

G. Byington.

Indicator.

N^o 13,977.

Patented Dec. 25, 1855.

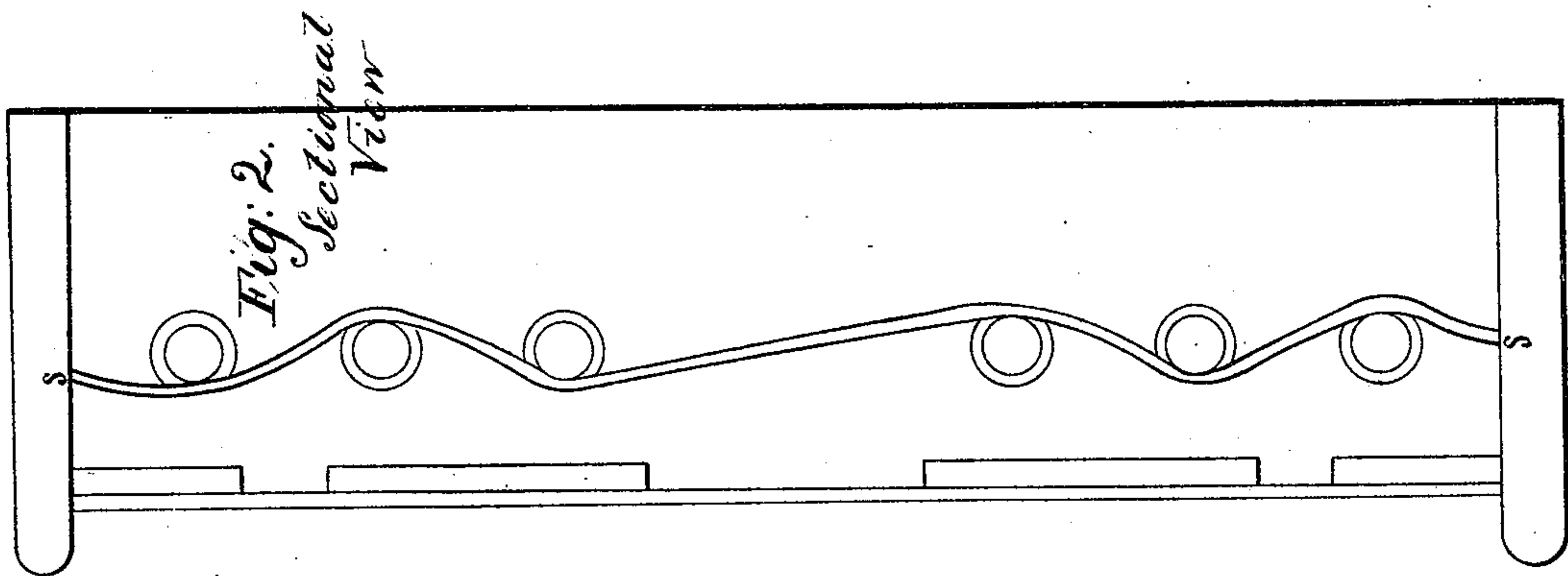
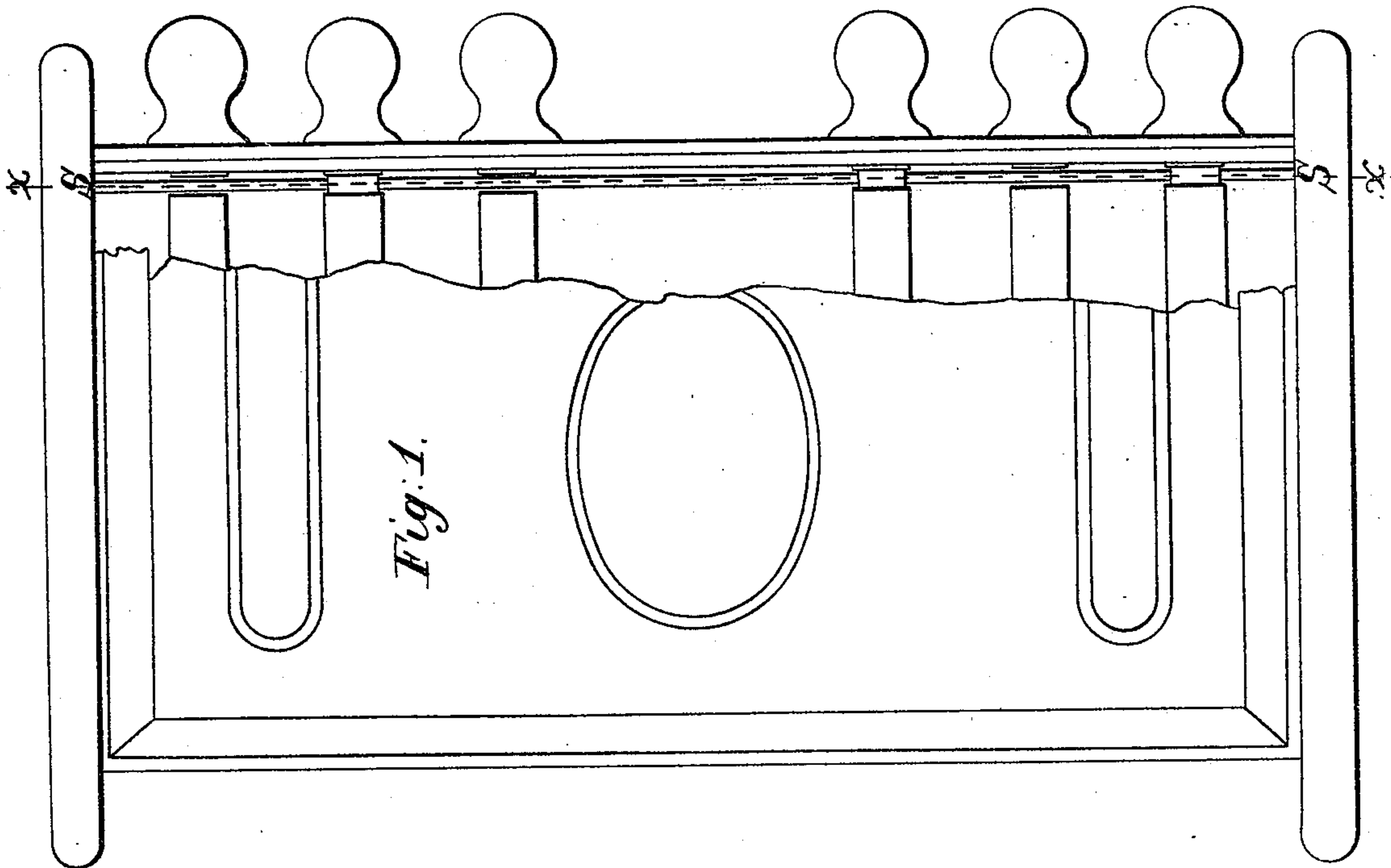
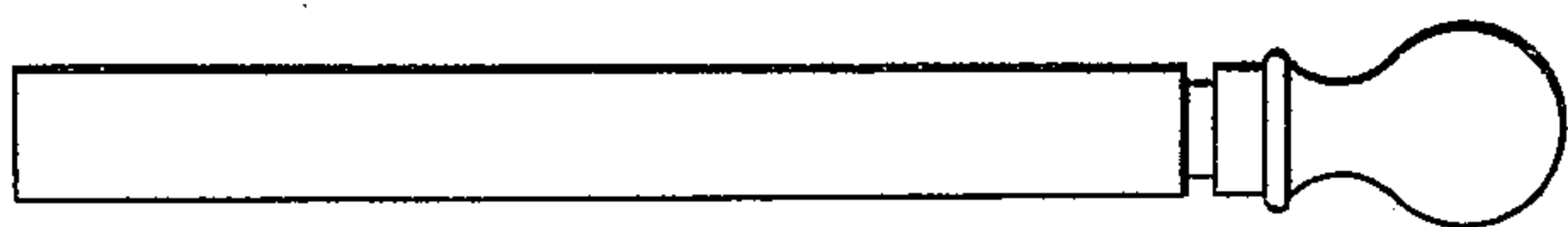


