G. F. GREEN.

COUPLING FOR TELEGRAPH INSTRUMENTS.

No. 172,994. Patented Feb. 1, 1876.

Fig. 1.

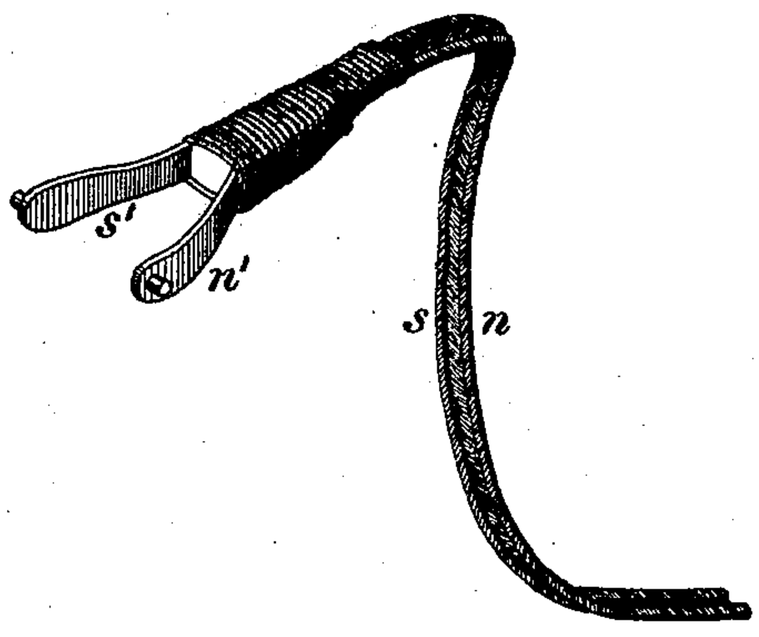


Fig. 2.

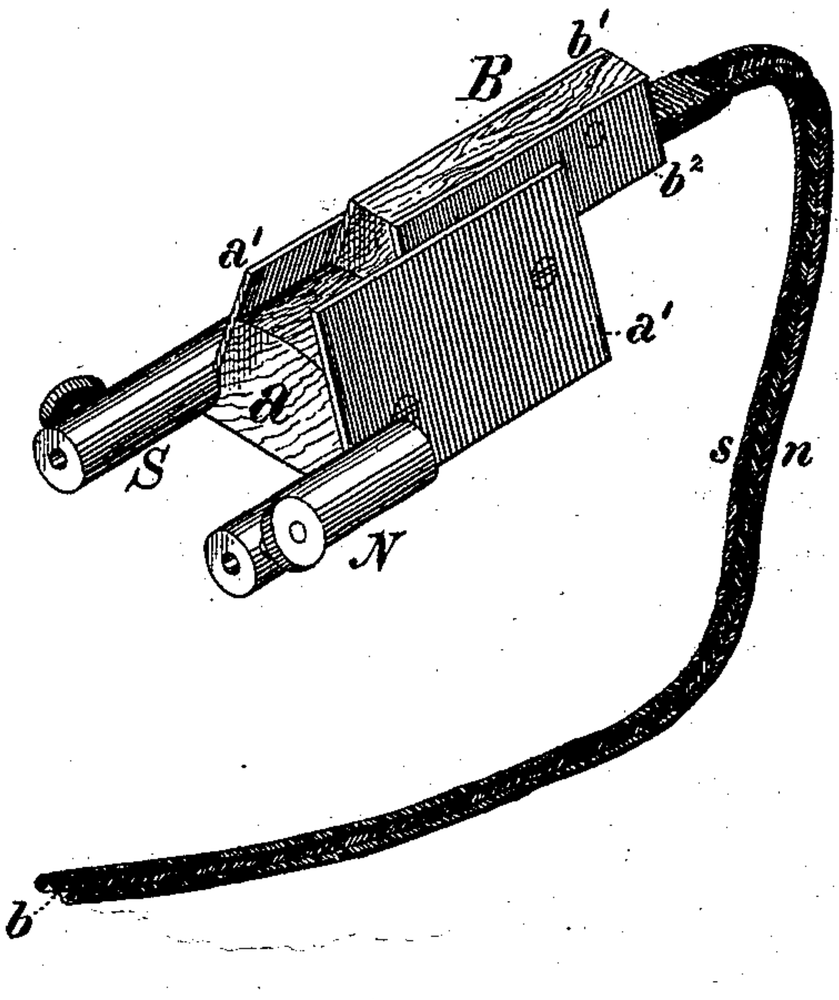
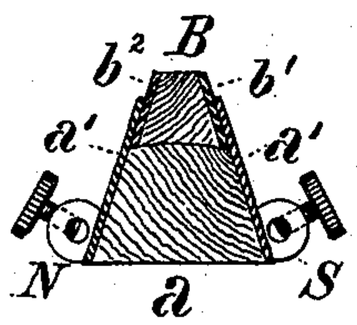


Fig. 3.



