

(No Model.)

3 Sheets—Sheet 1.

J. W. HAYWARD.
SIGNALING LANTERN.

No. 441,555.

Patented Nov. 25, 1890.

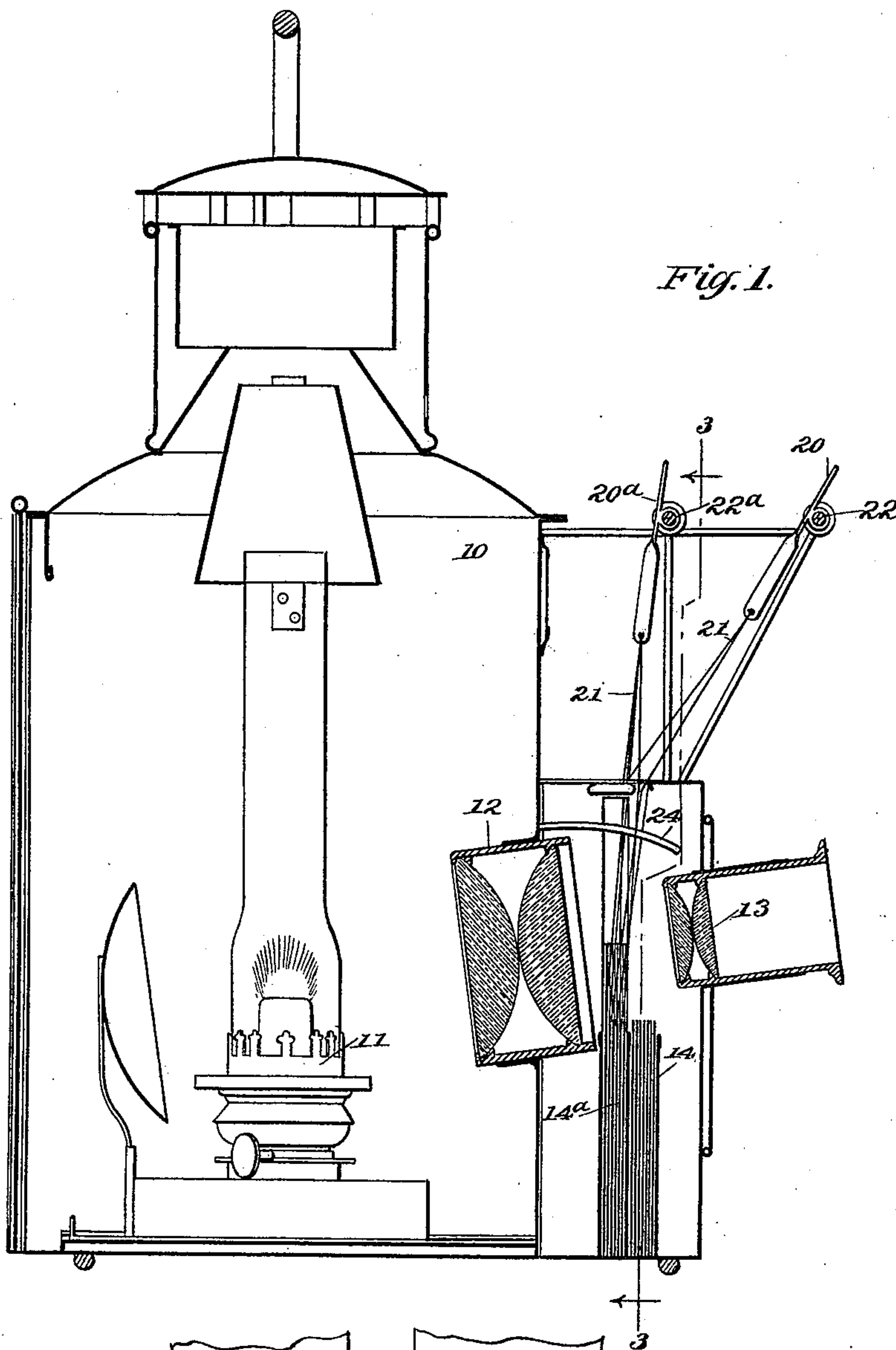
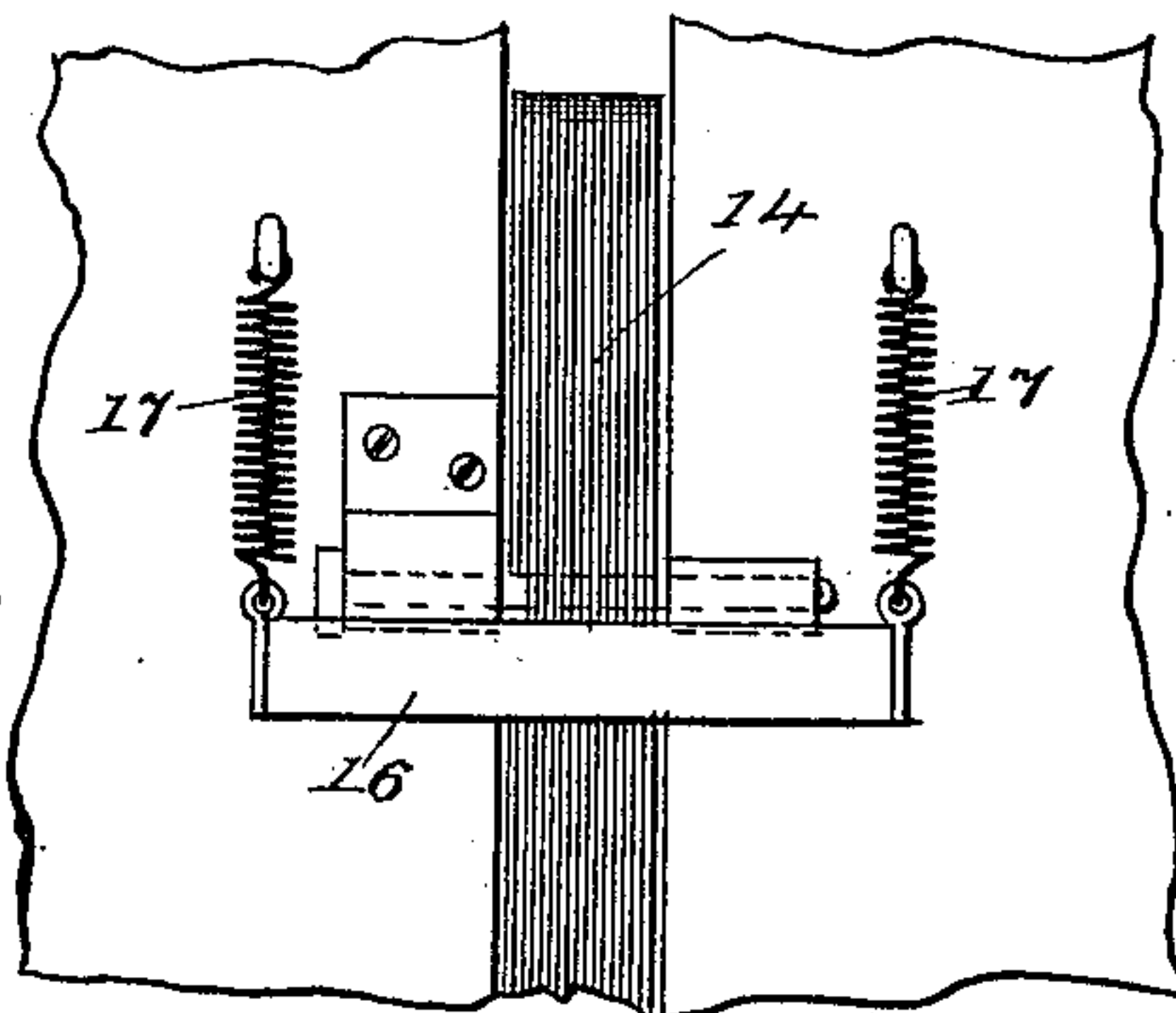


