

(No Model.)

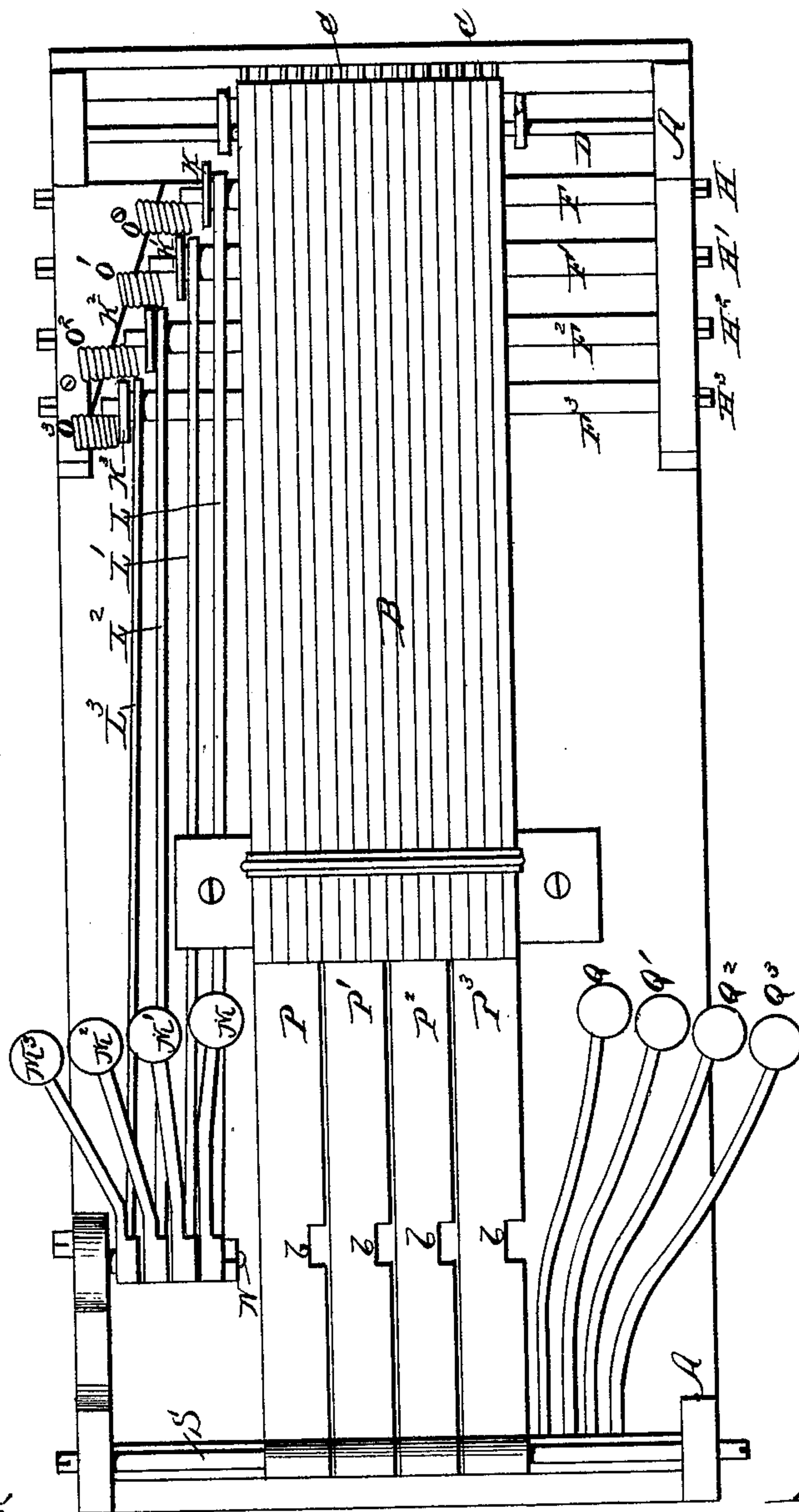
3 Sheets--Sheet 1.

