

(No Model.)

W. L. HUNT.

TELEGRAPHIC APPARATUS.

No. 270,674.

Patented Jan. 16, 1883.

Fig. 1

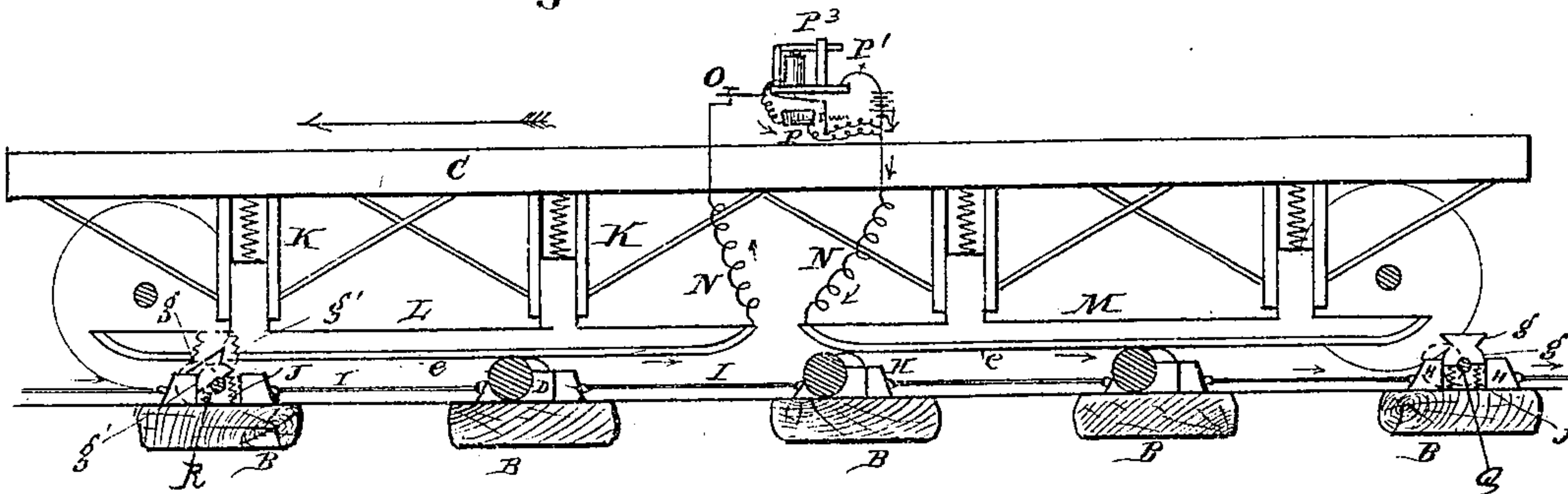


Fig. 2

