F. FAIRBANKS.

Check-Rod for Platform-Scales.

No. 211,392. Patented Jan. 14, 1879.

*Fig. 1.*

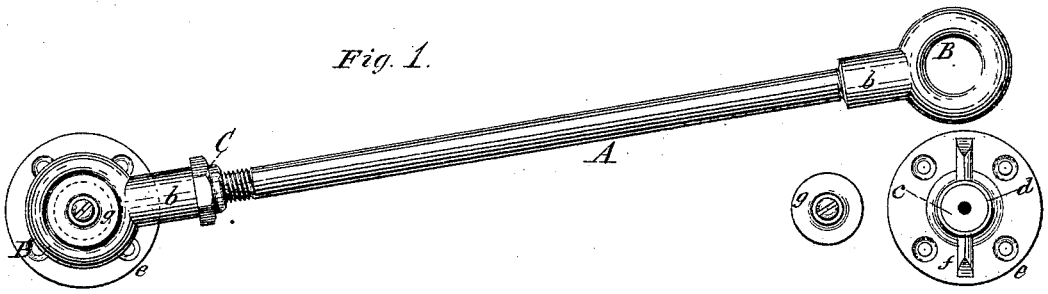
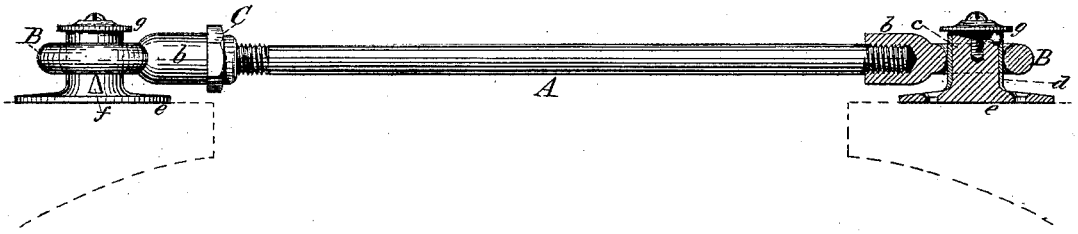



*Fig. 2.*



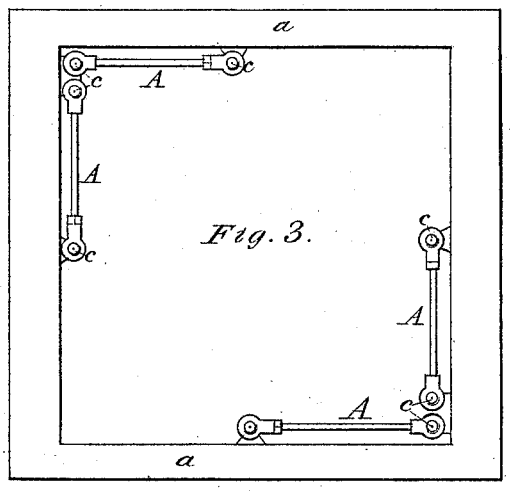




*Fig. 3.*

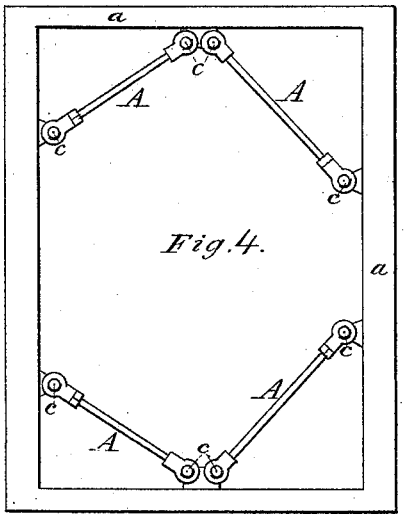



*Fig. 4.*

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# UNITED STATES PATENT OFFICE.

FRANKLIN FAIRBANKS, OF ST. JOHNSBURY, VERMONT, ASSIGNOR TO E. & T. FAIRBANKS & CO., OF SAME PLACE.

## IMPROVEMENT IN CHECK-RODS FOR PLATFORM-SCALES.

Specification forming part of Letters Patent No. 211,392, dated January 14, 1879; application filed November 16, 1878.

*To all whom it may concern:*

Be it known that I, FRANKLIN FAIRBANKS, of St. Johnsbury, Caledonia county, State of Vermont, (assignor to E. & T. Fairbanks & Co., of same place,) have invented an Improved Check-Rod for Platform-Scales, of which the following is a specification:

My invention applies to that part of platform-scales commonly termed "check-rods" or "check-chains," which usually consist of a rigid rod with an eye at each end, a number of which rods are arranged horizontally beneath the platform, with one of their ends jointed to the platform and the other to the fixed casing, for the purpose of checking undue oscillations of the platform and retaining it in proper position over the lever mechanism.