J W. BRECKENRIDGE.
Type Writer.

No. 233,196.

Patented Oct. 12, 1880.

Fig. 1.



Witnesses:
W. C. McArthur
John C. Rogers.

Inventor:
J. W. Breckenridge
per J. H. Alexander
Attorney.

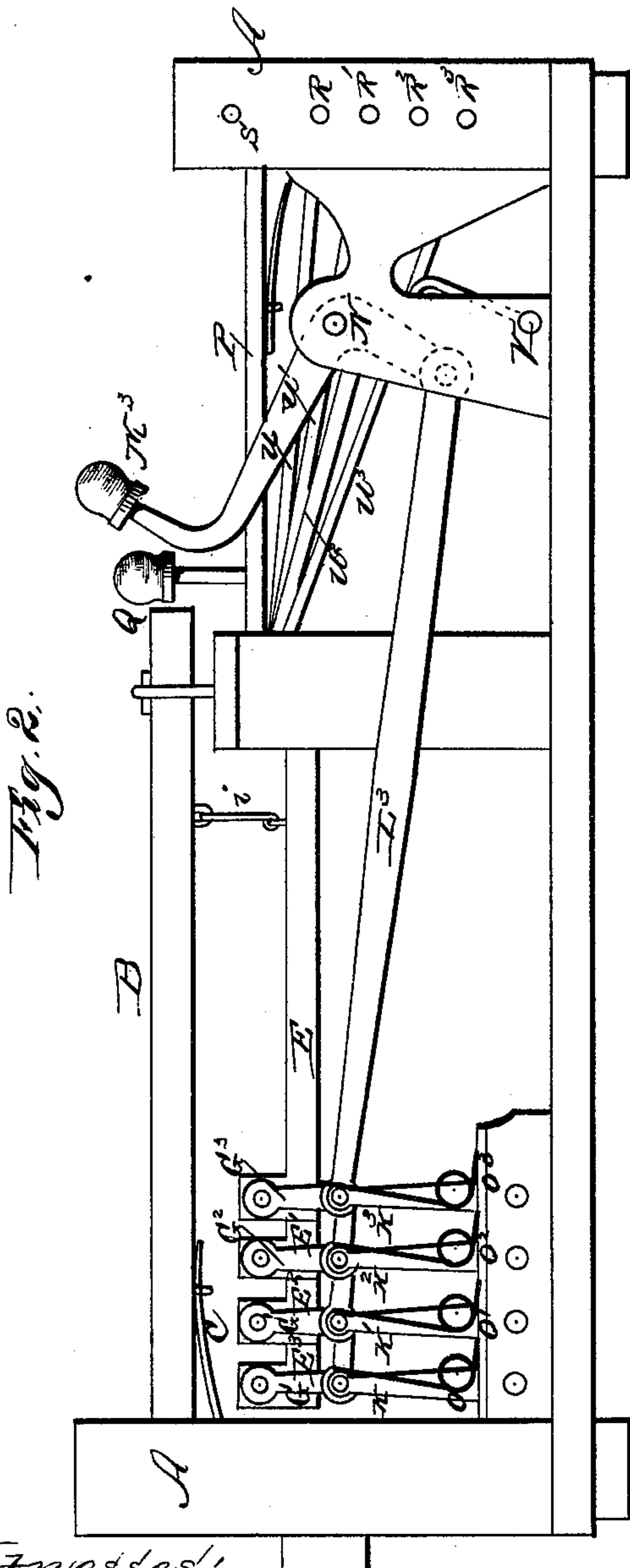
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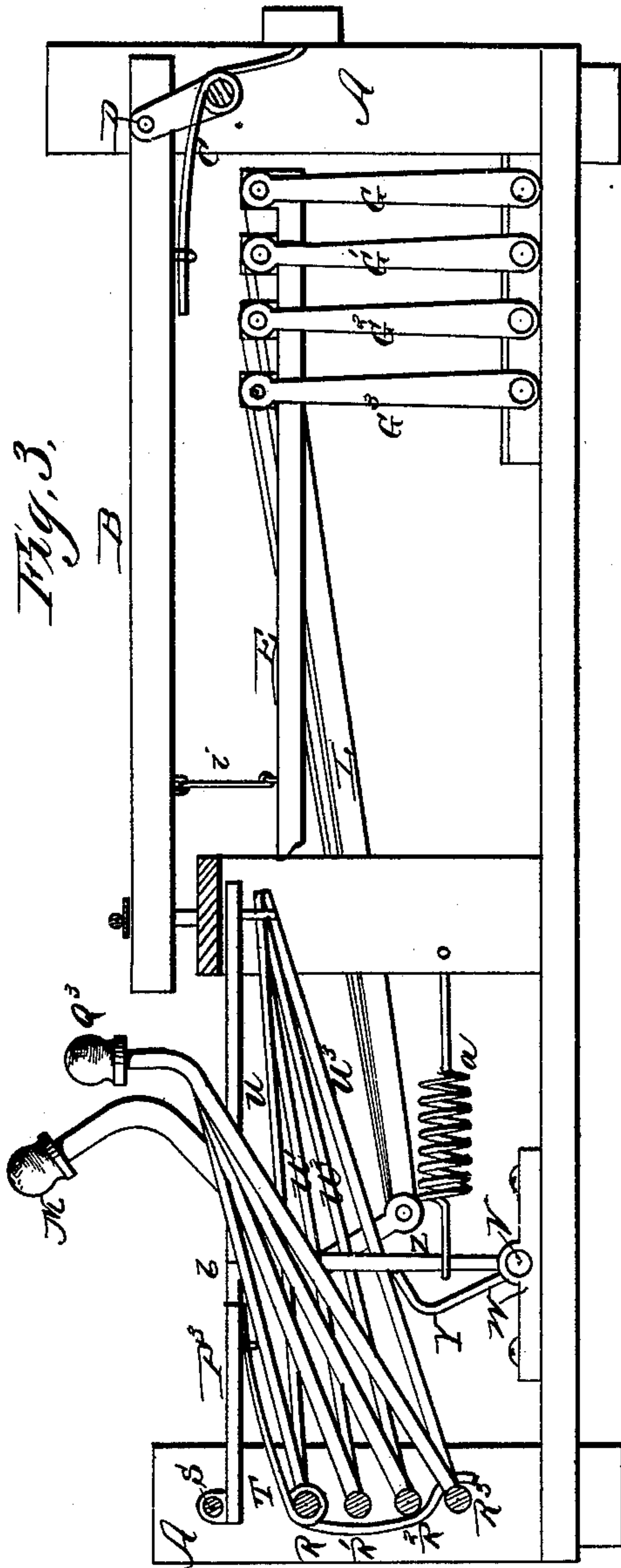
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Witnesses:
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Type Writer.