Fig. 4.



WITNESSES:

J. A. Griswold
C. Sedgwick

INVENTOR:

J. W. Hayward
BY *Munn & Co.*
ATTORNEYS.

(No Model.)

3 Sheets—Sheet 2.

J. W. HAYWARD.
SIGNALING LANTERN.

No. 441,555.

Patented Nov. 25, 1890.

Fig. 2.

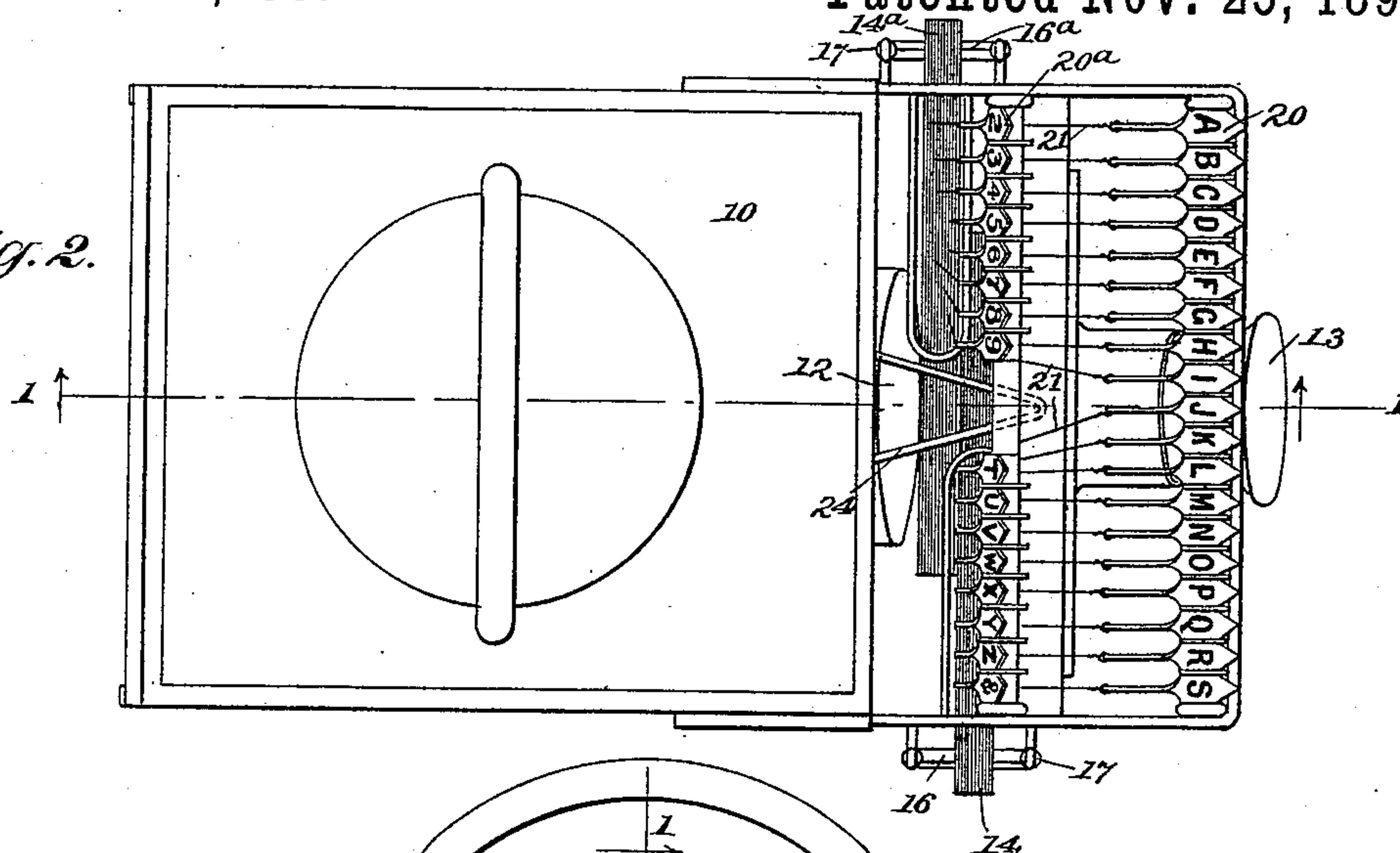
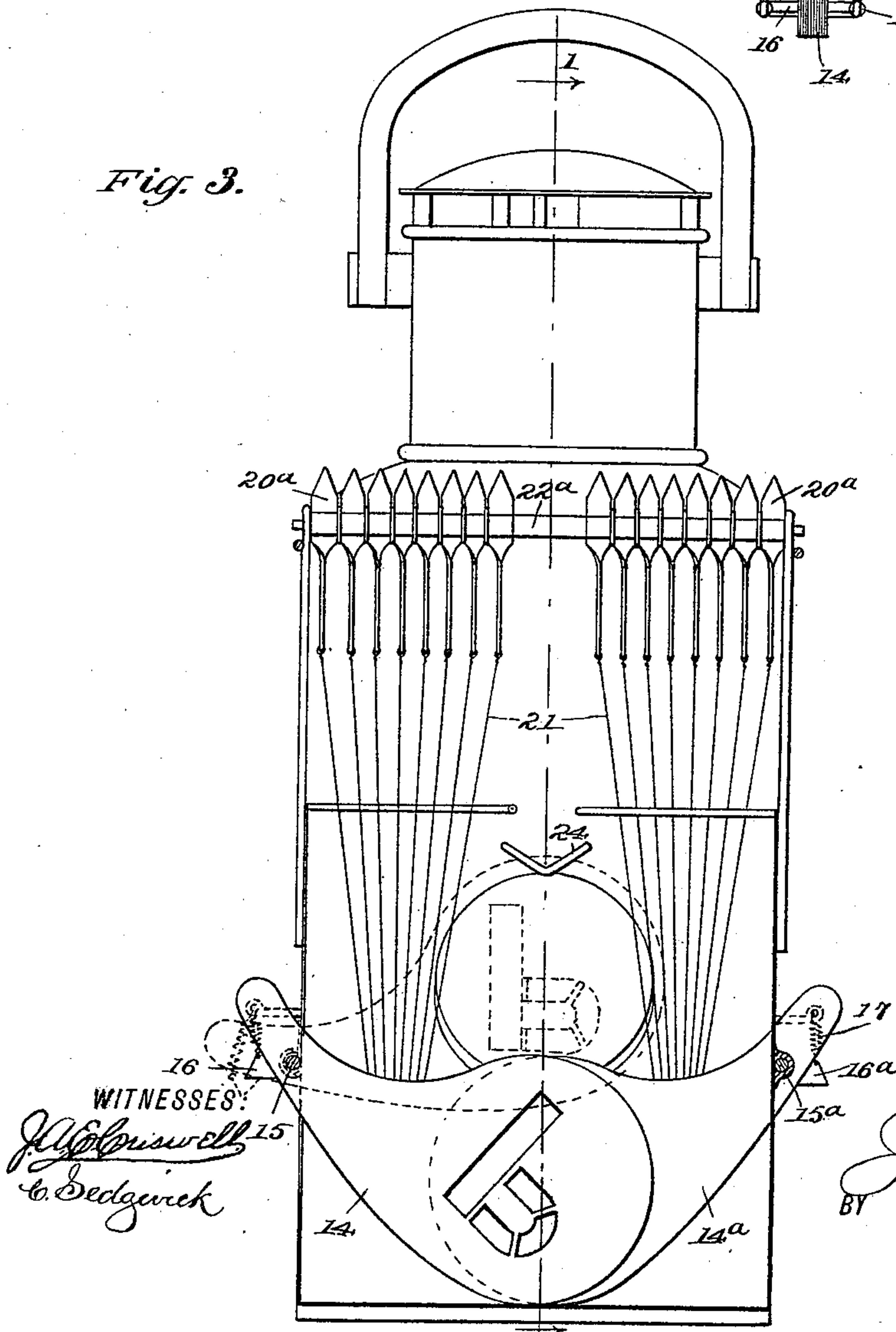


