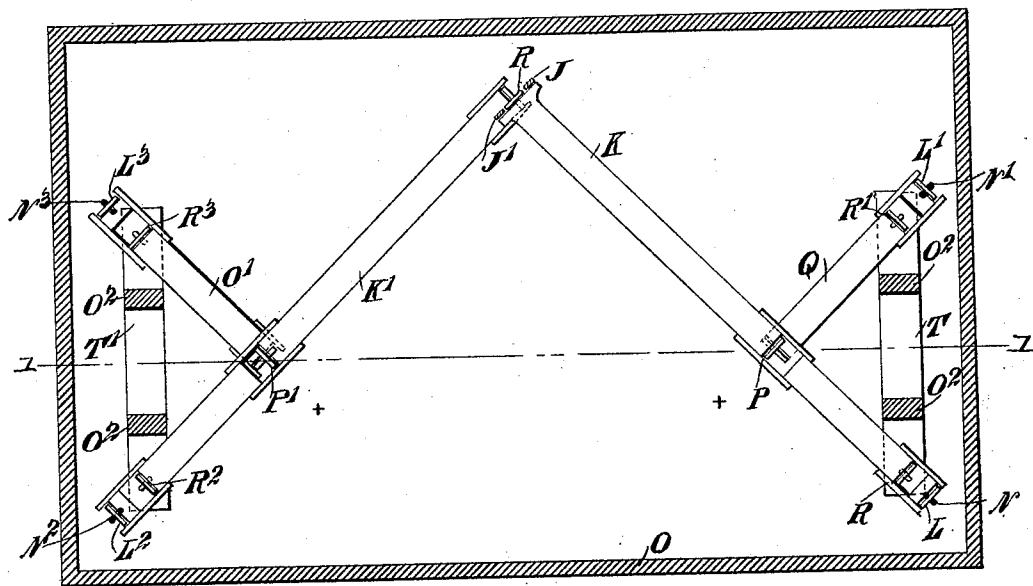
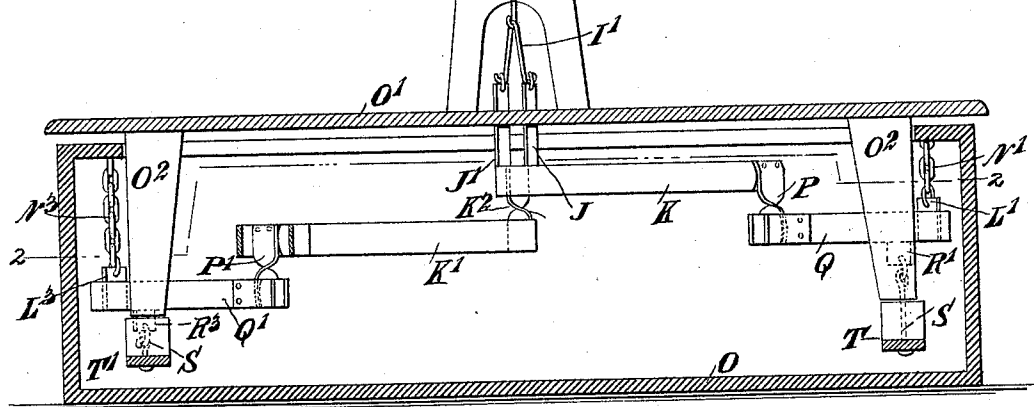
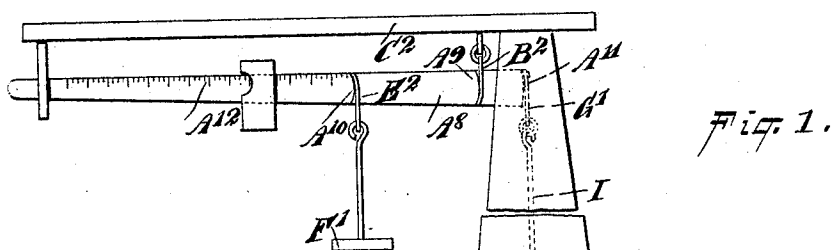


2 Sheets—Sheet 1.

No. 569,893.

Patented Oct. 20, 1896.



WITNESSES:

Witnessed:
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Rev. J. Foster,

INVENTOR

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BY

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

R. H. TAYLOR.
WEIGHING MACHINE.

No. 569,893.

Patented Oct. 20, 1896.

Fig. 3.

