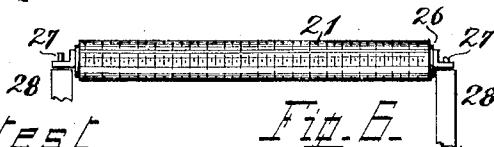
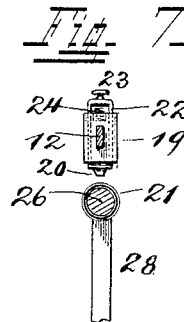
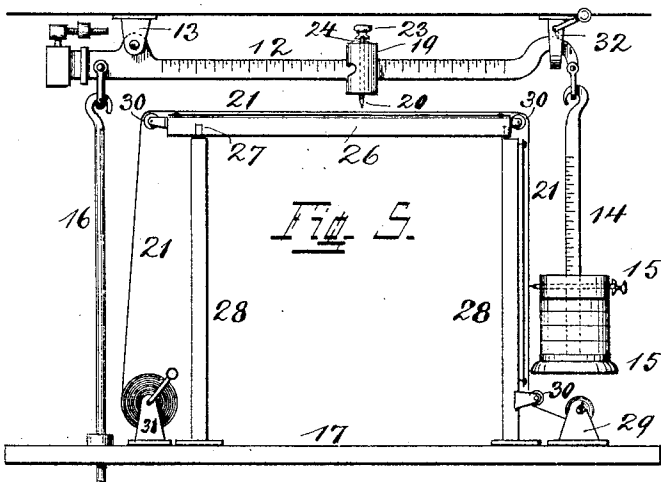
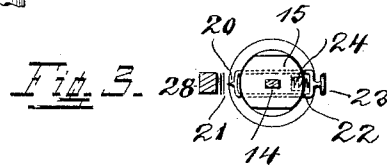
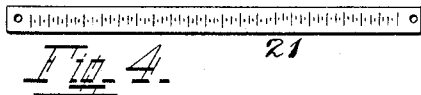
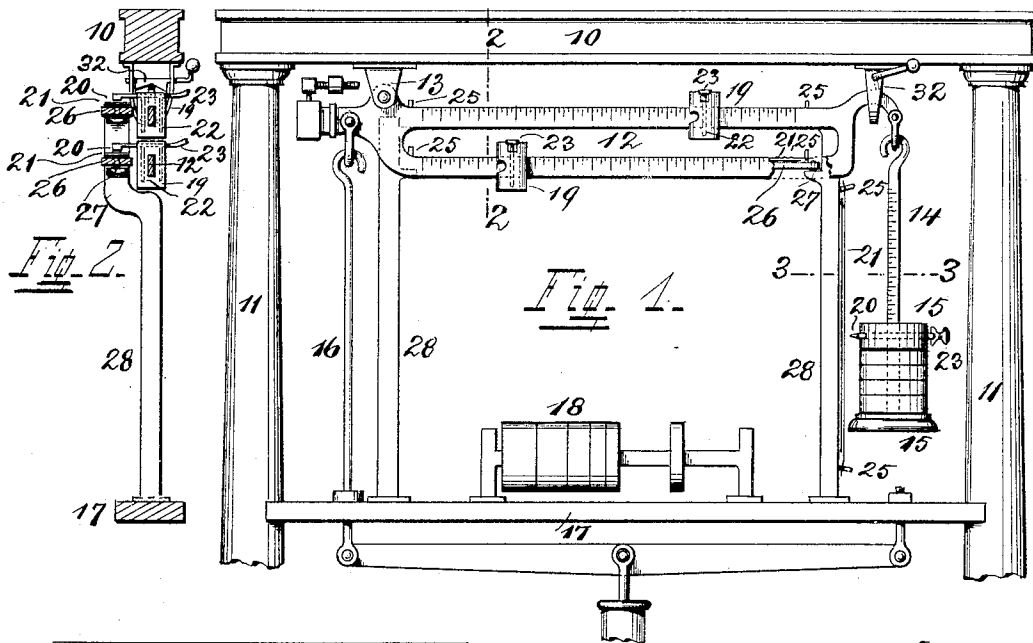


(No Model.)

F. B. FINLEY.
RECORDING ATTACHMENT FOR SCALES.

No. 532,147.

Patented Jan. 8, 1895.



Attest
Jm. Kramer.
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by C. Spengel Atty.

UNITED STATES PATENT OFFICE.

FREDERICK B. FINLEY, OF CINCINNATI, OHIO.

RECORDING ATTACHMENT FOR SCALES.

SPECIFICATION forming part of Letters Patent No. 532,147, dated January 8, 1895.

Application filed January 22, 1894. Serial No. 497,586. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. FINLEY, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Recording Attachments for Scales; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to improvements in attachments for scales of the larger kinds such as hay, grain, warehouse-freight, track and other similar scales. Such scales are provided with one or more graduated beams upon which the weight or poise slides which is moved thereon until it balances with the load upon the platform, its particular position with reference to the graduation on the beam indicating the weight. This sliding weight or poise is provided with means whereby upon a strip located immediately below and graduated similar to the beam, an impression may be made on such strip at the time when the poise has arrived in the position where it indicates the exact weight after which such strip with the impression thereon may be removed to serve as a record which may be preserved as a voucher in case any dispute should arise in the future, as well as to guard against any mistakes during the weighing.