Witnesses.

J. Snowden Bell.

Jno. Everding

Inventor.

Geo F. Green

by his Atty

Wm D. Baldwin

UNITED STATES PATENT OFFICE.

GEORGE F. GREEN, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO SAMUEL S. WHITE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COUPLINGS FOR TELEGRAPH INSTRUMENTS.

Specification forming part of Letters Patent No. **172,994,** dated February 1, 1876; application filed August 5, 1873.

CASE H.

To all whom it may concern:

Be it known that I, GEORGE F. GREEN, of Kalamazoo, Michigan, have invented certain new and useful Improvements in Couplings for Telegraphic Instruments, or for other instruments operated by electricity, of which improvements the following is a specification, and the accompanying drawing a representation:

My aim in this device is to unite the wires together in a flexible compound cord, which cord I will designate, for brevity, as the coupling-link between the battery and the instrument, insulating the wires throughout its entire length, at the same time providing for the transmission of the current, and obtaining the advantage not only of handling both wires together, and with all the facility of a single wire, but also of attaching and detaching either or both ends of the link and both of the wires together with greater facility than heretofore attained.

In the accompanying drawing, Figures 1 and 2 show, in perspective, the respective ends of the coupling with cord attached, and Fig. 3 is a transverse section through the coupling-block.

The coupling-block *a* is made of wood, its sides tapering from bottom to top, the bottom and top surfaces being flat. Upon each side of this block a plate of metal, *a'*, is secured, these plates being deeper than the block, the bottom edge of each plate flush with the bottom of the block, and the upper edges of the plates inclining toward each other above the surface of the block, thus forming a trough open at each end. Near the lower corner of one end of each of these plates I attach a binding-post, N S, with a set-screw, in the usual form. The battery-wires are to be secured in these posts as usual. The wires *n s*, which constitute the coupling-link, are separately covered with non-conducting material, and joined together by a cord or web, *b*, of like character, the whole forming a flexible compound cord. At one end of this cord the wires are uncovered for a short distance, and spread apart, so that each of them may be soldered to a metallic plate, b^1 b^2, and between these plates a piece of wood or other non-conducting material, B, is interposed, the plate being fastened upon its respective sides, and thus a block formed having a flat base and top and inclined sides, making a counterpart block to fit closely in the trough of the block *a*, the metallic sides of the trough, with the binding-posts and the wires therein, and the metallic sides of the link-block B, with the wires soldered thereto, forming, when thus connected, a coupling-link with the battery-wires.

At the opposite end of the coupling-link I again uncover and spread apart the wires, attaching to each of them a metallic spring, *n' s'*, having on the outside, at its extremity, a small pin or stud. Between the ends of the wires, and between the springs, I insert a small piece of wood or other non-conducting material, and wrap the whole with thread or similar non-conductor, which serves to insulate the wires and the springs connected therewith, as well as to separate the springs, so that they stand off from each other somewhat more than the distance between the eye attachment on the instrument to which the current is to be transmitted.

The link-block *a* being in position, as described and shown, it will be readily seen that by slightly compressing the springs together, and putting them between the eye attachment and relieving the pressure, the springs will expand, and the studs upon their ends will catch in their eyes, establishing the circuit.

A slight compression of the springs will retract the studs from the eyes, and break the connection.

I claim—

1. The coupling-block *a*, provided with the metallic side plates, substantially as described.

2. Also, the combination, with the block *a* and its metallic side plates, of the binding-posts, substantially as described.

3. Also, the combination of the studded

springs with the compound cord, substantially as described.

4. Also, the combination of the studded springs, compound cord, and metallic plated block B.

5. Also, the combination of the compound cord and the plated block B with the plated block *a*.

In testimony whereof I have hereunto subscribed my name.

GEORGE F. GREEN.

Witnesses:
LEVI TEAL,
WM. E. MORGAN.