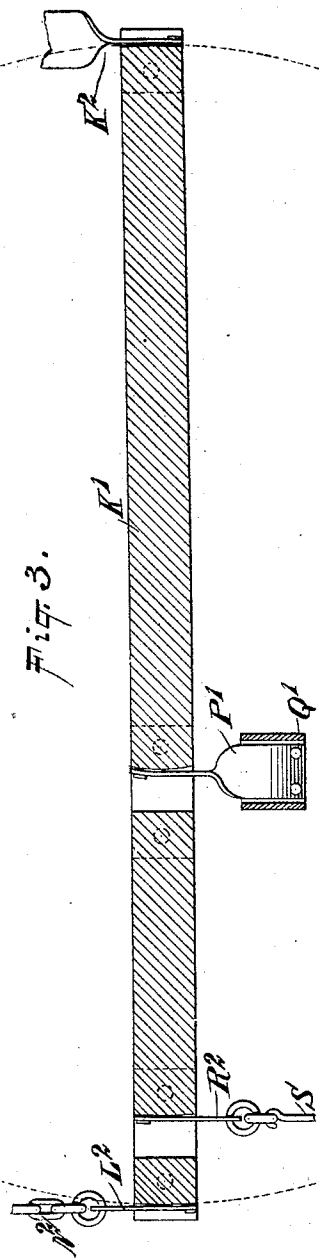


Fig. 4.

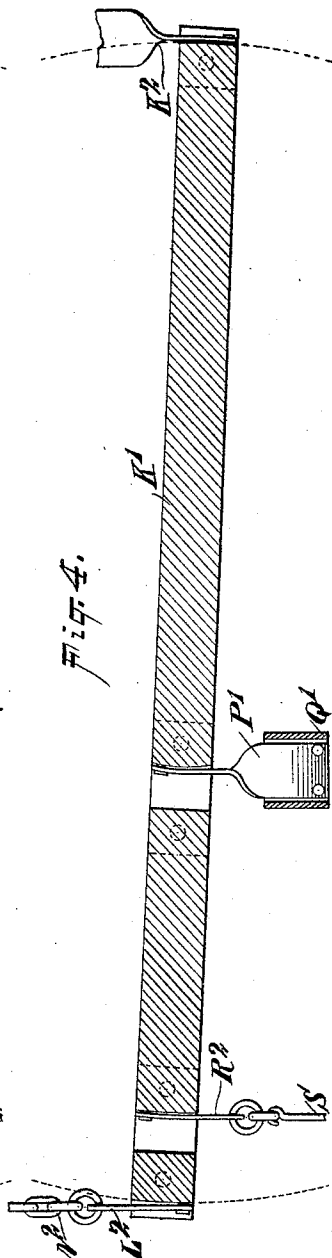
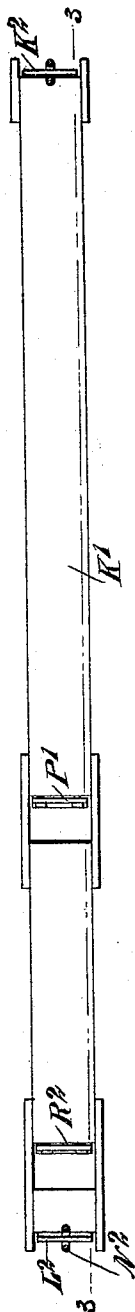


Fig. 5.



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UNITED STATES PATENT OFFICE.

RICHARD HENRY TAYLOR, OF WESTPORT, CONNECTICUT.

WEIGHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 569,893, dated October 20, 1896.

Application filed February 12, 1896. Serial No. 578,979. (No model.)

To all whom it may concern:

Be it known that I, RICHARD HENRY TAYLOR, of Westport, in the county of Fairfield and State of Connecticut, have invented a new and Improved Weighing-Machine, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved weighing-machine which is simple and durable in construction, very effective and accurate in operation, and not liable to get out of order, owing to undue wear or other causes.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional front elevation of the improvement as arranged for a platform-scale, the section being taken on the line 1 1 of Fig. 2. Fig. 2 is a sectional plan view of the same on the line 2 2 of Fig. 1. Fig. 3 is an enlarged sectional plan view of one of the platform-supporting beams on the line 3 3 of Fig. 5. Fig. 4 is a similar view of the same in a different position, and Fig. 5 is a plan view of the same.