Fig. 3.



WITNESSES:
J. H. Griswold
C. Sedgwick

INVENTOR:
J. W. Hayward
BY *Munn & Co.*
ATTORNEYS.

(No Model.)

3 Sheets—Sheet 3.

J. W. HAYWARD.
SIGNALING LANTERN.

No. 441,555

Patented Nov. 25, 1890.

Fig. 6.

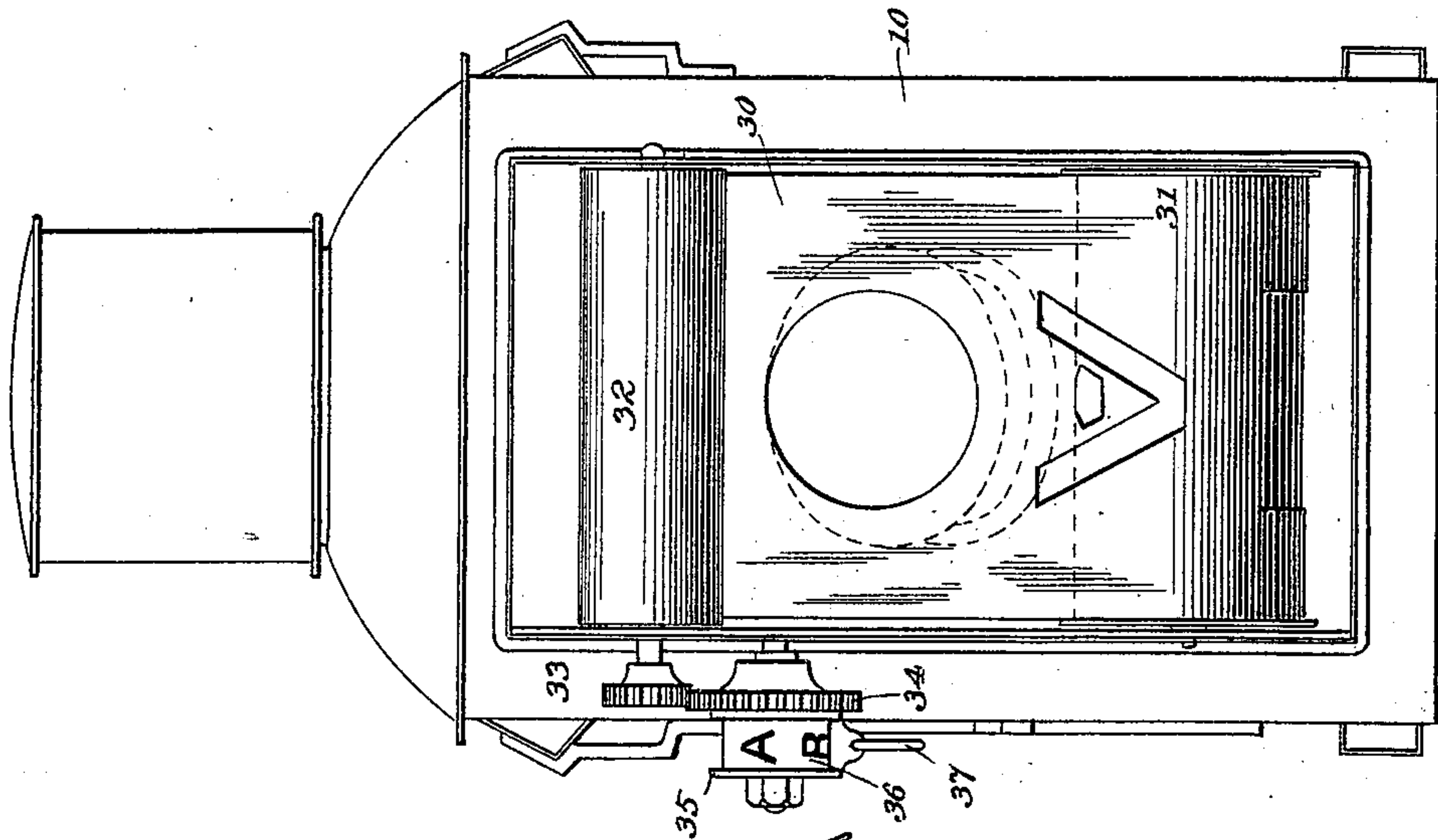
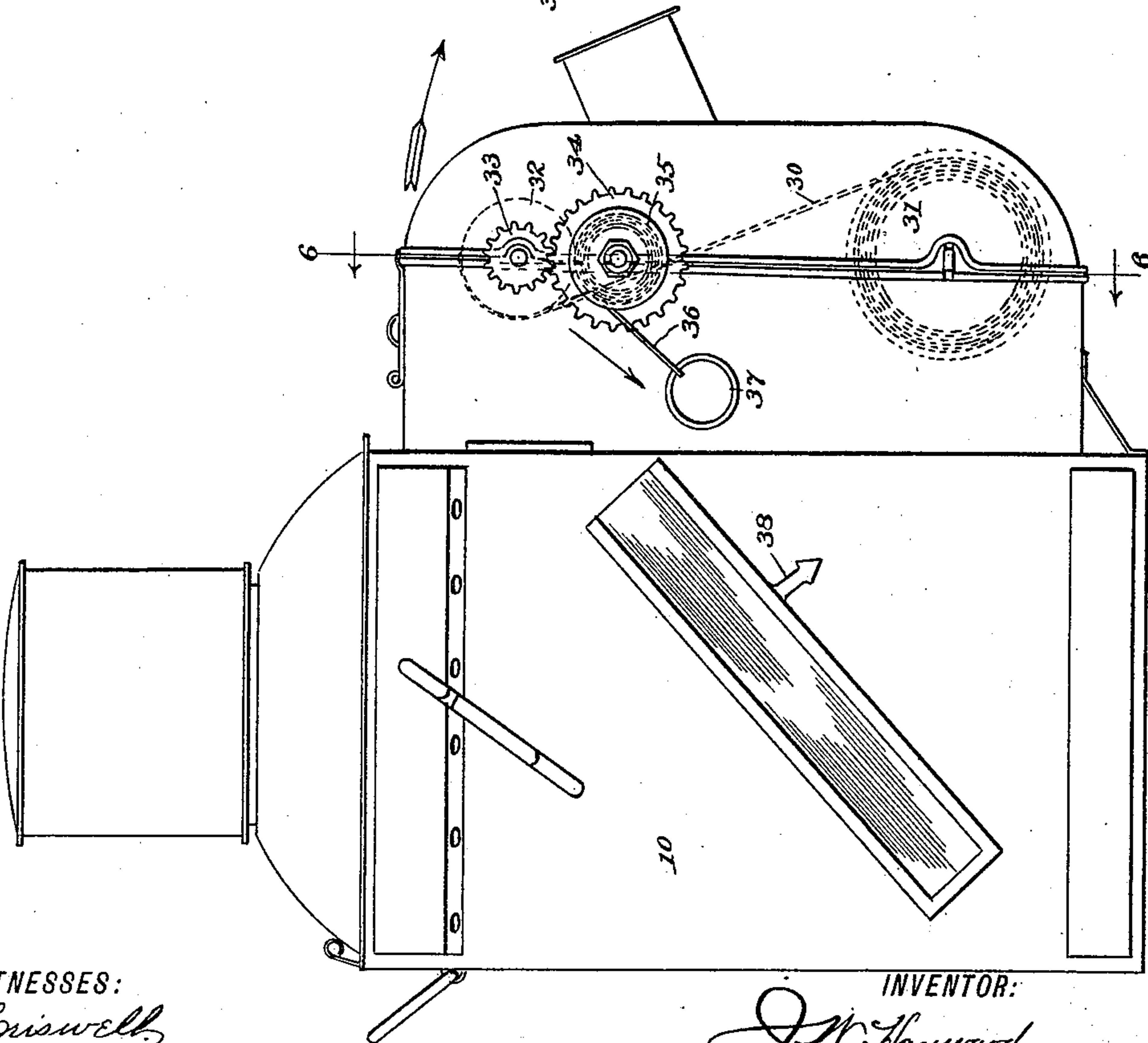