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Fig. 4.

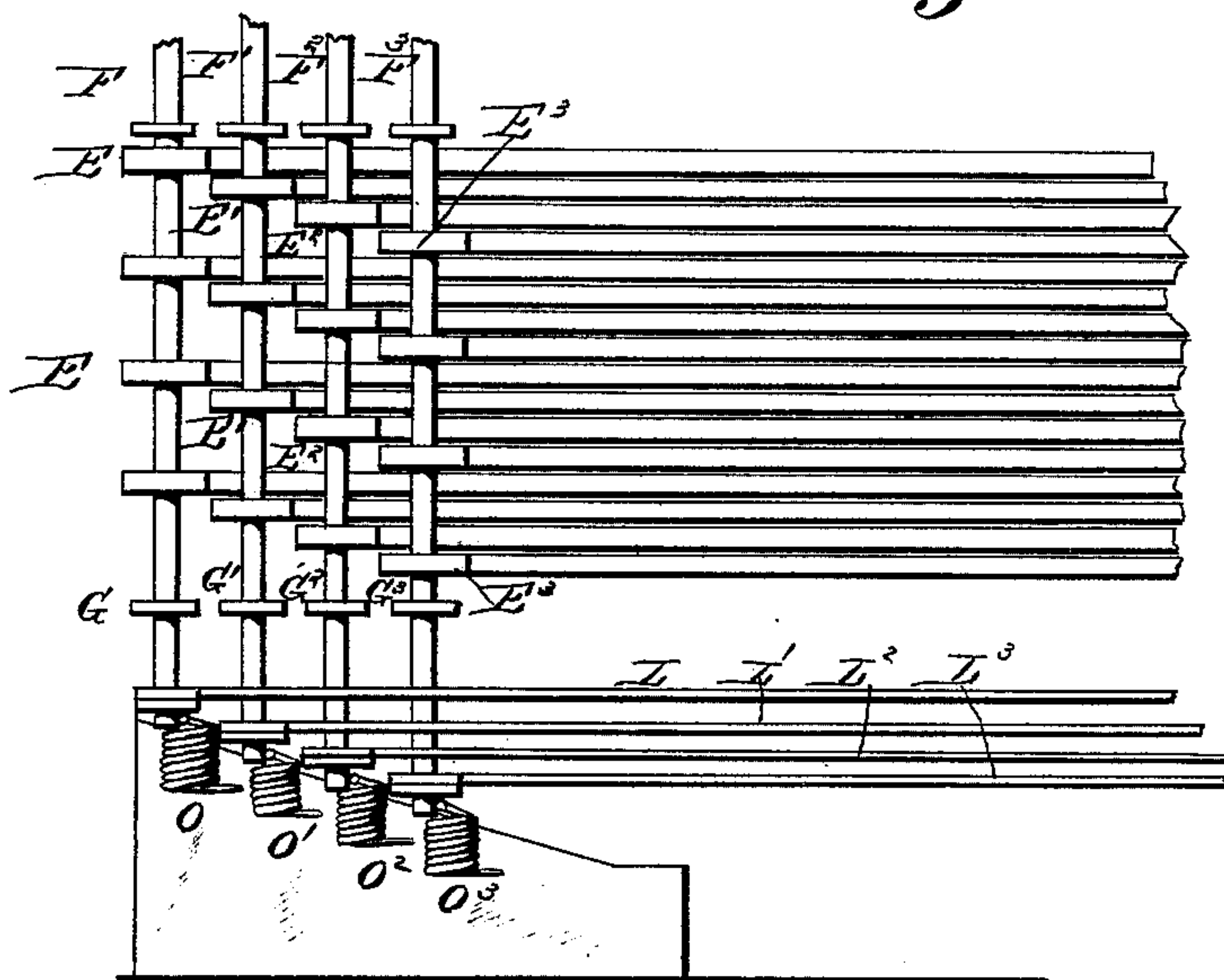
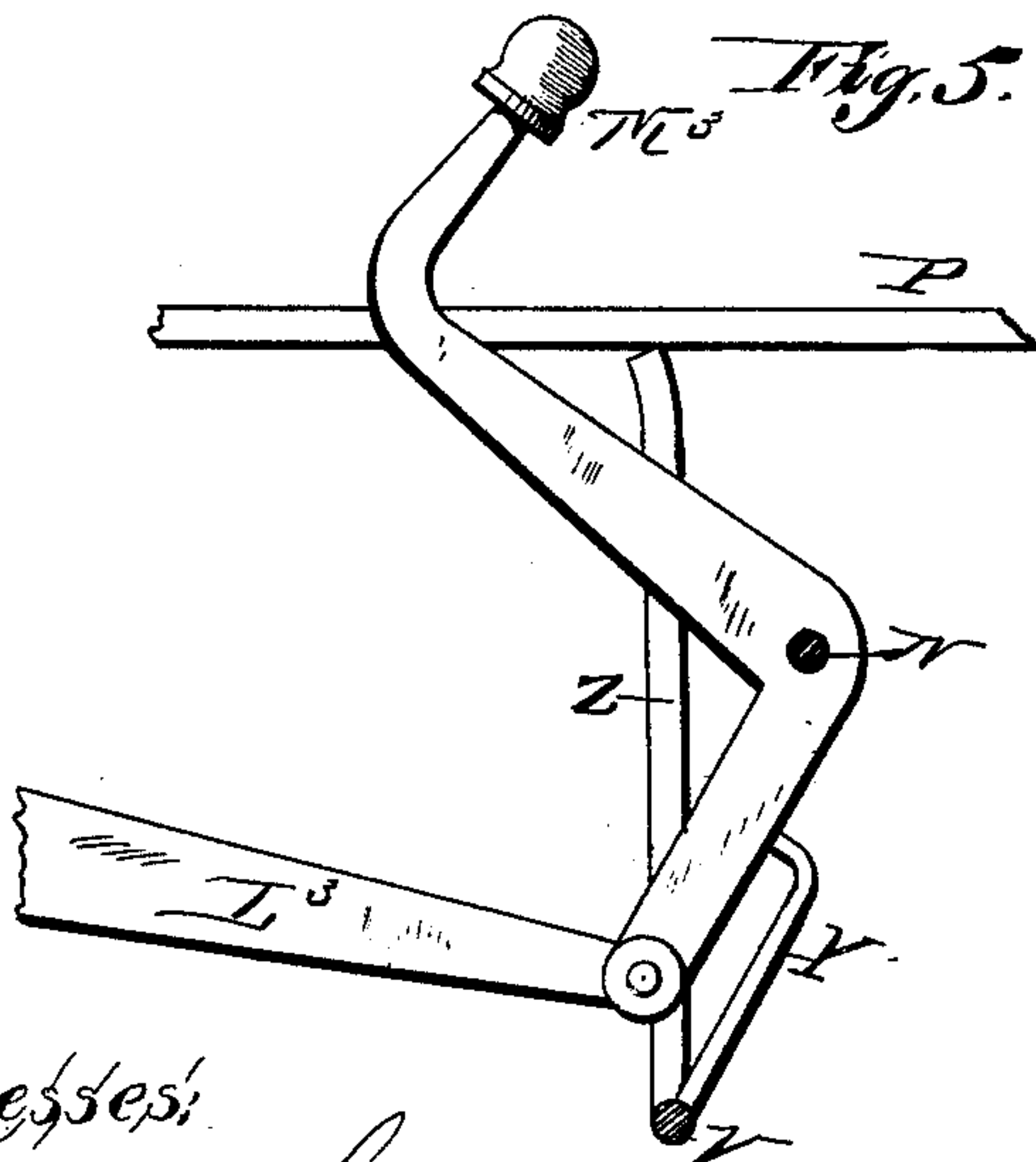