My invention lies in an improved construction of the eyes at the ends of the rod, by which the eyes are rendered incapable of rusting on their seats, and are also rendered movable or adjustable with respect to the body of the rod, which construction imparts greater durability and accuracy to the scale, and enables the rods to be lengthened or shortened to better fit them in position, as hereinafter set forth.

In the drawings annexed, Figure 1 is a plan view of the improved check-rod, one end being removed from the knob or "teat" with which it engages, and which is supposed to be secured to either the platform or the casing, as seen in Figs. 3 and 4. Fig. 2 is a longitudinal elevation, (shown partly in section;) and Figs. 3 and 4 illustrate the usual relative arrangement of the check-rods in ordinary platform-scales.

In Figs. 3 and 4, *a a* indicate the marginal frame of the platform, and A A the check-rods, which are usually arranged, as shown, in a series, either diagonally of or parallel with the sides of the platform, and at the corners thereof. The eyes at each end of the rods engage with short pins or teats *c* on stands or brackets, one of which is secured to the platform and the other to the fixed casing of the platform, as is well known to scale-makers, and will be understood from the drawing.

Heretofore it has been common to construct these check-rods wholly of iron, with the eyes on the ends of the rod solid and homogeneous with the body of the rod. In this case difficulty is often experienced in fitting the rods in the scales, as the teats for the eyes have to be placed in exact position, and even then, owing to the fixed length of the rod, it is not always easy to obtain a fit which, while being sufficiently free to allow an easy movement to the platform, will yet not be so loose as to allow too much play thereto. Moreover, the eyes being formed of iron and resting on an iron seat, the rusting of the eye often occurs to such an extent as to cause it to become fixed or adhered to the seat, and thus obstruct the free movement of the platform and impair the accuracy of the scale. This commonly occurs where the scales are exposed to the attacks of saline moisture, such as in fish-stores, pork and meat packing establishments, salt-stores, warehouses, and docks—uses in which the scales are extensively employed.

Now, according to my invention, I construct the body of the body of the rod A, as shown best in Figs. 1 and 2, of iron, as usual, preferably of rod-iron, which secures greater strength with less metal, besides being cheap; but the eyes B B at each end of the rod are formed separate from the body A, and of a metal not subject to rust, such as good brass, which is preferably employed, and these eyes, which are formed with short shanks *b*, are firmly attached on each end of the rod, as shown.

The brass eyes may be cast or otherwise permanently fixed on the ends of the rods; but I prefer to connect them therewith by a movable or adjustable connection. Each end of the rod is therefore preferably threaded with a screw-thread which is extended farther on one end than on the other, as shown, and the shanks of the eyes are correspondingly threaded as nuts to screw upon the ends of the rods, as illustrated. One of the eyes is preferably screwed up the full distance on the short threaded end of the rod, as shown, and may remain permanently in that position, while the eye on the long threaded end of the rod is made adjustable, so that it may be

screwed on or off more or less, to increase or decrease the practical length of the rod, as will be understood.

A check or jam nut, C, is screwed upon the rod back of the adjustable eye, and is capable of a certain play back and forth on the threaded part, so that by screwing this nut tightly up against the shank of the eye, after the eye is adjusted to the desired position, it then becomes fixed in this position, and the rod thus permanently retained at the desired length, which may, however, be again adjusted by releasing the nut and turning the eye whenever required, as will be understood.

The teats or knobs *c c*, over which the eyes of the rod fit, may be formed wholly of cast-iron, as usual, which does not rust as readily as wrought-iron; but in some cases I prefer to form the knob with a brass "skin," *d*, as shown in Figs. 1 and 2, preferably cast thereon, which, in connection with the brass eye, completely prevents rusting. The knobs *c* project, as usual, from a circular base, *e*, secured to the platform-frame or to the casing, and on which a knife-edge rib or bearing, *f*, is formed, on which the eye rests, while the top of the knob is fitted with a removable cap or washer, *g*, by which the eyes of the rod are held in place.

By this adjustable and non-rusting construction of the check-rods a material improvement is made in the mechanism of the scale at but an insignificant increase in cost, by which a better adjustment of the platform is obtained and greater accuracy and durability imparted to the scales, and which specially fits it for those uses above designated where rusting influences exist, for which experience has proved this construction to be almost essential.

What I claim is—

1. A check-rod for platform-scales, formed of the combination, with the iron body-rod A, of the non-rusting brass eyes B B, fixed on each end thereof, substantially as shown and described.

2. A check-rod for platform-scales, formed of the body-rod A, threaded on its ends, in combination with the movable and adjustable eyes B B, formed with projecting threaded shanks *b*, which are adapted to screw upon the ends of the rods, and be adjusted relatively and fixed in position thereon, substantially as herein shown and described.

3. In a check-rod for platform-scales, the combination, with the body-rod A, formed with screw-threaded end or ends, of the movable and adjustable eye or eyes B, threaded as nuts to work upon the ends of the rod, and the check-nut C, adapted to retain the adjustable eye in fixed position, substantially as herein shown and described.

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Witnesses:
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