

(No Model.)

A. AEFFCKE.
WEIGHING MACHINE.

No. 578,532.

Patented Mar. 9, 1897.

Fig. 1

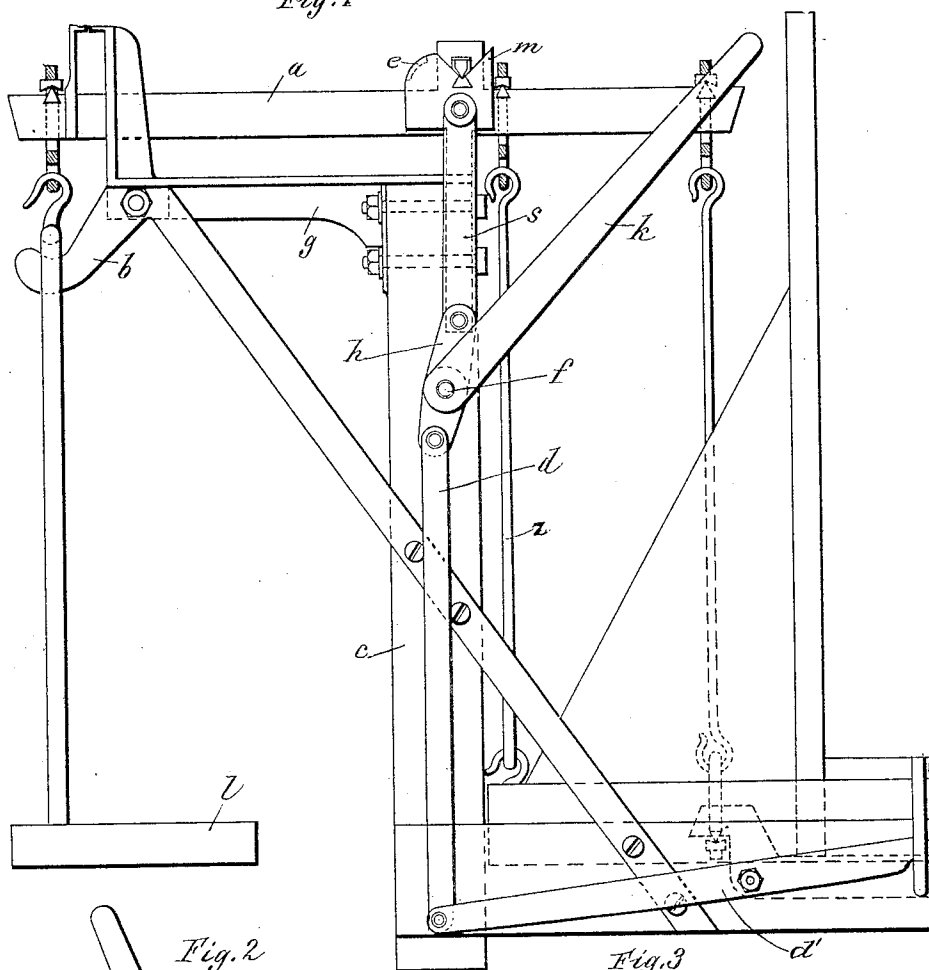


Fig. 2

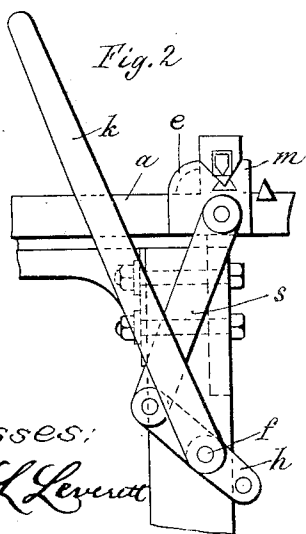
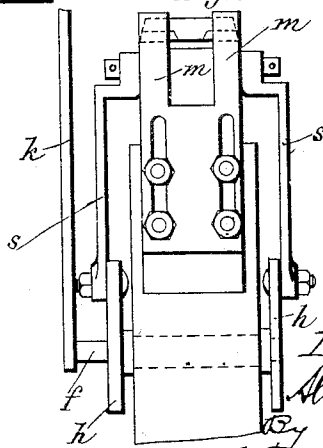


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT AEFFCKE, OF STETTIN, GERMANY.

WEIGHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 578,532, dated March 9, 1897.

Application filed December 20, 1894. Serial No. 532,396. (No model.) Patented in Germany August 1, 1894, No. 80,621, and in England November 19, 1894, No. 22,364.

