

(No Model.)

H. BROOKS.

TOUCH REGULATING RAIL FOR PIANOS OR ORGANS.

No. 391,940.

Patented Oct. 30, 1888.

Fig.1.

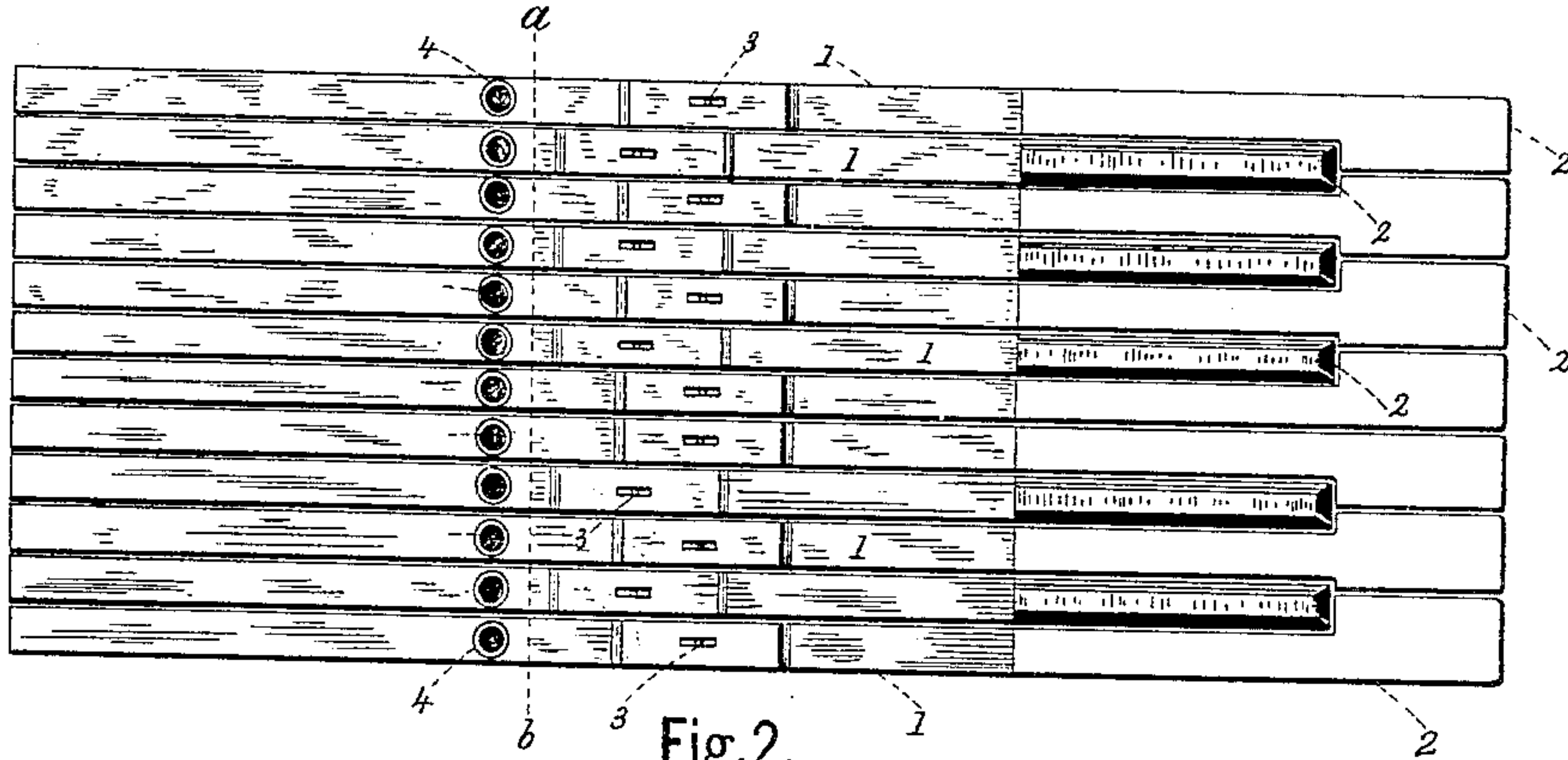


Fig.2.

