

C. V. BOUGHTON.
SIGNAL TELEGRAPH.

No. 482,780.

Patented Sept. 20, 1892.

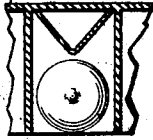


Fig. 6.

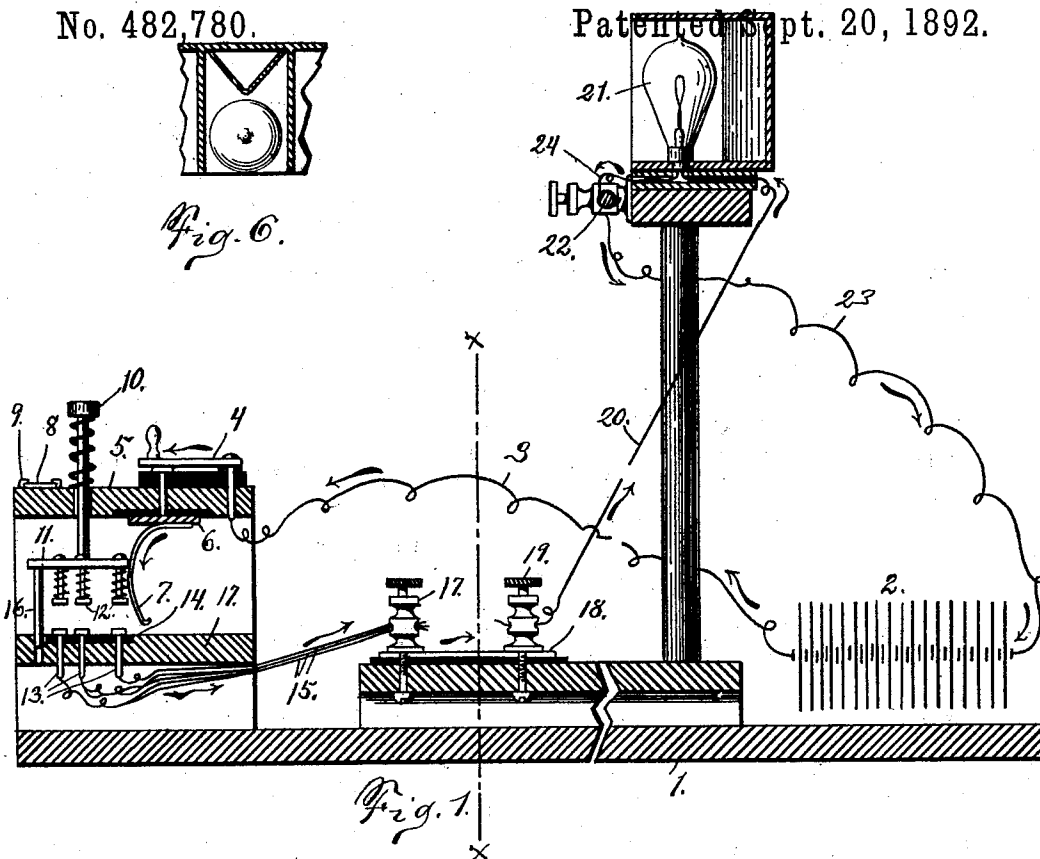


Fig. 1.

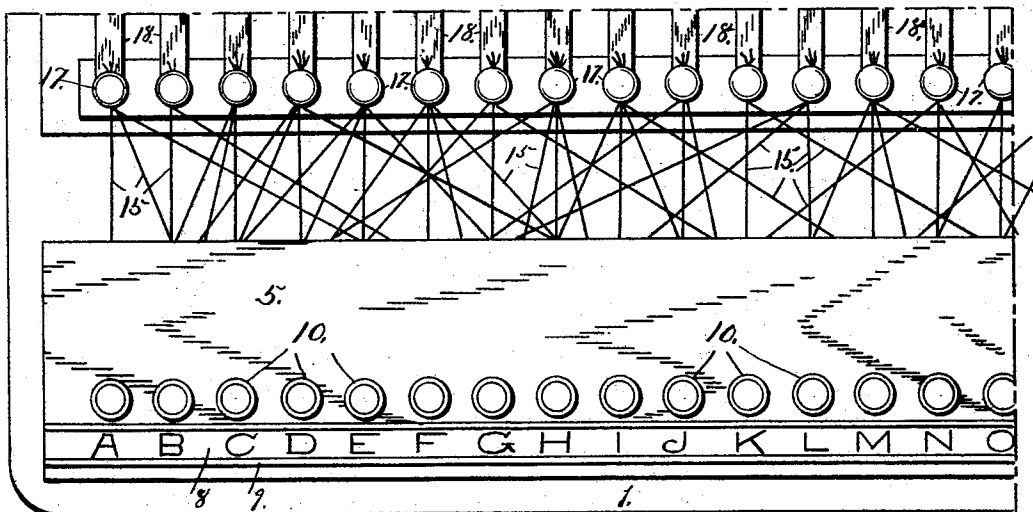


Fig. 2.

