(No Model.)

J. S. REDLINE.

PIVOT SCALE.

No. 334,051. Patented Jan. 12, 1886.

Fig. 1.

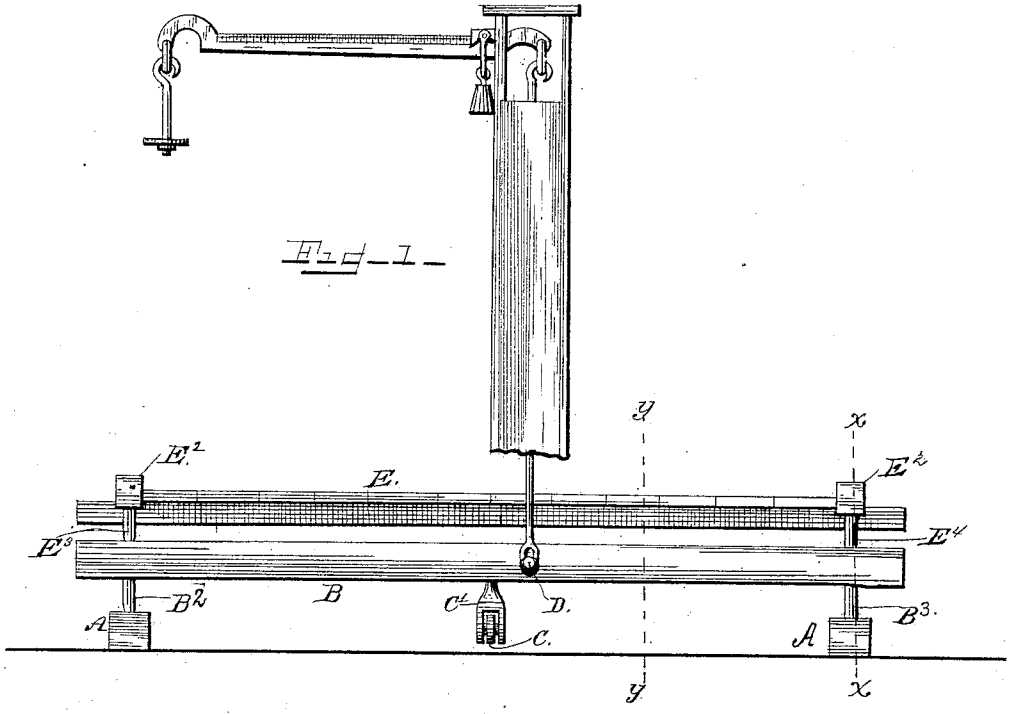


Fig. 2.

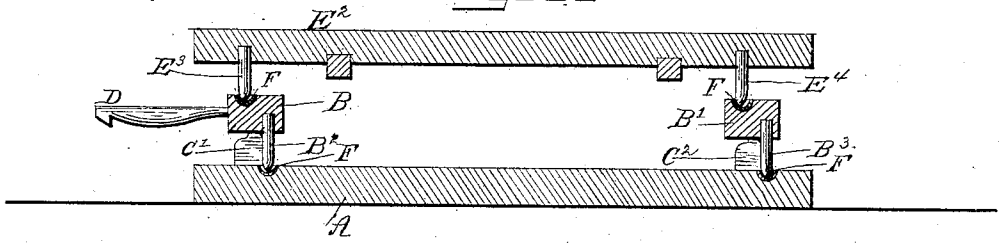
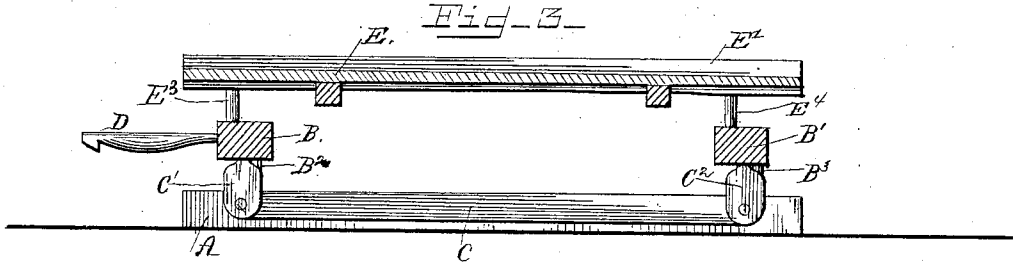


Fig. 3.



WITNESSES
R. W. Bishop.
G. P. Kramer.

Joseph S. Redline
INVENTOR
By R. S. & A. P. Lacey
Attorneys

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH S. REDLINE, OF DERRS, PENNSYLVANIA.

PIVOT-SCALE.

