

F. A. RIEHLE & T. OLSEN.
Scales.

No. 155,753.

Patented Oct. 6, 1874.

Fig. 1.

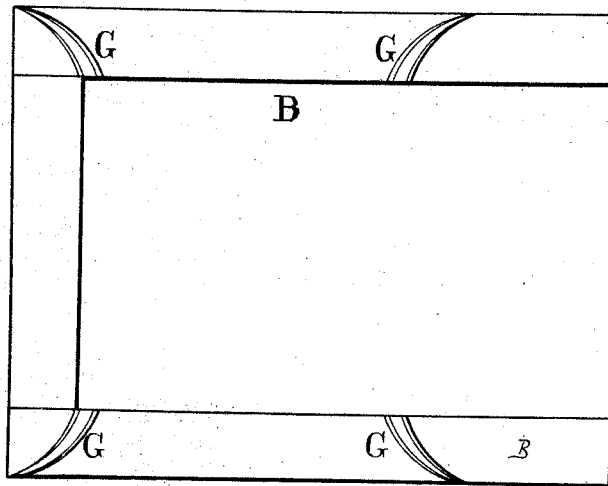


Fig. 2.

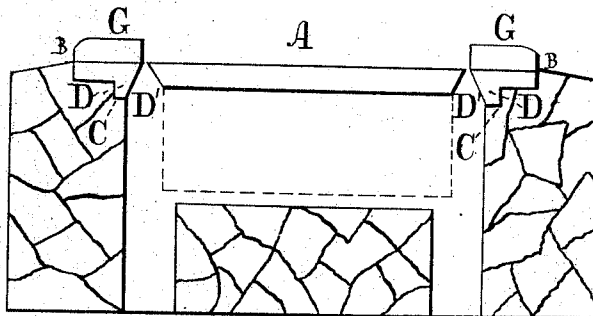
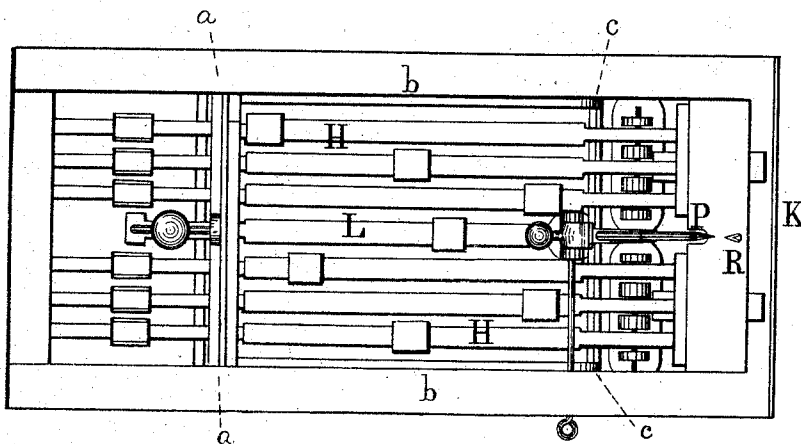


Fig. 3.



Witnesses

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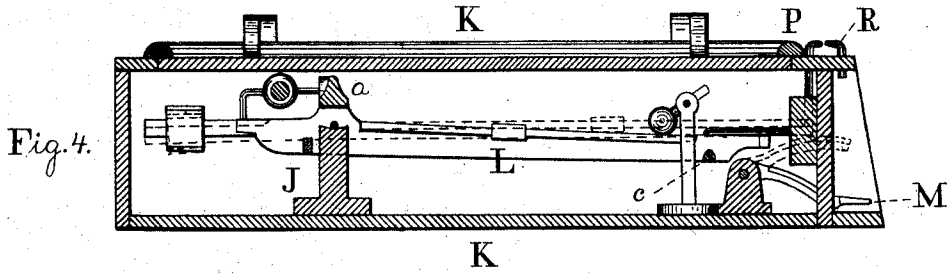


Fig. 5.

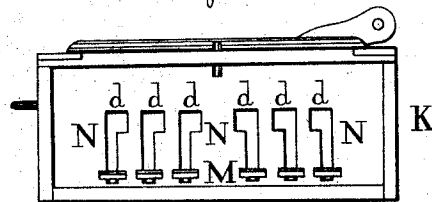


Fig. 6.

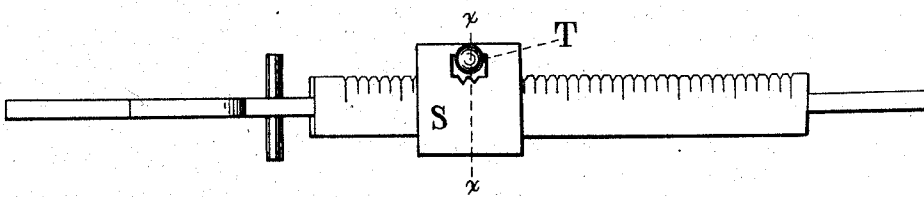
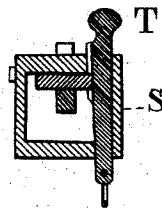


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK A. RIEHLÉ AND TINIVS OLSEN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO RIEHLÉ BROS., OF SAME PLACE.

IMPROVEMENT IN SCALES.

Specification forming part of Letters Patent No. **155,753**, dated October 6, 1874; application filed May 29, 1874.