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(No Model.)

3 Sheets—Sheet. 2.

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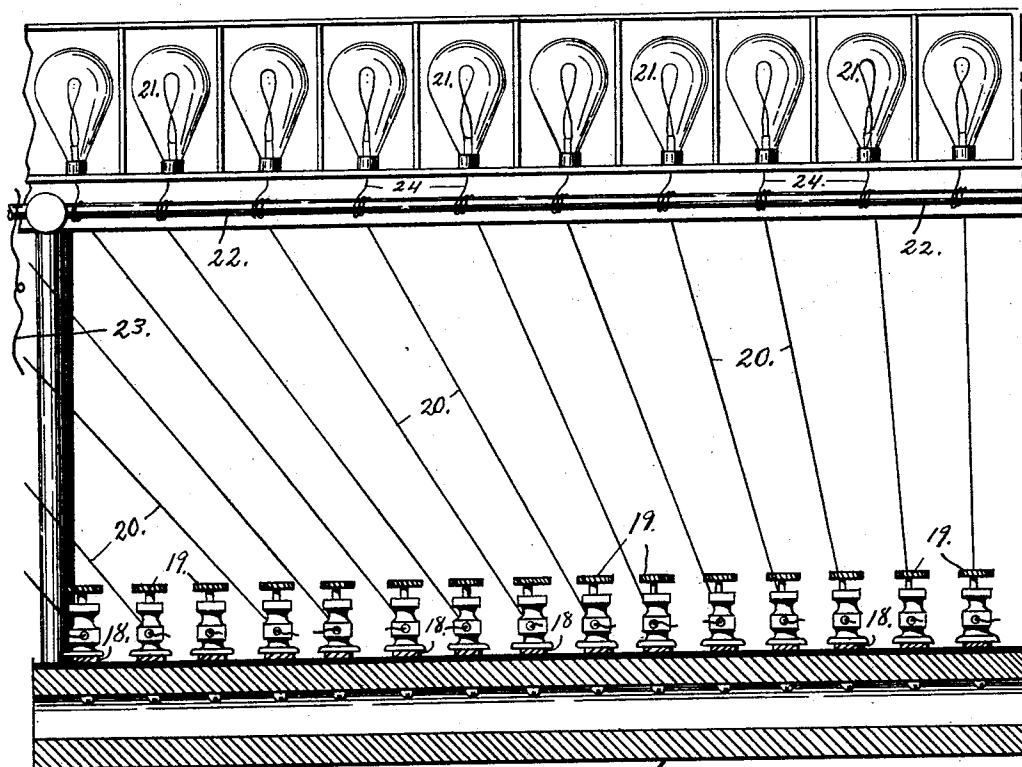


Fig. 3.

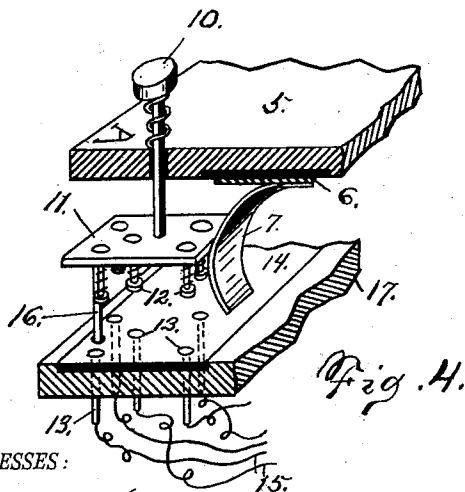


Fig. 4.

