March 27, 1928.

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C. C. REED

RACK FOOT CONNECTION

Filed July 16, 1926

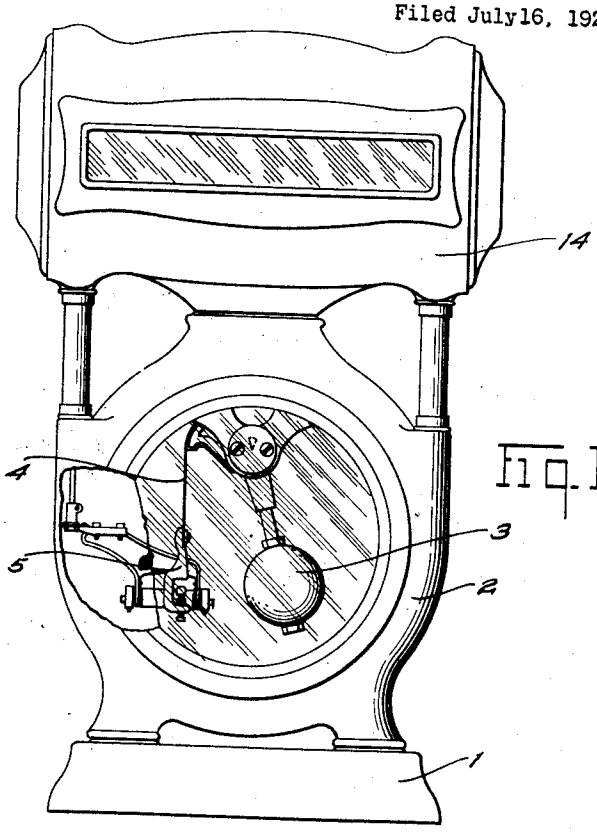

Fig. I.

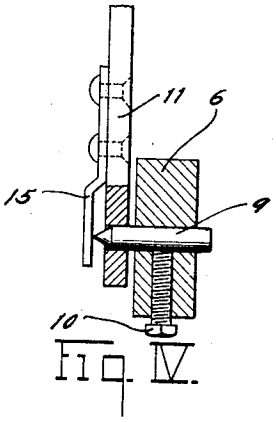

Fig. IV.

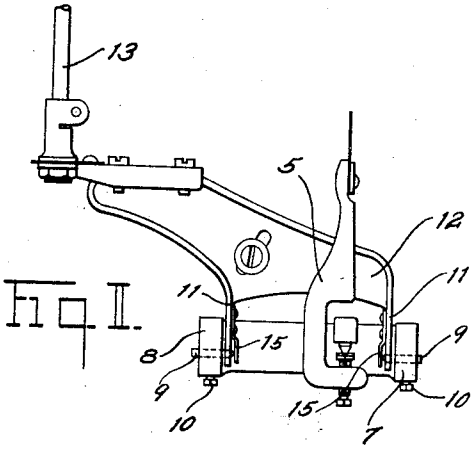

Fig. II.

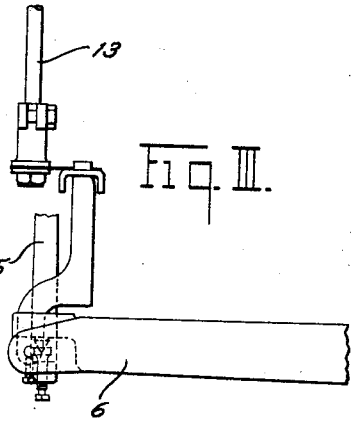

Fig. III.

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UNITED STATES PATENT OFFICE.

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RACK-FOOT CONNECTION.

Application filed July 16, 1926. Serial No. 122,856.

This invention relates to rack foot connections, and particularly to means for pivotally connecting a rack foot to a lever, and one of its principal objects is the provision of frictionless means for preventing shifting of the rack foot along its pivotal axis.

Another object is the provision of means for adjusting the rack foot along its pivotal axis.

And still another object is the provision of an anti-friction thrust bearing.

Other objects and advantages will be apparent from the following description, in which reference is had to the accompanying drawings illustrating a preferred embodiment of my invention and wherein similar reference numerals designate similar parts throughout the several views.

In the drawings:—

Figure I is an elevational view of a scale embodying my invention, parts being broken away to display the rack foot;

Figure II is an enlarged fragmentary elevation showing the end of the scale lever with the rack foot connected thereto;

Figure III is an enlarged fragmentary elevation showing the end of the lever with the rack foot connected thereto, the view being taken from the right of Figure II;

Figure IV is a further enlarged fragmentary sectional view showing a detail of the pivotal connection.

The scale to which I have shown my invention as applied is of the platform cylinder type. Mounted upon the base 1 of the scale is an upright housing 2 containing a load-counterbalancing pendulum 3 which is connected by means of a flexible metallic ribbon 4 and a hook 5 to the end 6 of the platform lever. The end of the lever is provided with furcations 7 and 8 through each of which extends a pointed pin 9, the pins being held in place by means of set screws 10. Pivoted upon the pins 9 are downwardly extending fingers 11 of a rack foot 12. The rack foot carries a rack rod 13 at the upper end of which is a rack which meshes with a pinion on an indicating shaft supporting an indicator with a casing 14 which surmounts the upright housing 2. The rack and pinion, indicator shaft and indicator may be of any specific type, and since they are well known in the art they have not been illustrated in the drawing of this application.

In order to prevent shifting of the rack foot along its pivotal axis I have provided plates 15 which are secured to the fingers 11 in position to engage the pointed ends of the pins 9. The pins 9 and the plates 15 may, if desired, be hardened and the openings in the fingers 11 through which the pins 9 pass may be of square or other polygonal shape instead of round for the purpose of reducing friction. By loosening the set screws 10 and moving one of the pins 9 out and the other one in the rack foot 12 may be adjusted along its pivotal axis. Since engagement of the pointed ends of the pins 9 with the plates 15 prevents the fingers 11 from engaging the furcations 7 of the lever, and since the engagement of the pointed ends of the pins 9 with the plates 15 is substantially without pressure, it will be seen that I have provided a frictionless device for preventing the rack foot from shifting along its pivotal axis.

The embodiment of my invention herein shown and described is to be regarded as illustrative only, and it is to be understood that the invention is susceptible to variation, modification and change within the spirit and scope of the subjoined claims.

Having described my invention, I claim:

1. In a device of the class described, in combination, a movable scale member, a rack foot, means for pivotally connecting said rack foot to said movable scale member, and substantially frictionless means for preventing shifting of said rack foot along its pivotal axis.

2. In a device of the class described, in combination, a movable scale member, a rack foot, means for pivotally connecting said rack foot to said movable scale member, and substantially frictionless means for preventing shifting of said rack foot along its pivotal axis, said means consisting of a pointed member and a member having a surface engageable with said pointed member, the point of engagement lying substantially in said pivotal axis.

3. In a device of the class described, in combination, two elements, one of which is a lever nose, the other being a rack foot, and a pointed pin secured to one of said elements, the other of said elements having an opening receiving said pin and a surface engaging the point thereof.

4. In a device of the class described, in

combination, two elements, one of which is a lever nose, the other being a rack foot, and a pair of pointed pins extending in opposite directions secured to one of said elements, the other of said elements having openings receiving said pins and surfaces engaging the points thereof.

5. In a device of the class described, in combination, a bifurcated lever nose, pointed pins secured to the furcations thereof and extending toward each other, a rack foot having a pair of fingers with openings receiving said pins, and plates secured to said fingers and engaging said pins.

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