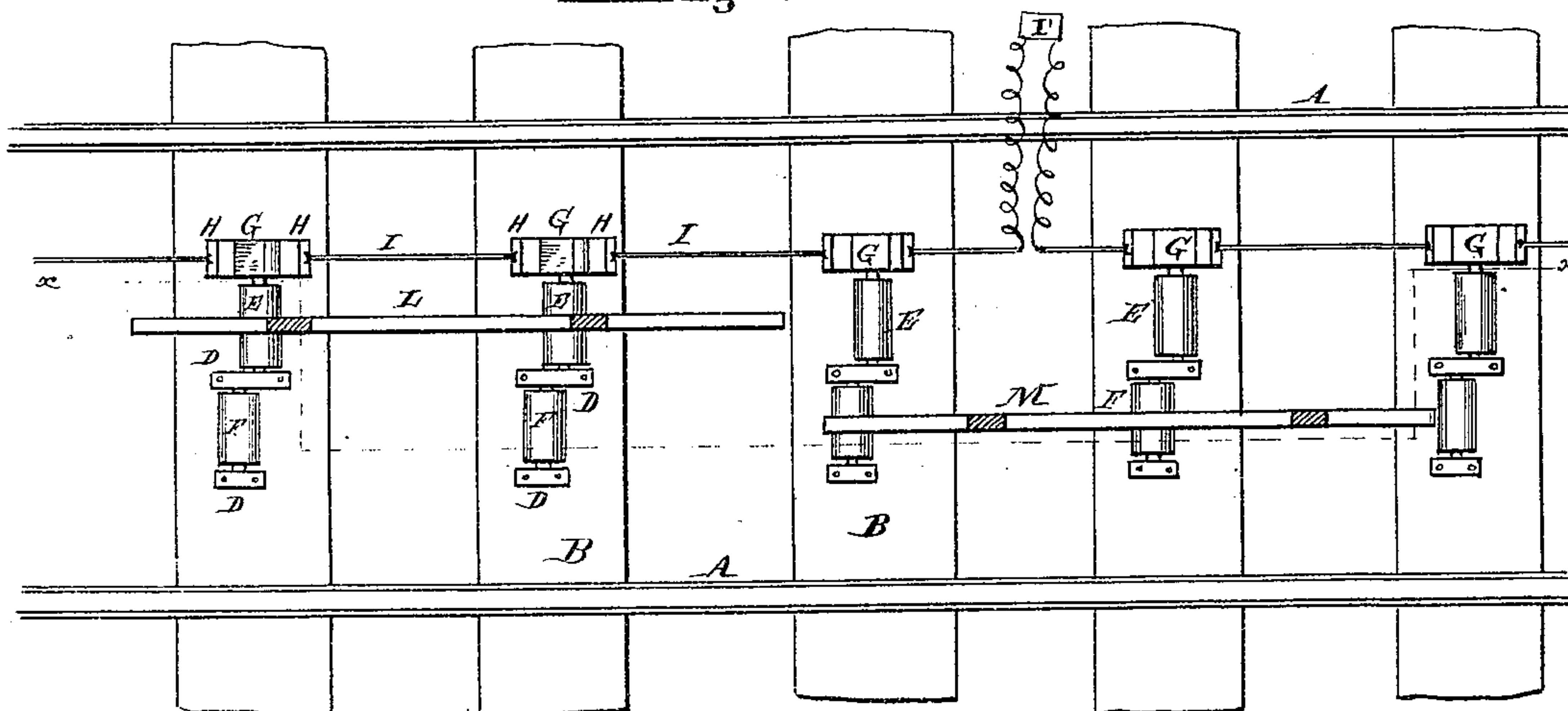


Fig. 3

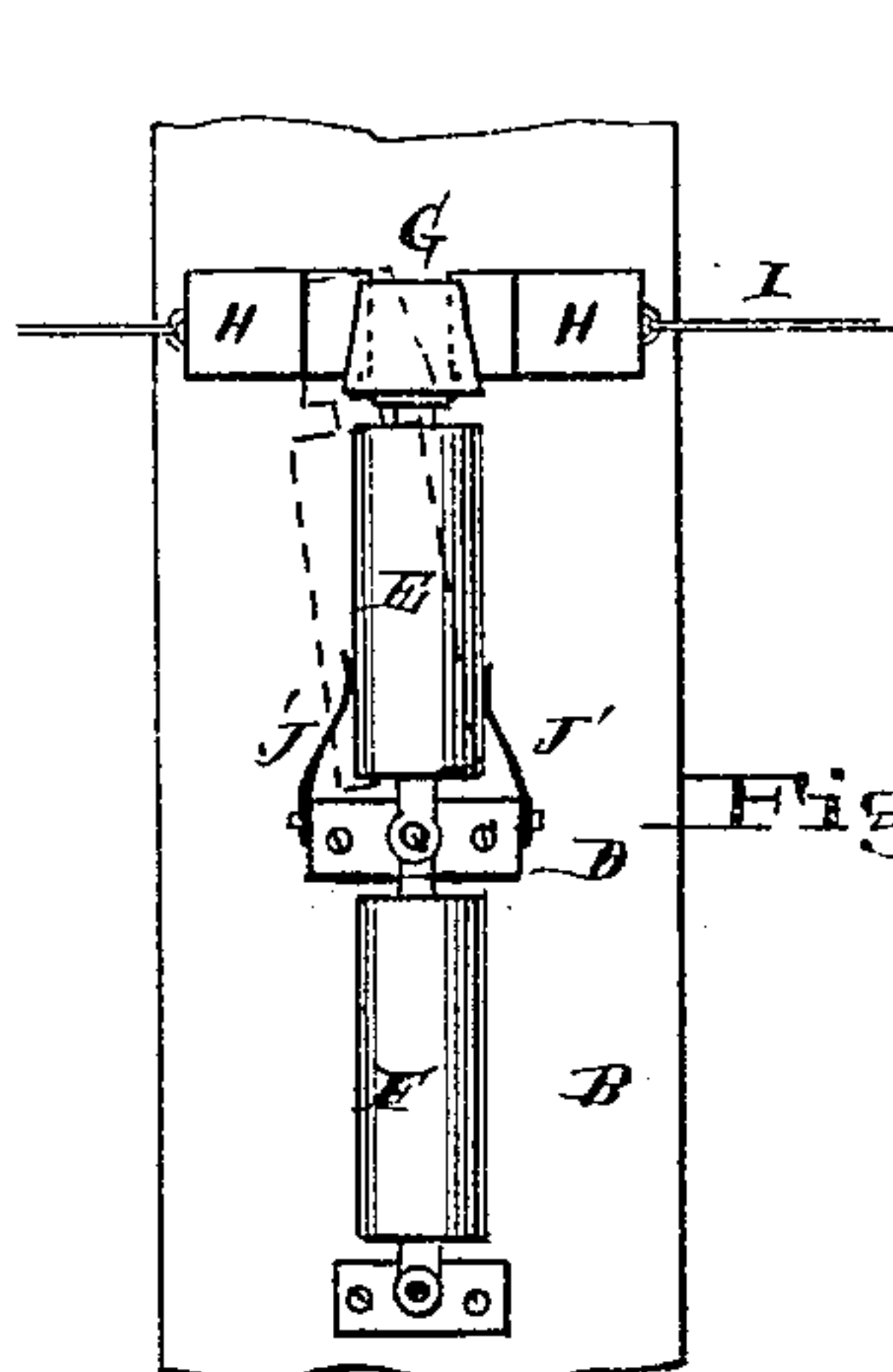
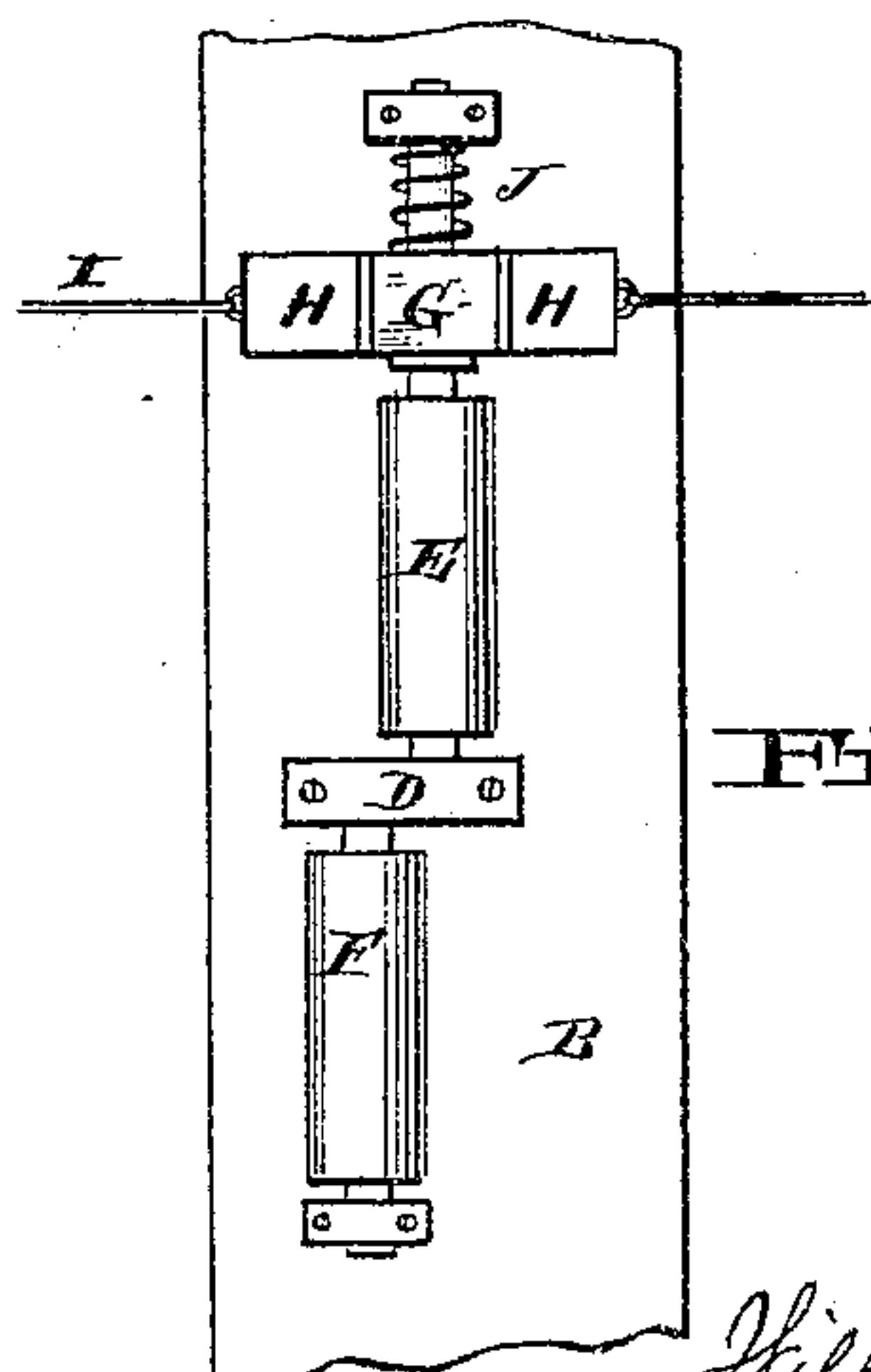


Fig. 4



West

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TELEGRAPHIC APPARATUS.

SPECIFICATION forming part of Letters Patent No. 270,674, dated January 16, 1883.