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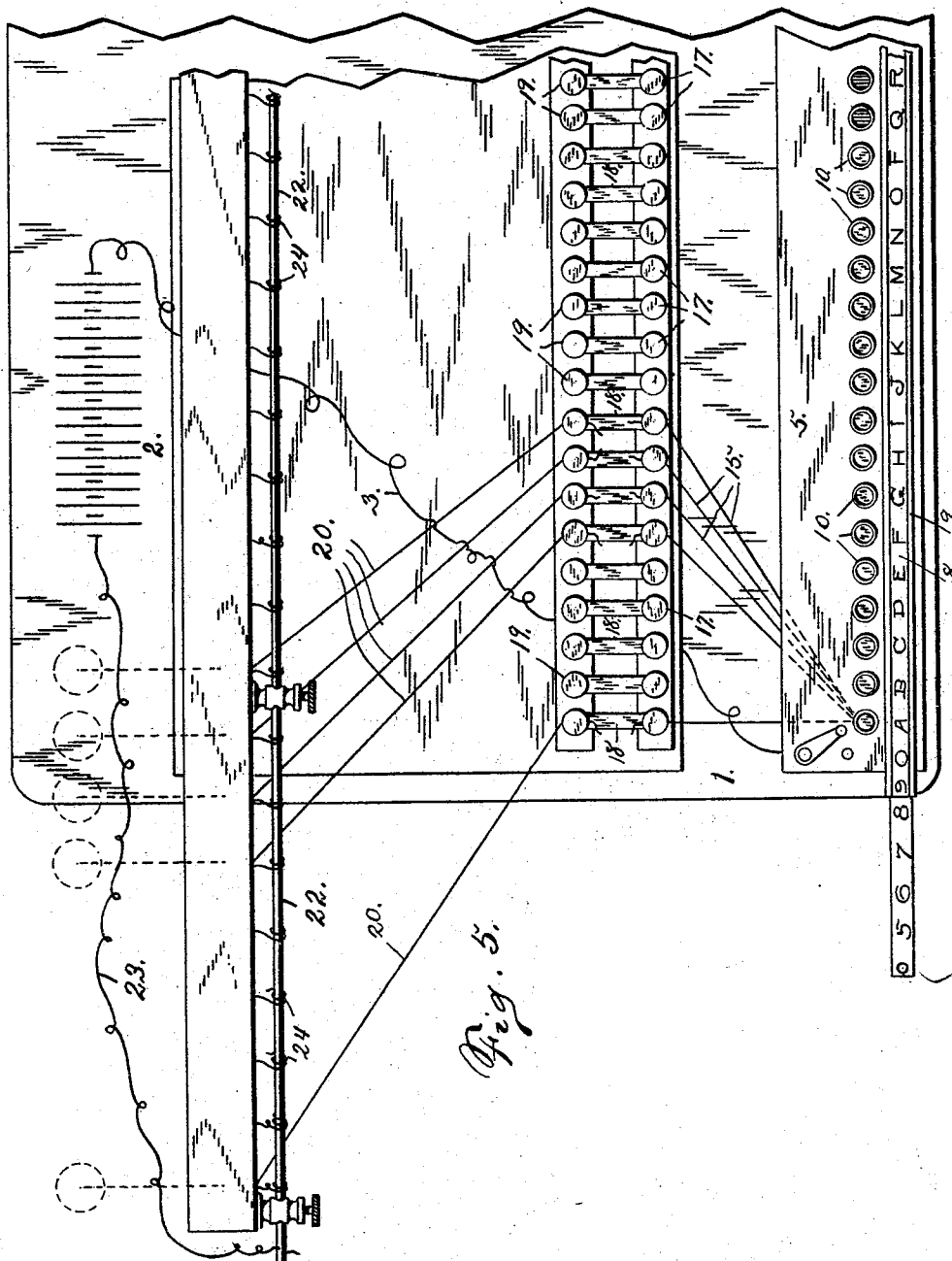
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UNITED STATES PATENT OFFICE.

CLAUDIUS V. BOUGHTON, OF BUFFALO, NEW YORK.

SIGNAL-TELEGRAPH.

SPECIFICATION forming part of Letters Patent No. 482,780, dated September 20, 1892.

Application filed July 22, 1891. Serial No. 400,326. (No model.)

To all whom it may concern:

Be it known that I, CLAUDIUS V. BOUGHTON, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Signal-Telegraphs; 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in electric telegraphy for marine purposes, and more particularly to that class of marine telegraphy in which flash-lights are employed for transmitting messages.

Its object is to transmit by sight any message desired similar to the transmission of messages over wire by printing. This is accomplished by the relative position of the lights to each other, different combinations of light being connected to the circuit to represent the different figures, letters, or characters.

It consists of a series of incandescent lights preferably arranged upon a horizontal line, each light being connected by wire to a separate post, and each post being connected to a second post, a keyboard having separate keys for each figure or character to be employed, and each key having connecting-pins for closing the circuit with a particular combination of wires leading to different second posts, and through which the circuit passes illuminating the combination of lamps assigned to the character.

My invention further consists of other details of its construction, all of which I will now proceed to definitely describe and claim.

