(No Model.)

J. R. WITZEL.

SCALE.

No. 591,202. Patented Oct. 5, 1897.

Fig. 1.

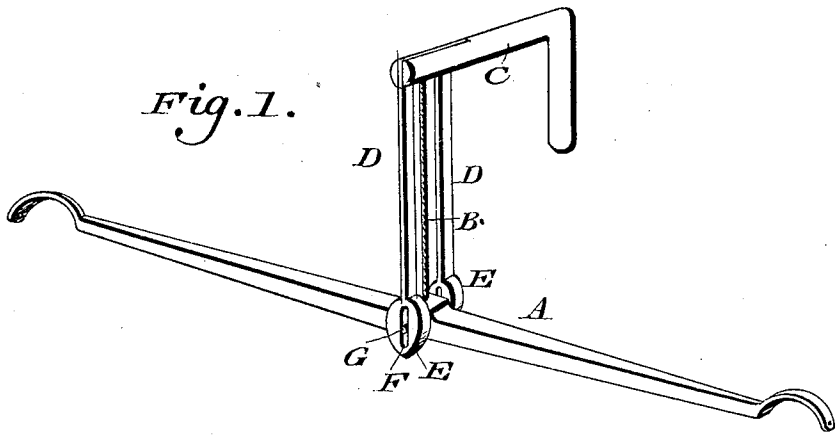


Fig. 2.

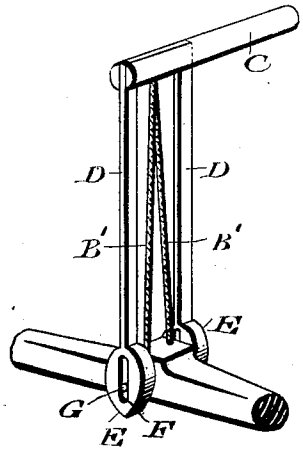
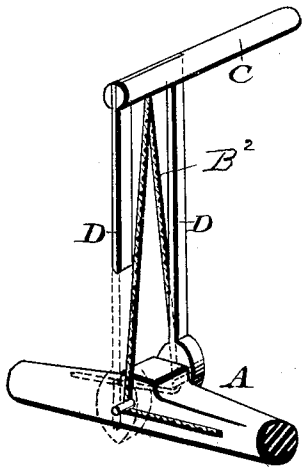


Fig. 3



WITNESSES.

P. F. Hagle.

L. Douville.

INVENTOR.

Joseph R. Witzel.

BY Johnson & Siegesheim.

ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH R. WITZEL, OF PHILADELPHIA, PENNSYLVANIA.

SCALE.

SPECIFICATION forming part of Letters Patent No. 591,202, dated October 5, 1897.

Application filed November 24, 1894. Serial No. 529,814. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. WITZEL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Scales, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a scale having a flexible device for suspending the beam thereof, whereby several advantages result, as will be hereinafter set forth.

Figures 1, 2, and 3 represent perspective views of portions of a scale embodying my invention.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a scale-beam to which is centrally secured the piece B of flexible material, such as cord, the upper end of which piece is connected with the limb C of the standard of the scale, it being noticed that the beam is suspended from said limb by means of said piece B.

Connected with and depending from the limb C are vertical bars or rods D, whose lower ends carry the eyes E, in whose slots or openings F freely project the gudgeons G, which extend horizontally from the sides of the center of the scale-beam and thus prevent swinging or swaying of said beam.

In Fig. 2 I show two flexible pieces B′ for the suspension of the scale-beam from the limb C, the same flaring at bottom and being connected with the center of the beam near the sides thereof.

In Fig. 3 the flexible pieces B^2 pass under the gudgeons of the beam and are secured to the sides of the beam; but in either case the beam is supported by the flexible pieces, which avoids friction on the beam, as it has no bearings, and knife-edges are dispensed with. There is accuracy in weighing.

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

1. A scale-beam having gudgeons thereon, a support having depending bars on opposite sides of said beam and a flexible piece connecting said beam and support.

2. In a scale, a support, bars depending from said support and having eyes therein, a scale-beam having gudgeons in said eyes and a flexible piece connecting said beam with said support.

3. A scale-standard having depending bars with eyes at their lower ends, a scale-beam with gudgeons on opposite sides of the center thereof, and a flexible piece connecting said standard and beam and carrying the latter, said bars being on opposite sides of said beam forming guides therefor.

JOSEPH R. WITZEL.

Witnesses:
JOHN A. WIEDERSHEIM,
A. P. JENNINGS.