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSEPH W. BRECKENRIDGE, OF LA FAYETTE, INDIANA.

TYPE-WRITER.

SPECIFICATION forming part of Letters Patent No. 233,196, dated October 12, 1880.

Application filed September 3, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. BRECKENRIDGE, of La Fayette, State of Indiana, have invented certain new and useful Improvements in Type-Writers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to an improved apparatus which is designed especially to be employed in connection with type-writers of various descriptions, although it may be employed with advantage in connection with various kinds of printing telegraphic apparatus, and in other apparatus in which the characters of the alphabet are, by means of a system of keys under control of an operator, selected and arranged to constitute words and sentences.

In many of this class of apparatus it is necessary to provide a key for each letter, which, owing to the number, tends to render it difficult to become familiar with the practice of the apparatus, and renders it necessary for the operator to divide his attention between the keys and his copy, which is a very serious objection.

My invention is designed to obviate these objections by reducing the number of keys under control of the operator without destroying the effectiveness of the type-writer, telegraphic or other instrument, thereby rendering the same more simple and practicable in operation, and enabling almost any person to become familiar with its use in a short period of time. These objects I accomplish by the apparatus illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view; Fig. 2, a side elevation; Fig. 3, a reverse side view, partly in section; Fig. 4, a plan view of the groups of levers, and Fig. 5 a detail view of part of the device.

