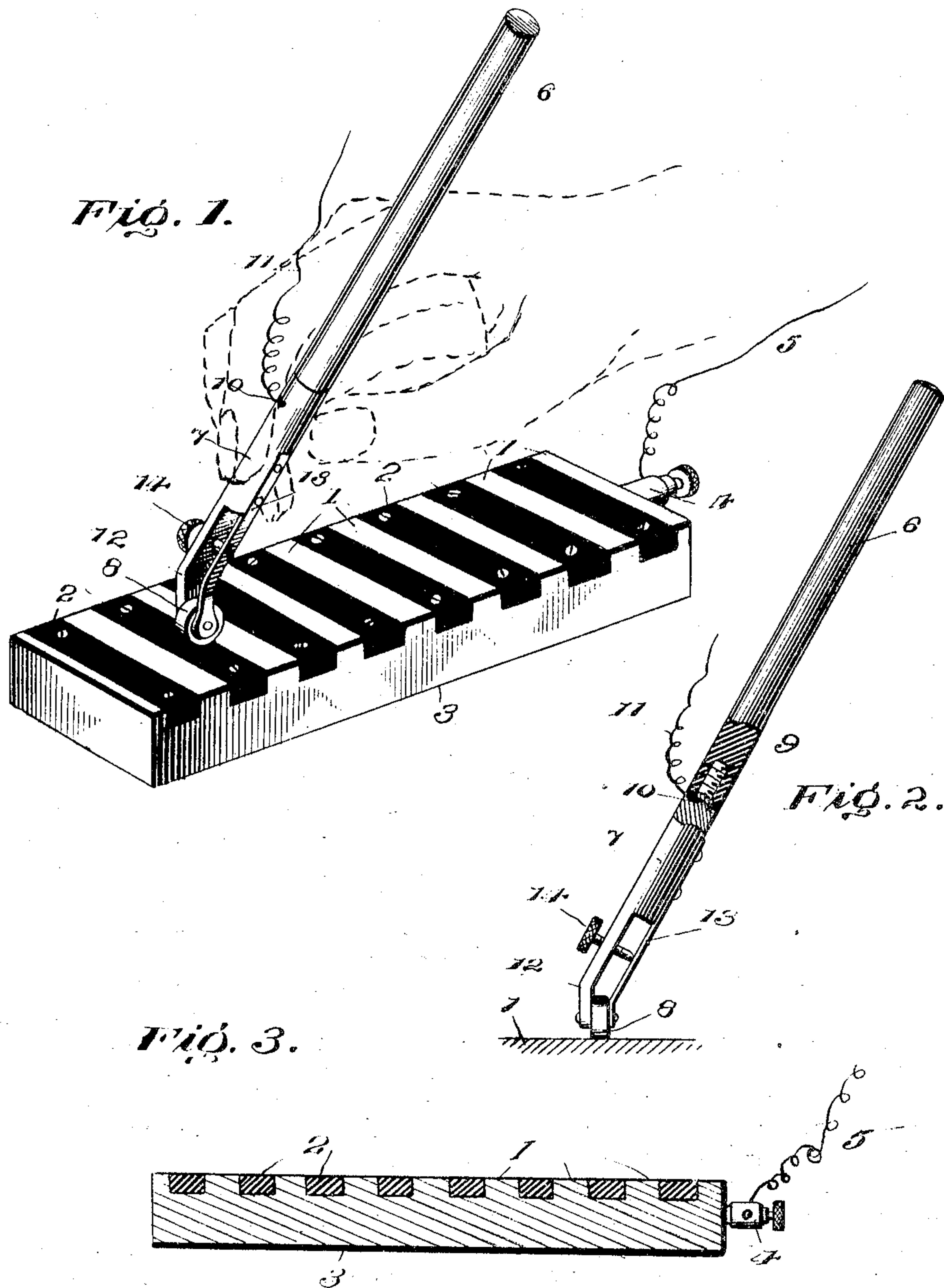


No. 770,792.

PATENTED SEPT. 27, 1904.

J. BEARD.  
MEANS FOR TELEGRAPHING.  
APPLICATION FILED APR. 27, 1904.

NO MODEL.



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN BEARD, OF LIVINGSTON, MONTANA.

## MEANS FOR TELEGRAPHING.

SPECIFICATION forming part of Letters Patent No. 770,792, dated September 27, 1904.

Application filed April 27, 1904. Serial No. 205,191. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BEARD, a citizen of the United States, residing at Livingston, in the county of Park and State of Montana, have invented certain new and useful Improvements in Means for Telegraphing, of which the following is a specification.

This invention has relation to means for transmitting messages by the Morse system, the purpose being to obviate the use of the usual key, which is open to the objection of producing what is known as "operator's paralysis" and not infrequently preventing the interruption of the current by sparking between the points.