The weighing-machine illustrated in the drawings is provided with a weighing-beam A^8 , formed with concentric segmental faces $A^9 A^{10} A^{11}$, of which the face A^9 is connected with a band B^2 , suspended from the bracket C^2 . The band E^2 on the face A^{10} carries a weight-support F' , and the other face, A^{11} , is connected with the band G' , supporting a downwardly-extending link I , connected with a double hook I' , having connection with bands $J J'$, attached to the inner end of a beam K , extending obliquely, as plainly illustrated in Figs. 1 and 2, the outer end of said beam being connected by a band L with a chain N , secured to the underside of the top of a well O , above which is arranged a platform O' , suspended as hereinafter more fully described.

The beam K is connected near its middle by a twisted band P with the inner end of an auxiliary beam Q , engaged at its outer end

by a band L' , suspended by a chain N' from the top of the well O , it being understood that the outer end of the beam K and the beam Q are of equal length from the twist P , and their segmental faces are struck from equal centers, it being understood that the centers for the bands J and P coincide at the middle of the beam K .

A twisted band K^2 connects the inner face of the beam K with a second beam K' , extending obliquely in the well O and diverging at right angles to the beam K , as is plainly illustrated in Fig. 2. The outer end of this beam K' is connected by a band L^2 with a chain N^2 for supporting the outer end of the beam K' from the top of the said well O . A beam Q' , similar to the beam Q , is connected by a twisted band P' with the beam K' at one side of its middle, and the outer end of this auxiliary beam Q' is connected by a band L^3 with a chain N^3 for supporting the outer end of the beam from the top of the well.

The outer ends of the beams K and Q are provided with downwardly-extending bands $R R'$, connected by links S with a transversely-extending support T , and the outer ends of the beams K' and Q' are likewise provided with bands $R^2 R^3$, connected by links S with a transversely-extending support T' , arranged directly opposite the support T . The two supports $T T'$ are adapted to receive the lower ends of the legs O^2 of the platform O' , so that the latter is supported on said beams.

The concentric segmental faces $A^9 A^{10} A^{11}$ of the beam A^8 are located proportionate distances from each other, so that when a load is placed on the platform O' then a downward movement of the band G' and a turning of the beam A^8 takes place, whereby the band E^2 is drawn upward, and at the same time the beam A^8 is lifted as it rolls up on the suspending band B^2 . Now when weights are placed on the support F' corresponding to the weight on the platform an equilibrium is again established, so that the weight of the load on the platform is obtained, it being understood that the operator has to place weights upon the support F' until the several parts are counterbalanced.

Now it will be seen that the faces of the bands $J, P, P', K^2, L, L', L^2, L^3, R, R', R^2,$

- and R^3 are segmental and are formed in the manner above described relatively to the segmental faces on the beam A^8 . By this arrangement any desired proportion can be given to the scale, according to the capacity required, it being understood that the weight placed on the platform O' causes an action of the several levers and that of the several beams in the well O and of the beam A^8 .
- 10 The outer end of the beam A^8 next to the face A^{10} is formed with a graduation A^{12} , representing a subdivision of a ton, one thousand pounds, or whatever unit the platform-scale is built for.
- 15 Now it will be seen that by the arrangement described a very sensitive platform-scale is obtained, said scale not being liable to get out of order, owing to undue wear or other causes.
- 20 Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—
1. A weighing-machine provided with a series of beams for supporting the weighing-
 - 25 platform, said beams having segmental concentric faces, bands connected with said faces for supporting said beams and connecting the same with the support for carrying the platform and a band connecting said beams with
 - 30 the weighing-beam above the platform, substantially as shown and described.
 2. A weighing-machine provided with a

platform-support comprising two obliquely-arranged beams having concentric segmental faces, the faces of the inner ends of the beams 35 being connected with the weighing-beam located above the platform, and the outermost faces being connected by bands with an overhead support, auxiliary beams supported from said oblique beams and having segmental 40 faces for the bands, and transverse supports supported from the outer ends of the auxiliary beams and the outer ends of the oblique beams, the said supports being adapted to carry the platform, substantially as shown 45 and described.

3. In a weighing-machine, the combination with a series of beams located beneath the weighing-platform, the said beams having segmental concentric faces and bands for sup- 50 porting said beams and connecting them with a support for carrying the platform, of a weighing-beam located above the platform the said weighing-beam being provided with segmental concentric faces, one of which is 55 connected with the said beams beneath the platform and the others connected respectively with a supporting-band, and a band adapted to carry the weights, substantially as shown and described.

RICHARD HENRY TAYLOR.

Witnesses:

THEO. G. HOSTER,
JNO. M. RITTER.