Fig. 5.



WITNESSES:

J. G. Griswell
C. Sedgwick

INVENTOR:

J. W. Hayward
BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN WILLIAM HAYWARD, OF ST. JOHN'S, NEWFOUNDLAND.

SIGNALING-LANTERN.

SPECIFICATION forming part of Letters Patent No. 441,555, dated November 25, 1890.

Application filed September 13, 1889. Serial No. 323,823. (No model.) Patented in Canada October 2, 1889, No. 32,414.

To all whom it may concern:

Be it known that I, JOHN WILLIAM HAYWARD, of St. John's, Newfoundland, have invented a new and Improved Signaling-Lantern, (for which I have obtained a patent in Canada, No. 32,414, bearing date October 2, 1889,) of which the following is a full, clear, and exact description.

This invention relates to signaling appliances, the object of the invention being to provide for the use of the ordinary code at night; and to the end named the invention consists, essentially, of a lantern, stencils arranged in connection therewith, and a means for throwing such stencils into register with a condensing and focusing lens, all as will be hereinafter fully explained, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central sectional elevation of a lantern embodying my invention, the view being taken on the line 1 1 in Fig. 2. Fig. 2 is a plan view of the lantern. Fig. 3 is a front view thereof, in partial section, on line 3 3 of Fig. 1. Fig. 4 is a view of the spring-supported bar by means of which the stencils are returned to their normal position. Fig. 5 is a side view of a modified construction; and Fig. 6 is a front view of such construction, a portion of the case being removed, and the view being given upon a line corresponding with the line 6 6 of Fig. 5.

In carrying out my invention I provide a lantern 10, in which any proper form of lamp, as 11, is employed, and in connection with this lamp I arrange a condensing-lens 12 and a focusing-lens 13.

In the construction illustrated in the first four figures of the drawings I provide series of stencils 14 and 14^a, the individual letters being cut in metallic or other proper disks or plates that are pivotally mounted upon rods 15 and 15^a. The plates in which the stencils are formed extend outward beyond their pivotal supports, such outwardly-extending ends bearing upon bars 16 and 16^a, that are supported by springs 17. In connection with the stencils I arrange keys 20 and 20^a, the keys being connected with the stencils 14 and 14^a,

this connection being established by means of wires 21. Each of the keys carries a letter or number corresponding with the stencil to which the key is connected.

Any proper arrangement may be provided for the support of the keys 20 and 20^a; but in practice I prefer to mount such keys upon rods 22 and 22^a, the rods in turn being supported by a proper frame-work in advance of the lantern-body.

In operation the stencils are moved from the position in which they are shown in Fig. 3 to the position indicated by dotted lines in said figure, this movement being brought about by depressing the key connected to the particular letter which it is desired to elevate, the upward movement of the stencil-plates being limited by a stop-arm 24. The stencils having been brought to the position indicated by dotted lines in Fig. 3, are projected upon a sail of the vessel, upon the funnel, or upon any proper surface. It will of course be understood that the lantern could be employed to signal under the terms of the International code, or that any other code might be employed.

In Figs. 5 and 6 I illustrate a construction wherein, instead of employing independent plates for each letter, I form the stencil in an endless band or belt 30, that is normally wound upon a spring-actuated drum 31, the belt passing upward from said drum 31 to a roller 32, that is provided with a gear 33, and in connection with the gear 33 I arrange a gear 34, that is studded to the side of the lantern-body and rigidly connected to a drum 35, upon which there is wound a strip 36. This strip 36 bears characters similar to those cut in the band or web 30, and to the end of the strip 36 I connect a ring 37, so that the strip may be drawn outward in the direction of the arrow, shown in connection therewith. In proper position I arrange a pointer 38, and in signaling the strip 36 is drawn down until the character which it is desired to project upon the screen is in register with such pointer, the connection between the several parts of the apparatus being such that when the character upon the strip 36 registers with the pointer 38 the particular character of the stencil-web 30 which it is desired to project will be in register with the lantern-lenses.

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

- 5 1. The combination, with a lantern provided with condensing and focusing lenses, of a series of independent stencil-plates, and means for moving the said plates independently between the lenses, substantially as described.
- 10 2. The combination, with a lantern provided with condensing and focusing lenses, of a series of pivoted and spring-pressed stencil-plates, and means for throwing the said plates between the lenses, substantially as described.
- 15 3. The combination, with a lantern provided with condensing and focusing lenses, of stencil-plates, keys, and connections between the keys and the plates, substantially as described.
- 20 4. The combination, with a lantern provided with condensing and focusing lenses, of stencil-plates, springs arranged in connection

with said plates, operating-keys, and connections between the keys and the plates, substantially as described.

- 5 5. The combination, with a lantern provided with condensing and focusing lenses, of pivotally mounted stencil-plates, spring-supported bars against which the extending ends of the plates bear, operating-keys, and connections between the keys and the plates, substantially as described. 25

- 30 6. The combination, with a lantern provided with condensing and focusing lenses, of stencil-plates, a stencil-plate-operating mechanism, and a stop arranged above the plates, substantially as described.

JOHN WILLIAM HAYWARD.

Witnesses:

EDWARD KENT, Jr.,
C. SEDGWICK.

24

27