To all whom it may concern:

Be it known that we, FREDERICK A. RIEHLÉ and TINIVS OLSEN, both of the city and county of Philadelphia and the State of Pennsylvania, have invented a new and useful Improvement in Scales; and we do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which our invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top view of one part of our invention. Fig. 2 is an end view thereof. Fig. 3 is a top view of another part of the invention. Fig. 4 is a central vertical section thereof. Fig. 5 is an end view thereof. Fig. 6 is a top view of another part of the invention. Fig. 7 is a transverse vertical section thereof in line *x x* of Fig. 6.

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

This invention consists in means for locking the poise on the weighing-beam. It further consists in a horizontal arrangement of beams, whereby different substances or commodities can be readily and accurately weighed, without any adjustment or alteration of the apparatus, and without any knowledge on the part of the attendant, and ability to tamper with the adjustable parts.

Referring to the drawings, A represents the platform, which may be of well-known form and construction, and connected to the weighing apparatus, as usual. B represents a metal frame, which may be made of one or more pieces, and is arranged on the mason-work surrounding the platform A. Flanges C depend from the inner edges of the frame B, and bear against the adjacent portions of the mason-work on which the frame is supported. The inner sides D of the flanges are beveled or sloped, the narrowest part being below, so that the space D' between the sides D and the platform A widens downwardly. The upper faces of two opposite sides of the frame B are constructed with guards G, which are of flaring form, and extend transversely on the said two sides of the frame.

It will be seen that the top of the platform A and metal frame B are of uniform height or level, whereby wheels of vehicles are permitted to pass over the edges of the platform without striking against the same, whereby jarring of the platform is prevented, and the fulcrums of the levers are relieved.

Should stones, dirt, or other substances fall in between the frame and platform, lodgment thereof is prevented by the sloping sides of the flanges of the frame, causing the descent of the said substances. The flanges C serve to hold the frame in position on the mason-work.

H represents a series of weighing-beams, which are arranged horizontally side by side, and mounted on a chair, J, located in a box or casing, K, which is under lock and key, or otherwise reliably secured. At the center of the series of the levers is the main beam L, which is arranged parallel with said series, and a portion of said beam extends transversely, at *a*, over the series of beams H above the fulcrums thereof, then passes longitudinally, at *b*, at the sides of the series of said beams to near the forward ends thereof, where it extends under the same, at *c*, so that the rear portion *a* is above the beams H, and the front portion *c* beneath the same. Beneath the forward ends of the beams H are arranged pawls or latches M, which are hinged to the case K, and project through openings N therein, so as to be conveniently reached and operated. Each opening or slot N has a lateral extension, *d*, at its upper end, for the reception and support of the relative pawl or latch M when the latter is placed therein.

It will be seen that, as the front portion *c* of the beam L bears against the under side of the beams H, the weighing action of the platform of the scale, which is connected to the main beam, will cause the beams H to move with the main beam.

When, however, the beams H are elevated at their forward ends, they clear the portion *c* of the beam L; consequently said beams H are rendered inoperative.

The series of beams H are auxiliary to the main beam, but each beam H has a motion independent of the other, and is designed for

weighing a different commodity or substance, or for what is generally known as charging.

The poises of the beams will be set to a desired amount, and then the case K is locked, or otherwise secured.

Whenever a beam, H, is not required at a given time, it is disconnected by lifting its relative latch or pawl, and holding the latter in the extension part *d* of the notch in which it moves.

Suppose it is desired to weigh five hundred pounds of iron. Then all of the beams, excepting the one for iron previously set at five hundred pounds, are elevated, and thus disconnected from the main beam. The vehicle with the iron is then run on the platform of the scale, and, if the right amount is on hand, the main beam L, having its front portion *e* bearing against the beam for weighing iron, acts with said beam, and indicates the result, for which purpose a finger, P, may be secured to the forward end of the main beam, and project beyond the casing K, where it operates with the index R.

If one hundred pounds of lime are to be weighed, we elevate or disconnect all of the beams excepting the one designed for lime previously set at one hundred pounds, and the operation is the same as before.

The disconnection of the beams H is accomplished by raising the pawls or latches M, which operation elevates the beams H, and causes them to be clear of the main beam L. By lowering the pawls or latches, the beams H are again operative with the main beam.

The poise S embraces and slides on the weighing-beam; and in order to lock the two parts, we form in one side of the poise an opening, and in the same fit a wedging-pin,

T, which is adapted to engage either with the notches or teeth of the beam or openings formed therein, in such position that the pin will drop, or may be moved thereinto.

If the pin engages with the notches or teeth of the beam, the part of the former that comes in contact with said teeth or notches should be toothed to properly engage therewith.

When the poise is to be adjusted, the wedging-pin T is withdrawn, and the poise shifted. When the proper spot is reached, the pin is permitted to drop, or returned to its first position, and thus the locking of the beam and poise is accomplished by the wedging of the pin and beam.

We are aware that Letters Patent have been granted for charging scales, for the purpose of weighing different substances or commodities without alteration of the apparatus, or knowledge on the part of the attendant, and therefore disclaim such features; but

Having thus described our invention, what we do claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the sliding poise S and beam, of the sliding wedge-pin T, for locking said poise and beam, substantially as shown and described.

2. The series of horizontally-arranged auxiliary beams H, and the main beam L, with transverse extension engaging with said beams H, substantially as in the manner and for the purpose set forth.

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