My invention therefore consists of improvements in the means whereby the impression is made for the purpose of registering the position of poises or weights and the object is to construct them in a manner to make them particularly adapted for use on two-beam scales and on scales where vertical or counter-poise-beams are used.

In the following specification and particularly pointed out in the claim, is found a full description of my invention, its operation, parts and construction, the latter being also illustrated in the accompanying drawings, in which—

Figure 1, is a front elevation of the upper part of a platform-scale provided with a double scale-beam. Fig. 2, is a vertical section

on line 2—2 of Fig. 1, and Fig. 3, is a horizontal section on line 3—3 also of Fig. 1. Fig. 4, shows a recording strip detached. Fig. 5, is a view similar to Fig. 1, omitting the scale-frame and showing a modified construction of my attachment as used in connection with a one-beam scale. Fig. 6, is an elevation of a modified form of the recording strip and its support and Fig. 7, is a vertical cross-section of the same.

In the drawings, 10 indicates the top-part and 11,—11 the uprights, or pillars of a scale of usual form.

12 is the graduated scale-beam, pivoted at 13 and provided at its free and swinging end with the counter-poise-beam 14, also graduated and the permanent counterpoise-weights 15. By means of a rod 16, attached near its other end and reaching down, connection is made between the scale beam and the platform and other scale-mechanism below.

17 is a shelf reaching from one standard to the other and serves usually as a support for the extra weights 18, to be used in connection with the counter-poise and on the vertical beam thereof.

19 is the sliding weight or so-called poise, adjustably secured to the scale-beam and it determines by its position the weight of the object, such weight being indicated by the graduation on the scale-beam.

For the purpose of recording the position of the poise a stamp or impressor 20 is provided, which is dependent in its position on the position of the weight or poise, for which purpose it is best connected with the latter and it is operated at the proper time in a manner to make an impression or mark upon a strip 21, located within reach of the impressor-point, such strip to be graduated similarly to the scale-beam and to be in a corresponding position to it, so that for instance when the poise indicates 50 and the impression stamp is operated, the mark it leaves will also indicate respectively 50 upon the strip. This impression stamp 20 is connected to two-guide-rods 22, passing through corresponding holes in the poise, and above the latter they are connected to a handle or push-knob 23 whereby the stamp may be depressed against the strip below. The stamp is held away from the latter, respectively returned after each

operation, by a spring 24 interposed below the knob and between the poise. On account of the limited room where two scale beams are used the impression-point is extended out laterally from the poise on one side, while the handle is extended out from the other.

The location of the impression-strip 21 is of course such as to come within reach of the stamp. It is provided with a hole at each end into which pins 25 fit, which project from a shelf 26, forming the support for the strip. These holes and pins are so located that when the strip is in position, the graduation on the latter will also be in proper position for the impression-stamp. Shelves 26 have also holes in their ends which pass over pins 27 secured to or near the upper ends of standards 28. The upper ends of these standards are shaped accordingly to meet the required location of shelves 26.

For the purpose of showing the position of the weight on the counter-poise-beam, the counter-poise-weight is provided in the same manner with an impression-stamp, with the only difference that the record-strip, to be used in conjunction therewith, is in a vertical position. As a shelf or support for the latter, the adjacent one of the standards 28, may serve to which the strips are attached in a way similar to the horizontal strip and by means of pins 25.

In place of having strips for each transaction, a larger number of them may be printed on one continuous strip and stored in form of a roll in suitable bearings 29 as shown in Fig. 5. Shelf 26 is in this case provided with guide-rollers 30 over which the strip passes to a winding-drum 31 upon which it is stored. Shelf 26 may also be cylindrical as shown in Figs. 6 and 7, and a number of strips may be united side by side on a hollow paper cylinder fitting over the cylindrical support. For each transaction this cylindrical strip is then merely advanced by turning on the round shelf, until finally, when all strips have been used, the whole is lifted out of the pins, the

used cylinder removed and a new one slipped on. In all of these cases the construction of the impression-stamp on the poise remains the same.

As a transfer-medium, I use carbon-paper or which is preferable, typewriter-ribbon, which is affixed below strips 21 and on shelves 26 or standard 28 in any suitable manner.

It should be mentioned here that strips 21 are so placed, as to bring their surface with the graduation next to and against the transfer-medium. In the case of the cylindrical strip as shown in Fig. 6, it is preferable to cut the same open after use, whereby it may be more conveniently stored in form of a flat sheet.

In order to counteract the lateral vibrations of the scale-beam and to cause the same to come always to a rest in the same position laterally so that the stamp on the poise may reach the strip properly, I make the trig-loop 32 in the shape of an inverted V, into the highest part of which the free end of the beam always slides and whereby the stamp on the poise, when operated, will strike the recording strip always in the same position.

Having described my invention, I claim as new—

In a recording attachment for scales, the combination of the beams and adjustable poises and weights thereon, guide-rods 22 which pass through perforations in the latter and are connected to each other, a stamp and a handle supported by the guide-rods, each extending laterally and in opposite directions beyond the weight, a shelf located laterally from the scale-beams so as to be adapted to support a recording strip within reach of the stamp, and a spring to keep the latter normally out of contact with the recording strip.

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

FREDERICK B. FINLEY.

Witnesses:

WM. KRAMER,
C. SPENGEL.