In the drawings, Figure 1 is a cross-section of my improved device. Fig. 2 is a partial top plan view of that part of my improvement shown to the left of the line X X of Fig. 1. Fig. 3 is a front elevation of that part of my improvement shown to the right of the line X X of Fig. 1. Fig. 4 is a detail view of one of the keys, showing the mode of closing the circuit with the wires leading to the lamps. Fig. 5 is a top plan detail view of my improvement, showing only the connections for

displaying the letter A; and Fig. 6 is a top plan view of one of the signal-lamps.

Referring to the drawings, 1 is the bed-plate upon which I have arranged my improved signal-telegraph. 2 are the batteries placed at the rear of said bed-plate for generating the electricity. This, however, may be accomplished in any well-known way. Leading from the batteries 2 is the positive wire 3, which is connected to the switch 4, arranged on the keyboard 5. This switch connects the positive wire 3 to a metallic band or plate 6, arranged on the under side of the keyboard 5, and from which plate a series of short springs 7 depend.

8 is the index-plate, which is arranged to slide in grooves 9, as seen in Fig. 6, by which means the index may be made to read in several different ciphers.

10 are the keys, which are arranged upon the keyboard on a line with the letters on the index-plate. These keys are constructed as shown in detail in Fig. 4, and this particular key is arranged to connect the positive wire with five wires leading to the signal-lamps.

The connection is made by the manipulator pressing down the spring-pressed key 10, which has secured to its lower end the plate 11 in which are arranged the small spring-pressed pins 12. These pins 12 rest directly over rigid pins 13, which are embedded in a non-conducting material 14 and have secured to their lower ends the wires 15. It will be seen that the spring-pressed pins 12, by reason of their vertical play, will always insure a perfect contact with the rigid pins 13, although their lower ends may not be on a perfect horizontal plane with each other, and by reason of the guide-pins 16, rigidly secured to the plates 11 and passing down into the board 17, lateral play of the pins 12 is also avoided, thus insuring a perfect contact and likewise a sharp unintermittent light to each lamp connected to the circuit. The plates 11, which are rigidly secured to the keys, are always connected to the positive wires by the spring-plates 7, which act against their edges, as seen in Fig. 4.

The wires 15, which are secured to the lower ends of the pins 13, lead to the posts

17, as seen in Figs. 1, 2, and 5. From these posts 17 the current is carried through the short metallic plates 18 to the posts 19, to which are secured the wires 20, leading to the incandescent lamps 21, and after passing through the carbon filaments of the lamps the current returns to the batteries 2, through the short wires 24, connected to the rod 22, which rod is connected to the batteries by the return-wire 23.

8 is the index-plate upon which are arranged the different figures and characters which may be transmitted to the lamps, the letters and figures being on a line with the keys 10. When it is desired to telegraph in cipher, the operator has but to move the plate 8 to the right or left thereby changing the index-plate to a cipher-key, and the person receiving the message having been made aware of the cipher employed can readily read same by placing his index-plate in a similar position.

The lamps are arranged in a horizontal line, as shown in the drawings, a sufficient number of lamps being placed in a row to represent any single number or letter; or a sufficient number of lamps might be employed to show a succession of words or numbers, each different character being formed by a different combination of lamps, representing dots and dashes with spaces between them, a dot being indicated by a single lamp, a dash by four or more consecutive lamps being spaced by four or more intervening lamps which are not illuminated, as seen in Fig. 6, in representing the letter A.

B is represented by illuminating four or more consecutive lamps, omitting four or more, illuminating one, omitting four or more,

illuminating one, omitting four or more, illuminating one, representing the letter as follows: * * * * - - - - * - - - - * - - - - *, the stars representing the illuminated lamps and the hyphens the unilluminated lamps. * - - - - * - - - - * represents C, * * * * - - - - * - - - - * representing D, &c.

I claim—

1. A signal-telegraph consisting of a number of electric lights arranged in a continuous line, a number of spring-pressed keys arranged upon a board and representing the letters of the alphabet, each key opening or closing a circuit, which includes the necessary lights to form the dashes and dots of the Morse system called for by the letter upon the key in operation, all arranged and operating substantially as and for the purpose stated.

2. The herein described signal-telegraph, consisting of the keyboard 5, spring-pressed keys 10, movable index-plate 8, one or more spring-pressed pins 12, secured to each key for connecting the positive wire 3, leading from the battery 2, with one or more rigid pins to which return-wires are secured, and after passing through certain combinations of electric lamps are combined into a single return-current leading to the battery from which the positive wire is fed, all arranged and operating substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLAUDIUS V. BOUGHTON.

Witnesses:

C. C. DE SOMES,
W. T. MILLER.