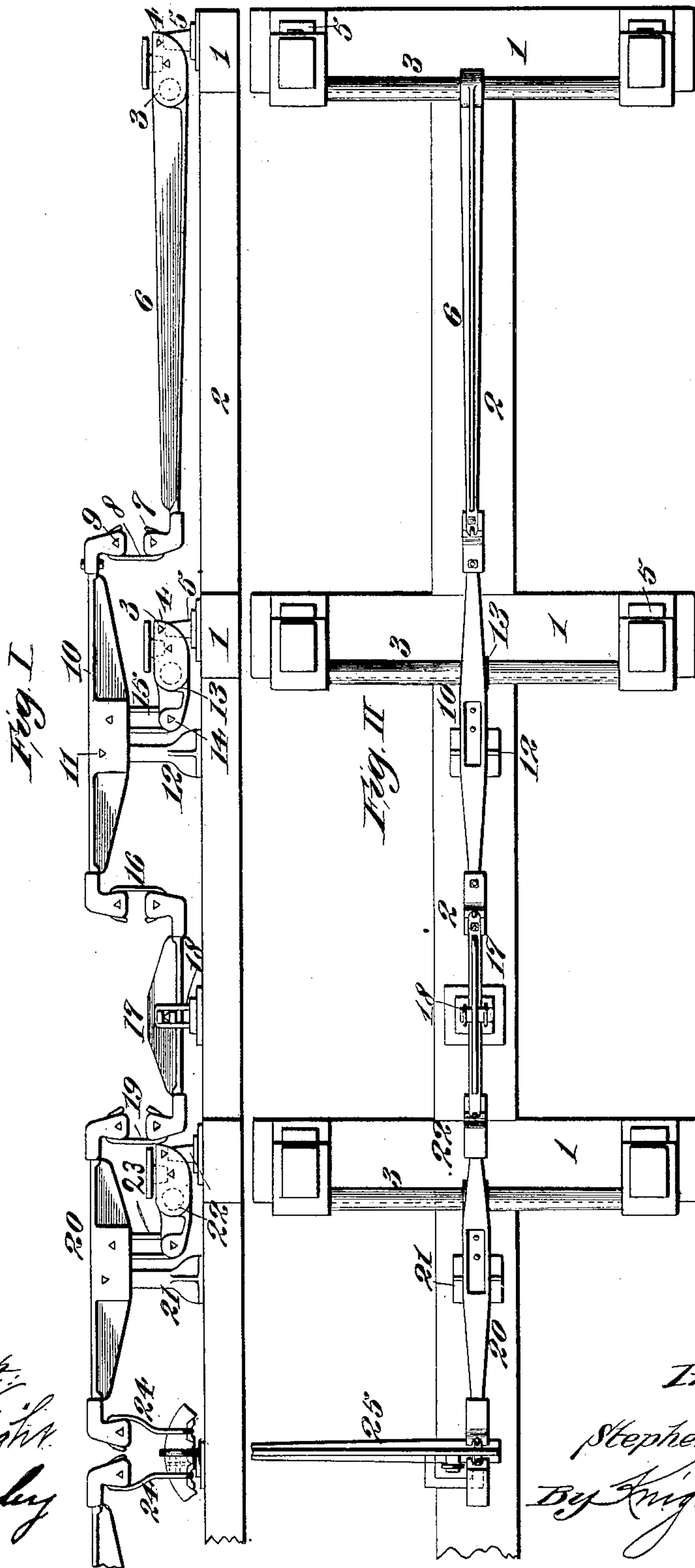
No. 636,613.

Patented Nov. 7, 1899.

S. J. AUSTIN.
PLATFORM SCALE.

(Application filed Jan. 12, 1895.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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PLATFORM-SCALE.

SPECIFICATION forming part of Letters Patent No. 636,613, dated November 7, 1899.

Application filed January 12, 1895. Serial No. 534,603. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN J. AUSTIN, a citizen of the United States, and a resident of the city of Terre Haute, in the State of Indiana, have invented a certain new and useful Improvement in Platform-Scales, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of scales intended more particularly for use in weighing railway-cars and their contents; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I illustrates a side elevation. Fig. II illustrates a top view.

Referring to the drawings, 1 represents the cross-timbers, and 2 the longitudinal timbers, on which the scale is mounted, these timbers resting on masonry in a pit under the railroad-track in the usual manner. The platform is, as is customary, supported on twist-shafts 3, mounted by knife-edge bearings 4 in the standards 5 on the cross-timbers.