Application filed September 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. HUNT, of Port Hope, Durham county, Ontario, Canada, have invented an Improvement in Telegraphic Apparatus, of which the following is a specification.

My invention has reference to electric telegraphic apparatus adapted to railways; and it consists in mechanism by which the current may be caused to pass through a railroad-car while in motion, which car is provided with suitable mechanism for receiving and transmitting telegraphic messages, whereby an operator on the train may communicate with any station without arresting the movement of the train, said mechanism being more fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

In the drawings, Figure 1 is a sectional elevation of a railroad and car provided with my improvements. Fig. 2 is a plan of same, and Figs. 3 and 4 show modifications of the main circuit-breaking device which causes the current to pass up into the car, and Fig. 5 is a perspective view of a modification of apparatus by which the same result is attained.

A are the rails, and B the usual ties. C is a car, and may be of any desired construction.

Supported in bearings D on the ties B, and arranged end to end, are metallic rollers E F, which act as electric conductors. The rollers F, which are arranged all on one side, are loose in their bearings, and may be free to revolve, while rollers E carry on one end the key-blocks G, provided with straight contact-faces *g* and curved contact-faces *g'*, the latter working between pole-blocks H and kept in a normal position—i. e., contact with both pole-pieces H—by springs J, which may be located under the said block G, or on the end of same, as shown in Fig. 4. These rollers E F and pole-pieces H may be arranged upon every cross-tie, or as far apart as is found practicable, and the pieces or blocks H are electrically connected together by wires I, through which the electric current flows, and which act as the line-wire. The wires I may be run off into stations, as shown at I', which are provided with telegraphic instruments.

The bottoms of the cars may be provided with spring-supports K for the two contact-

shoes upon the rollers F. These shoes may be made of metal, or wood provided with a metal face, *e*, and they are electrically connected together by wires N, which pass up through the car, and are provided with the necessary telegraphic instruments, as a key, O, and sounder; or the line-circuit may be made to work a relay, P, which controls a local circuit, P', in which is located a sounder, P³.

The operation is as follows: The key-blocks G being in their normal position all along the line, the circuit is completed through wires I, pole-blocks H, and key-blocks G, the latter being as shown at Q. Now, as the car C runs over the track, the shoe L runs upon two or more of the rollers E at the same time, so as to keep at all times contact with one of said rollers, and these rollers E, while in contact with the shoe, are turned, causing the key-block G to be turned, freeing face *g'* from one pole-block H and bringing the other face, *g*, in contact with the other pole-piece H, acting as a stop, as shown at R, thus breaking the line-circuit and causing the electricity to run up the shoe L into the car, and then down wire N into shoe M, and from shoe M to rollers F, thence back through rollers E to line I. The invention is equally adapted to cars running either way.

In place of causing the contact or key block G to turn, it may be made to simply slide from one pole-block to the other when the car is passing over, and when in its normal position the key of said block G rests upon both of the pole-blocks H, as shown in Fig. 3, by means of suitable springs, J', which always returns the key-block to its normal position in contact with both pole-blocks. In this case the inner bearing of the roller E is pivoted.

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

1. A railroad provided with an electric circuit furnished with key-blocks of opposite polarity, arranged in pairs and equidistant, and contact-blocks arranged to shift their positions, so as to break the line-circuit, in combination with a car furnished with telegraphic apparatus and two contact-shoes carried by the moving car, one of which operates to cause the electric current from the line-circuit to flow up through said shoe, through the telegraphic apparatus, and back through the other shoe to

line, substantially as and for the purpose specified.

2. The combination of a railroad with a car provided with telegraphic apparatus, line-wires 5 I, pole-blocks H, located on the track, key-blocks G, or their equivalent, arranged between said pole-blocks and at all times in contact with one or both of said blocks, and means attached to the car to cause said key to break 10 contact with one of said pole-blocks as the car passes over it.

3. The combination of a railroad with a car provided with telegraphic apparatus, line-wires I, pole-blocks H, located between the rails, 15 key-blocks G, or their equivalent, arranged between the pole-blocks, rollers E F in circuit with said key-blocks, and contact-shoes L M, attached to the car.

4. The combination of rails A, ties B, pole-blocks H, located between the rails, line-wires 20 I, key-blocks G, arranged between the pole-blocks, having curved faces g' , and rollers in circuit with said key-blocks, as set forth.

5. The combination of rails A, ties B, pole-blocks H, located between the rails, line-wires 25 I, key-blocks G, arranged between the pole-blocks, rollers E F in circuit with said key-blocks, car C, provided with telegraphic apparatus, and wire N, shoes L M, and springs K, substantially as set forth. 30

In testimony of which invention I hereunto set my hand.

WILLIAM L. HUNT.

Witnesses:

GEO. H. PHELPS,

FRED. ANDREWS.