To all whom it may concern:

Be it known that I, ALBERT AEFFCKE, scale and weighing-machine maker, a subject of the King of Prussia, German Emperor, and a resident of Stettin, in the Kingdom of Prussia and Empire of Germany, have invented certain new and useful Improvements in Weighing-Machines, (for which I have obtained English Letters Patent No. 22,364, dated November 19, 1894, and sealed March 5, 1895, and German Letters Patent No. 80,621, dated August 1, 1894, and granted March 21, 1895,) of which the following is a specification.

My invention relates to a device for relieving weigh-bridges of loads which, as compared with the relieving devices heretofore known, does not necessitate any special mechanism for supporting the weigh-beam. According to this invention the locking action is effected by depression of the middle bearing. This relieving device, besides being applicable to weigh-bridges, is also adapted for use with weighing-machines fitted with sliding weights, known as "steelyard-machines," and has also the advantage that the weigh-beam when locked is horizontal, thus obviating a one-sided strain on the knife-edge in case of shocks.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved weighing-machine. Fig. 2 is a detail side elevation of the middle bearing in its depressed position. Fig. 3 is a front elevation of the same in its raised position.

f is a rock-shaft mounted in a suitable part of the underframing of the weighing-machine, and having secured thereto a lever or handle *k* and a pair of vertically-arranged cross-bars providing levers *h*, which are connected by two vertically-extending rods *s* with a central or middle bearing *m*, which is supported by the rods and is arranged to slide vertically along the pillar *c* of the weigh-bridge.

By moving the handle *k* into the position shown in Fig. 2 the middle bearing *m* is depressed, and consequently also the weigh-

beam *a*, the weight-pan *l*, and the platform-rod *z*.

On further depression of the middle bearing *m* the weight-pan will be supported upon the bracket *b* of the projecting part or arm *g* of the framing, while the weigh-beam *a* is depressed as far as the framing *g* allows, until the stop *e* of the middle bearing bears upon the weigh-beam *a* and thereby locks or arrests the latter completely and holds it down on the arm, assisted by the weight of the middle bearing.

The relieving of the weigh-beam *a* is therefore, according to this invention, not produced by means of a special support, but directly by means of the depression of the middle bearing *m* away from the axis.

The arrangement herein described is also applicable in the same way to weighing-machines provided with sliding weights, and has also the additional advantage that the weigh-beam when locked is horizontal, thereby obviating one-sided wear of the knife-edges of the weigh-beam.

In order to lock the weigh-bridge platform, the levers *h* may be arranged to lock or bolt the platform or bridge by means of the rod *d*, having lever-arm *d'*.

Having thus described my invention the following is what I claim as new therein and desire to secure by Letters Patent:

1. A weighing-machine comprising a pillar having a laterally-extending arm, a weigh-beam normally seated directly on the arm, a middle bearing having a stop extending over and normally seated directly on the weigh-beam, the middle bearing being normally out of contact with the axis thereabove, and means for raising and lowering the middle bearing of the weigh-beam for engaging and disengaging the axis of the weigh-beam for raising and lowering the latter; substantially as described.

2. A weighing-machine comprising a pillar having a laterally-extending arm provided with a bracket, a weigh-beam normally supported on the arm, a weight-pan connected with the weigh-beam and normally supported on the bracket, a middle bearing normally supported on the weigh-beam, out of contact with the axis of the latter, and means for

raising and lowering the middle bearing for
engaging and disengaging the axis of the
weigh-beam for raising and lowering the lat-
ter with the weight-pan; substantially as de-
5 scribed.

3. The combination of the pillar *c*, the hori-
zontal rock-shaft *f* journaled in the pillar, the
arm *g* secured to the pillar, the bracket *b* se-
cured to the arm, the weight-pan *l* supported
10 on the bracket, the weigh-beam *a*, with which
the weight-pan is connected, having an axis,
the middle bearing *m* adapted to slide on the
pillar and to engage the axis of the weigh-

beam, the vertical cross-bars *h* mounted on
the rock-shaft, the vertical rods *s* whereby 15
the middle bearing and the cross-bars are
connected, and means for swinging the cross-
bars for raising and lowering the middle bear-
ing; substantially as described.

In witness whereof I have hereunto set my 20
hand in presence of two witnesses.

ALBERT AEFFCKE.

Witnesses:

F. W. KICKBUSCH, Jr.,
F. W. KICKBUSCH.