Fig. 3.



UNITED STATES PATENT OFFICE.

GEO. BYINGTON, OF ROCHESTER, NEW YORK.

TIME-INDICATOR.

Specification of Letters Patent No. 13,977, dated December 25, 1855.

To all whom it may concern:

Be it known that I, GEORGE BYINGTON, of Rochester, in the county of Monroe and State of New York, have invented certain
5 new and useful Improvements in Time-Indicators, of which the following is a full and accurate description, reference being had to the accompanying drawings, making part of this specification, in which—

10 Figure 1 is a front view with the front partially broken away to show the internal mechanism. Fig. 2 is a sectional elevation on line X X. Fig. 3 is an elevation of a single roller showing the groove for the
15 spring.

The nature of my invention consists in the addition of the steel spring S S whereby the instrument is made to work much more easily and pleasantly than by the old construction, and is also more easily made.
20

It will be observed on referring to the applications of James Lew and E. J. and J. W. Blackham, that the rollers to which the knobs or buttons are attached must go
25 through a hole, in the side of the case next the knobs, the full size of the rollers, unless the knobs be put on after the rollers are in place, or the case be cut across so that they may slide in, either of which methods would be bungling and inelegant. It is usually
30 preferred therefore, to pass them through full size, and prevent them from drawing out, by means of pins driven through them on the inside. Again, as these rollers are
35 rarely fitted equally tight in their journals, and if they be so fitted, they will soon wear unequally one of the pair of rollers is sure to turn back after being let go, owing to

the elasticity of the cloth and the tightness of the other roller. Indeed in many which
40 have been made on the old construction, if between each turn we do not keep a firm hold of the button, we may work all day without permanently moving the bands, as the roller will return to its old position on
45 being let go. This we presume will be verified by experiment upon those in the Patent Office. At any rate it is averred upon oath that such has been our experience, unless a degree of care and labor be expended
50 upon the construction of each, which would raise the price so as to render them unsalable. All these difficulties may be avoided by the use of the spring S S.

The rollers being formed with a groove
55 as shown in Fig. 3 and put in their places with the bands properly attached, a steel wire or ribbon is interwoven with them as shown in the drawings. This wire, sinking into the grooves, effectually prevents the
60 rollers being withdrawn from their places, while the pressure caused by the tendency of the steel wire to assume a straight form produces an amount of friction on the journals of the rollers sufficient to cause them to
65 retain their position when moved.

What I claim as my invention, and desire to secure by Letters Patent, is—

The wire or ribbon s, arranged in the manner and for the purpose substantially
70 as described.

GEO. BYINGTON. [L. s.]

Witnesses:

JOHN PHIN,
J. B. BENNETT.