The letter A indicates a frame, constructed of any suitable material and carrying the various working parts of my apparatus. To one end of said frame, at the top, are pivoted a series of levers or keys, B, which are to be connected or brought into contact with the type-writer key-levers, or such levers in them-

selves may constitute the type-writer key-levers. The levers are pivoted or fulcrumed to a transverse rod, D, and are supported in a normal position by means of the springs C, which bear against their lower sides.

The letters E E' E² E³ indicate a series of levers located directly below the levers B and fulcrumed in groups of equal number to the transverse rods F F' F² F³, which are supported by the pivoted frames G G' G² G³, which extend across the apparatus below the levers E E' E² E³, and are journaled in bearings H H' H² H³ at opposite sides of the apparatus. The said levers E E' E² E³ together equal in number the levers B, and are connected therewith by means of links i.

The respective frames, at one side, are provided with arms K K' K² K³, which connect, by means of rods L L' L² L³, with the key-levers M M' M² M³, which are fulcrumed to a rod, N, secured to the frame of the apparatus. The arms K K' K² K³ have bearing against the springs O O' O² O³, by means of which the frames G G' G² G³ are held in a normal position.

The letters P P' P² P³ indicate a series of four broad keys, pivoted to a transverse rod, S, attached to the frame of the machine at one end. The said keys are located in a horizontal plane just above the plane of the levers E E' E² E³, in such manner that they may be operated to depress the said levers, respectively, as more fully hereinafter explained.

The letters Q Q' Q² Q³ indicate a series of keys extending from a series of rock-shafts, R R' R² R³, which are held in normal position by means of the springs T. The said rock-shafts are provided with forwardly-extending arms U U' U² U³, which connect, respectively, with the keys P P' P² P³ at their forward ends.

The letter V indicates a rock-shaft journaled in bearings W, and having an extension, Y, which abuts against the key-levers M M' M² M³ in such manner that when one of said key-levers is depressed the rock-shaft will be operated. The said rock-shaft carries a series of uprights, Z Z' Z² Z³, against the upper ends of which the broad levers bear when in normal position. The said uprights are held in normal position by a spring, a. The broad keys

are slotted, as indicated at *b*, so that when the upright which supports it is shifted it will permit the key to be depressed.

The operation of my invention will be readily understood from the above description, and is as follows: Upon depressing the respective levers at the left of the apparatus, which is done by the fingers of the left hand of the operator, one group of the levers $E E' E^2 E^3$ will be projected under the broad keys $P P' P^2 P^3$, and by depressing any required key at the right hand the said levers may be operated to depress the levers or keys *B*.

It will be seen that by this construction a limited number of keys may be arranged to operate a greater number, and the management of type-writers and other similar machines may be greatly simplified thereby.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an attachment for type-writers or other similar machines, the combination of a series of levers arranged in groups and connected with suitable keys, whereby they may be projected forward, with a series of broad keys and suitable key-levers, all constructed

and arranged to operate substantially as and for the purposes set forth.

2. In combination with the levers or keys *B*, the levers $E E' E^2 E^3$, fulcrumed in groups to the frames $G G' G^2 G^3$, and the keys $M M' M^2 M^3$, connected to the frames by the rods $L L' L^2 L^3$, whereby the levers $E E' E^2 E^3$ may be projected forward to be operated, substantially as and for the purposes specified.

3. In combination with the broad keys $P P' P^2 P^3$, the keys $Q Q' Q^2 Q^3$, mounted on the rock-shafts $R R' R^2 R^3$, and connected with the broad keys by means of the arms $U U' U^2 U^3$, substantially as and for the purposes specified.

4. In combination with the keys $P P' P^2 P^3$, the uprights mounted on a rock-shaft having an extension abutting against the key-levers $M M' M^2 M^3$, substantially as and for the purposes specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH W. BRECKENRIDGE.

Witnesses:

PATRICK FEELEY,
ALEX. TITSMAN.