SPECIFICATION forming part of Letters Patent No. 334,051, dated January 12, 1886.

Application filed August 15, 1885. Serial No. 174,490. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH S. REDLINE, a citizen of the United States, residing at Derrs, in the county of Columbia and State of Pennsylvania, have invented certain new and useful Improvements in Pivot-Scales; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in scales, and aims to simplify the construction and operation of platform-scales.

To that end it consists in the novel combination of the several parts hereinafter fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is an end view of my improved scales; and Figs. 2 and 3 are sectional views on the lines *x x* and *y y*, respectively, of Fig. 1.

A A are the main supporting-beams, which are placed a proper distance apart on the surface of the ground or below the same, as may be desired.

B B′ are two cross-beams, which are supported upon the main beams A A by pivot-pins B^2 B^3, resting in metallic bearing-cups suitably secured in the top side of the said beams A A. I provide four of these pivot-pins, securing two in each of the beams B B′, one near each end. The pivot-pins B^2 B^3 are placed near the rear edges of the beams B B′—*i. e.*, to one side of the longitudinal center of the beams farthest from the point of connection between the platform and the scale-beam—as shown, for the purpose hereinafter set forth. I connect the two beams B B′, so as to secure perfect concert of action between them, by a flat rod or brace, C, which is hung from said beams by the bifurcated hangers C′ C^2. The brace C is connected to the hangers C′ C^2 at its opposite ends, being pivoted within the bifurcations of the said hangers. This brace or rod C also serves to keep the platform level when the scale is not in use, as will be more particularly referred to hereinafter.

D is a hook secured in the front side of the cross-beam B, by which the scales are connected to the ordinary scale-beam in the usual manner. By the front side is meant that side of the beam farthest from the pivot-pins, in contradistinction to the rear edge of the side which is nearest to the said pins.

E is the scale-platform, which consists of a series of bars or boards placed together and secured to cross-beams and end rails in the usual manner. E′ E^2 are the end rails, which are provided with pivot-pins E^3 E^4, by means of which the platform is supported upon the beams B B′. The pivot-pins E^3 E^4 rest in metallic cups F, suitably secured on the upper face of the beams B B′, near the front edges of the same. The pivot-pins E^3 E^4 are four in number, and are arranged to rest upon the cross-beams directly forward of the pivot-pins B^2 B^3.

By the construction described it will be seen when any article is placed on the platform its weight will cause the platform to tilt forward or in the direction of the hook D, by reason of the peculiar arrangement of the pivot-pins shown and described. This tilting forward of the platform will carry the hook D downward, thereby actuating the scale-beam. The bob-weight can then be adjusted in the usual manner until an equilibrium is established, when the weight of the article on the platform will be indicated. It will be noticed that the pivot-pins E^3 E^4 being arranged above and nearer the front side of the beams B B′ than the pivot-pins B^2 B^3 the motion of the platform will invariably be downward and forward, as above described, and the perfect working of the scale will be assured. Were the pivot-pins arranged in the same vertical line, the platform would tilt backward as often and as readily as it would tilt forward. Were the upper pivot-pins in a plane between the rear edge of the beams B B′ and the lower pivot-pins, the hook D and the scale-beam with their connections would have to be moved to the other end of the platform in order to provide a working apparatus, as will be understood.

It will be noticed from Figs. 3 and 4 that the hangers C′ C^2, which carry the brace C, are hung about midway the two edges of the cross-beams, to which they are secured. This arrangement serves to prevent the platforms tilting forward when not in use, as the weight

of the brace will be sufficient to resist the tendency of the platform to so tilt. It will readily be appreciated that the bar or brace C connects the cross-beams in such a manner that the said cross-beams will always tilt together, and thereby prevent any unevenness in the working of the scales.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the main beams having metallic cups set therein, cross-beams provided with coincident projections depending from their lower side and resting in said cups, a platform having depending projections spaced at a distance apart equal to the distance between the lower cups and bearing on the upper side of the cross-beams to one side of their supports, as and for the purposes set forth.

2. The combination, with the main supporting-beams, of the cross-beams provided with pivot-pins which rest upon the main beams, and the platform provided with pivot-pins resting upon the cross-beams, substantially as shown and described.

3. The hereinbefore-described platform-scales, comprising the main beams, the cross-beams provided with pivot-pins which rest upon the main beams, one of said cross-beams being provided with a hook, a scale-beam connected with said hook, the brace connecting the two cross-beams, hangers depending therefrom and pivotally attached to the opposite ends of the brace, and the platform provided with pivot-pins resting upon the cross-beams, all arranged and operating substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH S. REDLINE.

Witnesses:

JOHN L. WOODS,

ALVIN D. CREVELING.