


### Balance Scale.

Patented Oct. 15, 1867.



Inventor   
J. Brown Taylor  
by his Attorneys  
Piedersheim & Co.  
Attys.

# United States Patent Office.

T. GROW TAYLOR, OF LAWRENCEVILLE, NEW YORK.

*Letters Patent No. 69,948, dated October 15, 1867; antedated April 17, 1867.*

## IMPROVEMENT IN RULE AND LETTER-SCALES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, T. GROW TAYLOR, of Lawrenceville, in the county of St. Lawrence, and State of New York, have invented a new and useful combined Rule and Letter-Scale; and I 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 it appertains to fully understand and use the same, reference being had to the following drawings, making part of this specification, in which—

Figure 1 is a perspective view of the device illustrating my invention.

Figure 2 is a transverse vertical section thereof, in line *x x*, fig. 1.

Figure 3 is a longitudinal vertical section thereof, in line *y y*, fig. 1.

Figure 4 is a perspective view, showing the application thereof.

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

My invention consists in adapting an ordinary rule or ruler to be used as a letter-scale by certain appliances whereby the functions of both will be retained, yet both act independently of each other. A convenient and useful device is thus produced, as will be hereinafter more fully described.

In the drawings A represents a rule or ruler of ordinary construction. The upper side is cut out or grooved for a certain distance of its length, forming a channel, A', over the edges of which is secured an open plate or frame, B. The inner side of this plate is provided with notches *a'*, which will represent certain weights of the denominations usually found in letter-scales, such as ounces and half ounces. C represents a slide, moving in the channel A', and retained in place by the frame or plate B. The slide consists of an angular block, having its short arm *a* to protrude beyond the short plate B, and which will form the fulcrum of the scale. The long arm *b* rests on a spring, E, which lies longitudinally in the channel A', and is held in place by the plate B. This spring is made of any suitable material, and has its inner end firmly secured in place. Its outer end is turned or formed into a hook-pin or catch, *c*, by which the letter is to be held while being weighed. It will be perceived that the slide can readily be moved in the channel, and will drop in the notches and be retained there by the spring E. The weight of the letter is to be determined by the notches.

The operation is as follows: The rule is to be placed in the position shown in fig. 4, that is, with the slide underneath, and the weighing end to project over the end of a table, desk, or other resting place. The letter may be held by its flap catching in the hook, or be pierced in one corner by the pin. The inner notch will represent a half ounce, and the next one a full ounce. If the letter is of the former weight the scale will be balanced, but if it is more the slide must be moved accordingly, and the weight be determined thereby relative to the notches.

In lieu of the hook or pin *c*, at the end of the spring, a catch or spring-frame may be secured to the end of the ruler. The spring E may be made to move with the slide C. For this purpose the rule or ruler should be grooved or channelled further than that described to allow the spring to slide therein. Instead of notches in the frame or plate B, they may be marked or cut in the channel A'. The short arm *a* of the slide must, then, be made longer and of proper shape, so as to protrude beyond the plate B. The hook or pin *c*, or catches, as described, may also be dispensed with. A small portion of the gum of the flap of the envelope may be moistened or "wetted" and applied to end of the rule, and thus hold the letter in place, or gum may be applied directly to the rule for the same purpose. The sides of the groove or channel A' may overhang, so as to form flanges, which may be notched and have the same functions as the plate itself, and thus dispense with the same.

The simplicity, practicability, and utility of my invention are evident, and it can be quickly and cheaply constructed.

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

1. The rule A, adapted as a letter-scale, when constructed and operating substantially as described.
2. The slide C, spring E, and plate B, in combination with the rule A, substantially as described, for the purpose specified.

To the above I have signed my name this 13th day of April, 1867.

T. GROW TAYLOR.

Witnesses:

D. OURAND,

JOHN A. WIEDERSHEIM.