It will be understood that the drawings illustrate but one end of the scale, for inasmuch as the other end is a substantial duplicate, with the parts turned in the opposite direction to face the parts shown, it has not been deemed necessary to show the complete scale. A description of the parts shown will therefore be understood to apply equally to the parts at the end not shown.

To the outer twist-shaft 3 is rigidly secured one end of a rear lever 6, and in the opposite and free end of this lever is a knife-edge 7, that is engaged by a shackle 8. The shackle 8 also connects with a knife-edge 9 in one end of the long arm of a multiplying-lever 10, mounted by a knife-edge bearing 11 in a standard 12.

The prime purpose of the multiplying-lever 10 is the provision of a lever that may be made of greater or less length of rear arm to accommodate scales requiring greater or less length of the rear section or rear lever 6. The length of the rear arm of the multiplying-lever 10 increases in the same ratio as the length of the rear lever 6.

Beneath the multiplying-lever 10 is a short

lever 13, that is rigidly secured to the twist-shaft located at this point. The free end of this lever is provided with a knife-edge 14, that is engaged by a shackle 15, forming connection with the lever 13 to the multiplying-lever 10.

The inner end of the lever 10 is connected by a shackle 16 with an evener 17, mounted in standards 18, and the inner end of the evener 17 is connected by a shackle 19 with an evener 20, mounted in standards 21.

Beneath the evener 20 is a short lever 22, similar to 13, carried on the twist-shaft 3 at this point, which arm is connected by a shackle 23 with the evener 20.

The free end of the evener 20 carries a shackle 24, that connects said evener with the cross-beam 25 of the scale, connecting with weigh-beam.

I have shown but two eveners; but it is evident that as many may be employed as may be required to suit the length of the particular scales and platform.

It will be understood that the principal feature of novelty wherein my present invention differs from previously-devised scales of this type as exemplified in my United States Letters Patent No. 372,055, of October 25, 1887, resides in the use of the short levers 13 22, &c., which afford support for the platform at points intermediate of the rear-lever supports and have weighing connection with the system of main levers, preferably through the multiplying-levers.

I claim as my invention—

1. In a platform-scale, the combination of a rear lever mounted upon a twist-shaft provided with platform-bearings, a multiplying-lever connected end to end with said rear lever, a short-arm lever mounted upon a twist-shaft provided with platform-bearings, located between the ends of the multiplying-lever, and connected thereto at an intermediate point, an evener connected end to end with the multiplying-lever, a cross-beam, and connections between said cross-beam and evener.

2. In a platform-scale the combination of a rear lever mounted on a twist-shaft provided with platform-bearings, a multiplying-lever having its long arm to the rear and connected with said rear lever, a short lever 13 mounted

on a twist-shaft located at a point between the ends of the multiplying-lever and having platform-bearings, and connected at an intermediate point to the multiplying-lever, a cross-beam and suitable connections between said multiplying-lever and the cross-beam; substantially as described.

3. In a platform-scale, the combination of a rear lever mounted on a twist-shaft provided with platform-bearings, a multiplying-lever 10 connected end to end to said rear lever, a short lever mounted upon a twist-shaft having platform-bearings and connected at an intermediate point to the multiplying-lever, an evener 20, connections between the end of said evener and the end of the multiplying-lever, a short lever mounted upon a twist-shaft having suitable platform-bearings and connected at an intermediate point to said evener, a cross-beam, and connections between said cross-beam and the evener 20.

4. In a platform-scale, the combination of a rear lever mounted upon a twist-shaft provided with suitable platform-bearings, a multiplying-lever connected end to end with said rear lever, a cross-beam suitable connections between said cross-beam and the multiplying-lever, a short lever mounted upon a twist-

shaft provided with platform-bearings, located between the ends of the multiplying-lever so as to afford support for the platform at such point, and connections between said short lever and the multiplying-lever at an intermediate point in the length of the latter; substantially as herein explained.

5. In a platform-scale, the combination of twist-shafts located at the ends and at an intermediate point of the scale, and provided respectively with platform-bearings, longitudinal rear levers on the respective end twist-shafts, a longitudinal intermediate lever suitably fulcrumed and connected at one of its ends with one of the rear levers, a cross-beam connections between said cross-beam and the other rear lever connections between said cross-beam and the other end of the intermediate lever, and a short lever mounted upon the intermediate twist-shaft and connected at its end to the intermediate lever at a point between the ends thereof, substantially as and for the purpose herein set forth.

STEPHEN J. AUSTIN.

In presence of—

STELLA B. AUSTIN,
LILLIAN H. AUSTIN.