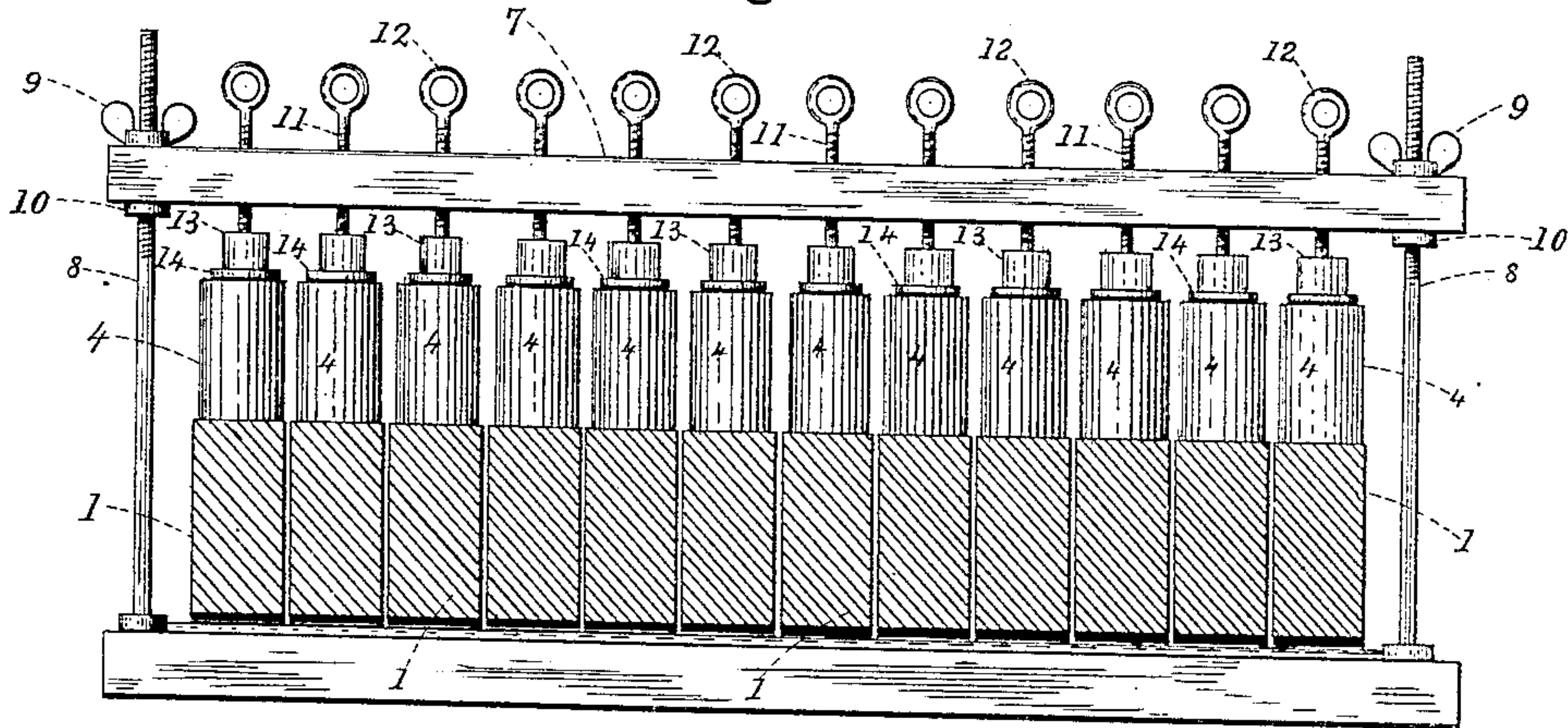
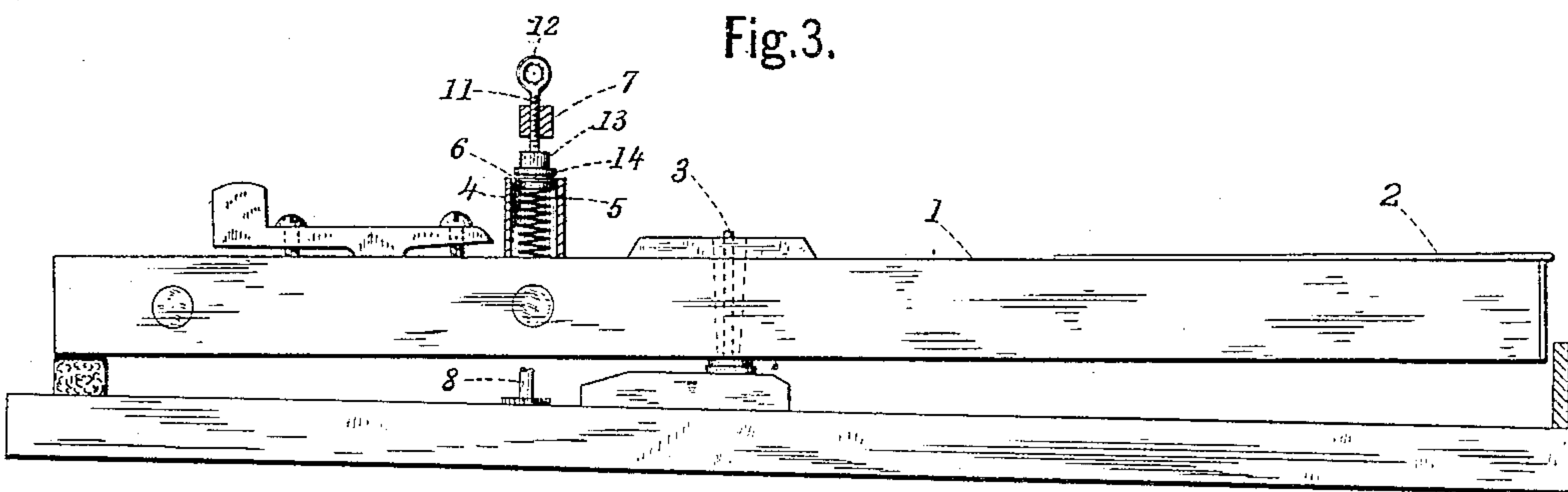