In accordance with this invention a bed-piece is provided with a series of electrically-insulated contacts and constitutes one terminal of the circuit, and a stylus forms the other terminal and is adapted to be manipulated by hand to be passed over the bed, so as to produce the dots, dashes, and spaces of the characters of the Morse system.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the transmitting means. Fig. 2 is a detail view of the stylus, a portion being broken away to show the preferred means of connecting the wire or electric conductor thereto. Fig. 3 is a longitudinal section of the base-piece, showing the manner of connecting the contact-pieces in series.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The salient feature of the invention is a series of electric contacts 1 in electrical connection, but electrically insulated at the surface, whereby the passing of the stylus thereover

will produce a series of electric impulses in the line corresponding to the dots of the well-known Morse alphabet. In order that the electric contacts may not offer any obstruction to the stylus, their surfaces, as well as the surface of the intervening insulation 2, is in the same plane. While the electric contacts are electrically insulated at the surface, it is important that they be electrically connected, and any means may be devised for attaining these ends. As shown, the body of the base 3 is preferably of metal, spaces being provided in the surface to form seats, in which plates 2, corresponding to the electric insulating material, are fitted, the surface of the plates 2 being flush with the surface of the base, so that the stylus may have unobstructed movement over the base when transmitting a message. The plates 2 may be of hard rubber or any insulating material commonly employed in electrical apparatus. A binding-post 4 is connected to the base 3, and the line-wire 5 is coupled thereto in the usual manner.

The stylus comprises a handle 6, of any suitable insulating material, a metal end 7, coupled to the handle, and a rolling contact 8. The handle 6 has a screw 9 let into its inner end and threaded into an opening in the coupling end of the part 7. A transverse opening 10 is formed in the metal end 7 to receive the wire 11, which is held in place by means of the screw 9. It will thus be understood that the screw 9 performs the dual office of connecting the parts 6 and 7, as well as securing the conducting-wire 11. The end portion of the metal part 7 is deflected or bent, as shown at 12, to enable the stylus to be inclined when held in the hand and the bent end portion 12 to occupy a vertical position, whereby the face of the rolling contact 8 comes square upon the base, so as to insure positive electrical connection between it and the contacts 1. The outer portion of the metal end 7 is cut away upon one side, and a spring 13 is arranged opposite to the cut-away portion and is connected at one end to the part 7 and is apertured near its opposite end to receive the journal of the rolling contact 8. The terminal portion of the spring 13 is bent to correspond to the bent portion 12 of the metal end



7, and the rolling contact 8 is held between the terminal portions of the spring 13 and the part 7 and is prevented from turning too freely by means of the pressure exerted thereon through the spring 13, which holds the said contact 8 firmly against the portion 12. This pressure may be regulated by a set-screw 14, threaded into an opening in the cut-away portion of the metal end 7. The provision of the spring 13 insures the maintenance of electrical connection between the rolling contact and the metal end 7 at all times, which is essential to the operativeness of the appliance.

The base is electrically connected either to one pole of the battery or to the line-wire, and the stylus is electrically connected to the other part, as well known in the art of connecting the usual telegraph-key to corresponding parts. The base is supported upon a table, stand, or the like, as may be found most convenient, and the stylus is held in the hand of the operator in substantially the same manner as a pencil or pen. To produce a consecutive series of electrical impulses corresponding to the dots of the Morse alphabet, the rolling contact of the stylus is passed over the base, so as to make uniform connection with the contacts 1. Dashes are produced by delaying the rolling contact upon any one or more of the contacts. Spaces are the result of pausing upon one or more of the insulating-surfaces between the contacts 1. It will be understood that by a proper manipulation of the stylus—that is, sweeping over

the contacts 1 or pausing upon any one of the contacts or the intermediate insulating-surfaces—dots, dashes, and spaces may be produced corresponding to the characters of the Morse alphabet, thereby making it possible to transmit messages by means of a series of electrical impulses in the same manner as by the use of the usual telegraph-key.

Having thus described the invention, what is claimed as new is—

1. In means for transmitting messages telegraphically, a base comprising a series of electric contacts separated by insulating material, a stylus having a metal end, a rolling contact carried by the metal end, and a spring exerting a pressure upon the rolling contact to hold same against the metal end and insure the maintenance of electrical connection.

2. In means for transmitting messages telegraphically, a base comprising a series of electric contacts separated by insulating material, a stylus having a rolling contact, a spring exerting a pressure upon the rolling contact to insure the maintenance of electrical connection, and a set-screw for varying the degree of pressure exerted by the spring upon the rolling contact, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN BEARD. [L. s.]

Witnesses:

ALEX LIVINGSTON,  
W. MCKEE.