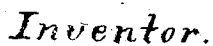


No. 123,564.

Patented Feb. 13, 1872.



Witnesses.

Letth J. May
J. D. Wood

James B. Hendricks

UNITED STATES PATENT OFFICE.

JAMES B. HENDRICKS, OF CLAYTON, ILLINOIS, ASSIGNOR OF ONE-HALF
HIS RIGHT TO JOSEPH BRYSON, OF SAME PLACE.

IMPROVEMENT IN BALANCES.

Specification forming part of Letters Patent No. 123,564, dated February 13, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, JAMES B. HENDRICKS, of Clayton, in the county of Adams and State of Illinois, have invented certain Improvements in Adjustable Bearings for Platform-Scales, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of one of the side shafts or bars and lever leading to the scale-beam, having my improved adjustable bearings attached. Fig. 2 is a sectional view of the adjustable bearing.

My invention relates to improvements in the bearings of platform weighing-scales—more particularly to that class of scales for improvements in which Letters Patent were granted to George W. Jackson November 19, 1867, and whereby the bearings are made adjustable both laterally and vertically without requiring the removal of any part of the bearing-plates. The invention consists in providing suitable means for securing the knife-edges on which the pivot-arms of the platform rest in a suitable slot so formed in the bearing-plates as that by the operation of screws they can be raised or lowered or moved to or from the platform a sufficient distance for adjustment, to compensate for expansion, contraction, and wear by friction of the metals, or shrinking, swelling, or sagging of the timbers consequent on change of weather, and wear of parts to which all such scales are more or less liable.

In the accompanying drawing, A represents a square shaft suspended along one end of the scales. B is a lever leading to the scale-beam rod. It is secured to the shaft A near its center and braced by rods *b b'*. C C are the stirrup-links, by which the shaft A is suspended to the frame. They are pivoted on knife-edges *e*, which project from and form part of the bearing-plates D. C' is a similar stirrup pivoted in the same manner to a knife-edged plate secured to the end of the lever B for the purpose of connecting the lever with the scale-beam rod. The bearing-plates D are secured one to each end of the shaft A, which passes through square slots formed in the bearing-

plates for its reception. The bearing-plates are also provided with vertical slots *d* for the reception of the adjustable knife-edges or knife-edged bearings E, the slots being wider laterally than the bearings, as shown by the space *e*, Fig. 2, so as to permit of the latter being adjusted to or from the platform as required. The bearings E are formed with shoulders *f*, the under surfaces of which are made flat to correspond with the flat upper surfaces of the bearing-plates, on which they are confined between the raised flange or guide-ways *g*. F is a bolt, the upper end of which is centrally secured in the bearing and from the bottom of which it projects down through and beyond the under side of the bearing-plate D. The lower end of this bolt F is cut with a screw-thread and provided with a nut, *h*, and plate *i*. G is a hollow screw or mandrel, of the same diameter as the slot *d*, into which it is screwed from the under side of the plate D, which latter is cut with a screw-thread for its reception. The diameter of the slot or bore of this mandrel G is greater than the circumference of the bolt F, as plainly seen by Fig. 2 of the drawing, the difference corresponding with the width of the space *e* between the bearing E and plate D, so as to permit of the lateral adjustment before described. *i'* is a plate interposed between the under side of the bearing and the hollow screw G.

The adjustment of the bearings is effected in the following manner: When it is desired to move the knife-edge to or from the platform, the nut *h* is unscrewed from the bolt F, and the bearing E can then be moved in the guide-ways *g* to or from the stirrup-links C the required distance and the nut *h* tightened up again to secure the bearing in position. When it is desired to raise the knife-edge the nut *h* is first unscrewed, and then the hollow screw or mandrel G is screwed up until the bearing E is elevated the required distance, when the nut *h* is again tightened up and the bearing secured in its new position.

From this arrangement of the bearings it must be obvious that the platform resting on these knife-edges can readily be adjusted when, through the effect of variable weather

or ordinary wear and tear, the scale is found to operate imperfectly, and that the adjustment can be accomplished without requiring to remove any part of the bearings.

What I claim as my invention is—

The combination of bearing E, bolt F, and hollow screw B with bearing-plate D, stirrup

C, and shaft A, substantially as and for the purpose specified.

JAMES B. HENDRICKS.

Witnesses:

S. J. MOREY,

J. D. WOOD.