Fig.3.



Witnesses.

A. W. Sangster,
Harriet Johnson,

Harriet Brooks, Inventor.

By *James Sangster,*
Attorney.

UNITED STATES PATENT OFFICE.

HARRY BROOKS, OF DUNKIRK, NEW YORK, ASSIGNOR TO HIMSELF AND
HARRISON TUTHILL, OF SAME PLACE.

TOUCH-REGULATING RAIL FOR PIANOS OR ORGANS.

SPECIFICATION forming part of Letters Patent No. 391,940, dated October 30, 1888.

Application filed August 7, 1888. Serial No. 282,143. (No model.)

To all whom it may concern:

Be it known that I, HARRY BROOKS, a citizen of the United States, residing in Dunkirk, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Touch-Regulating Rails for Pianos or Organs, of which the following is a specification.

My invention relates to certain new and useful improvements in touch-regulating devices for pianos; and it consists in a touch-regulating rail made adjustable vertically and carrying a series of separate adjusting devices, whereby the touch of a single key may be regulated separately from the rest, or the whole may be adjusted at once, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of a series of piano-keys and key-levers, showing my invention connected therewith, the rail or cross-bar, its adjusting devices, and some minor portions being omitted. Fig. 2 represents an enlarged cross-section through a series of key-levers in or about line *a b*, Fig. 1, showing a front elevation of the touch-regulating device; and Fig. 3 is a side elevation of a key and key-lever, showing one of the touch-regulating devices in section, so as to expose its interior construction.

The numeral 1 represents the ordinary piano-key lever, and 2 is the key. It is pivoted in the usual way by a pin, 3, secured to the base or support and passing vertically up through the key, substantially as shown. These pivoted keys and the several parts connecting them with a piano-forte action are old and well known; consequently a further description of them here is unnecessary. On the top of each key back of its pivotal center, 3, is secured a small cylinder or tube, 4. Within each of the cylinders 4 is a light spiral spring, 5, (see Fig. 3,) having a small disk, 6, of felt or other suitable material as a covering for the tops of the springs.

The touch-regulating rail or cross-bar 7 is supported on the two vertical rods 8, so as to be easily adjusted up or down by means of the thumb-screws 9 and 10, which are adapted to screw up or down on the rods 8. This touch-regulating rail or cross-bar 7 is provided with a series of adjusting-screws, 11,

having at their tops thumb-pieces 12, by which they are easily turned by the fingers when necessary, and secured to their lower ends is a small cylindrical block or plunger, 13, each provided with a small disk of felt or other soft light material, 14. By this construction it will be seen that by adjusting the touch-regulating rail or cross-bar 7 downward by means of the thumb-screws the portions 13 and 14 will press down upon the spiral springs 5, compressing them in proportion to their adjustment downward, and thereby increasing the touch of the keys or the force required to move them, and by reversing the operation or adjusting the rail 7 upward the touch of the keys may be softened to any degree required. It will be further seen that the touch of each key may be regulated or adjusted separately by turning the screws 11, and thereby moving the plungers up or down.

This device can be easily attached to any piano, either old or new, and will produce a correct touch on an old piano when the touch is lost. It provides a ready means of adjustment at all times to the exact point required, and will prevent keys from sticking by reason of dampness or from other causes, and it may be and is adapted to be used with any kind of piano-action.

An equivalent to the spiral springs 5 would be any kind of well-known yielding spring against which the plungers could be adjusted to act against to increase or diminish the force against the springs.

If desired, the spiral springs 5 may be secured at their lower ends to the key-levers 1 and the inclosing-cylinders 4 dispensed with; but I prefer inclosing the springs as described, as it protects them from injury and dust.

I claim as my invention—

A touch-regulating device for pianos, consisting of a rail or cross bar carrying a series of adjustable plungers and mounted on vertical supporting-bars, so as to be adjustable vertically thereon, in combination with a series of piano-keys provided with springs against which the plungers are adjusted to act, substantially as described.

HARRY BROOKS.

Witnesses:

JAMES SANGSTER,
ARTHUR J. SANGSTER.