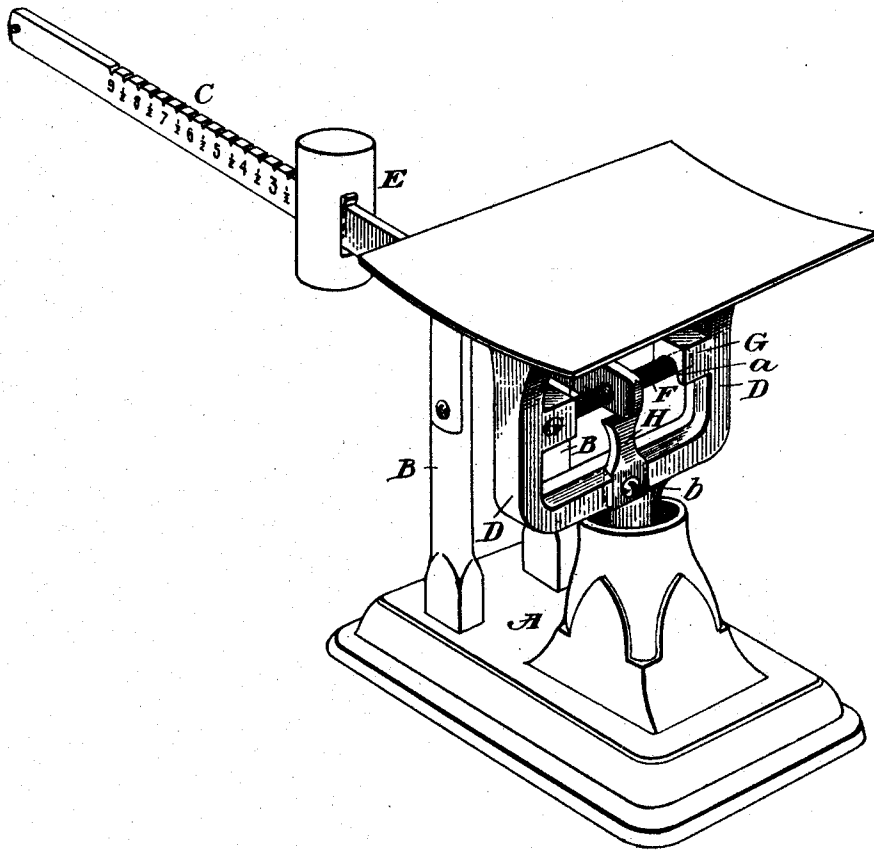


(No Model.)

C. C. MILLER.
WEIGHING SCALE.

No. 504,930.

Patented Sept. 12, 1893.



Witnesses
L. A. Connor
Gale P. Moore

Inventor
Charles C. Miller
By *Chas. S. Stuart*,
Attorney

UNITED STATES PATENT OFFICE.

CHARLES C. MILLER, OF NEW YORK, N. Y.

WEIGHING-SCALE.

SPECIFICATION forming part of Letters Patent No. 504,930, dated September 12, 1893.

Application filed May 10, 1893. Serial No. 473,659. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. MILLER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Scales, of which the following is a description, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention relates to an improvement in scales and I have herein shown it as applied to letter scales. Prior to my invention, in the construction of such scales, considerable difficulty has been experienced by the fact that the knife rod to which the short arm of the lever is attached and which fits in recesses formed in lugs upon the inner sides of the yoke supporting the pan, is continually getting out of position—as, for instance, when lifted in dusting or in moving from place to place.

The object of my invention is to provide an attachment for supporting the yoke of the pan which shall act as a stop to prevent the knife edge support of the short arm of the lever from slipping out of its bearing lugs.

The invention, therefore, consists in the matters hereinafter described and referred to in the appended claims.

The accompanying drawing is a perspective view of a letter scale provided with my invention.

In the drawing, A represents the base which is of the ordinary construction.

B are the uprights between which the lever C is fulcrumed.

D is the yoke upon the upper end of which the pan or receptacle for the article to be weighed is supported, and E is the poise sliding upon the lever or beam in the usual way. The short arm of the lever or beam is secured in the customary manner to a rod F with a knife edge fitting in lugs G, G, formed upon the inner side of the arms of the yoke. The lugs are hollowed out forming recesses *a*, the wall being cut away at the bottom to permit of the removal and insertion of the knife edge rod. When in position, the knife edge rod bears firmly against the under side of the wall of the lug, and, therefore, when the short

arm of the beam is raised it will, of course, force up the yoke with the pan, and when the weight on the pan forces down the yoke, the short arm of the lever will be forced down also. In lifting one of these scales by means of the beam, or by dusting vigorously as heretofore constructed, the knife edge rod is liable to be forced out of engagement with the recesses in the lugs on the yoke and thus, of course, throw the entire scale out of use. In fact, scales are frequently returned to the factory with nothing the matter but this. I overcome this difficulty and render accidental displacement of the knife edge rod practically impossible, by attaching to the central portion of the yoke the vertical piece H. The transverse part of the yoke is preferably cut away to accommodate the piece H which is secured by means of a screw *b* and extends to within a short distance of the short arm of the lever and beneath the same, so as to form a stop and prevent the knife edge rod from slipping out of its bearing recesses, as for example, when the scale is lifted by catching hold of the beams.

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

1. In a scale, in combination with the beam and the support for the pan, the detachable stop as H attached to the pan support; substantially as described.

2. In a scale, in combination with the beam, the yoke supporting the pan, the knife edge rod secured to the end of the short arm of the beam, and the stop H detachably secured to the yoke and arranged just below the said short arm of the beam; substantially as described.

3. In a scale, in combination with the beam, the yoke supporting the pan, and a vertical stop attached to said yoke moving with the same and extending upward to a point just below the beam; substantially as described.

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

CHARLES C. MILLER.

Witnesses:

M. C. T. WITTE,
W. D. HILL.