

(No Model.)

O. KLEBER.
TELEGRAPH KEY.

No. 426,941.

Patented Apr. 29, 1890.

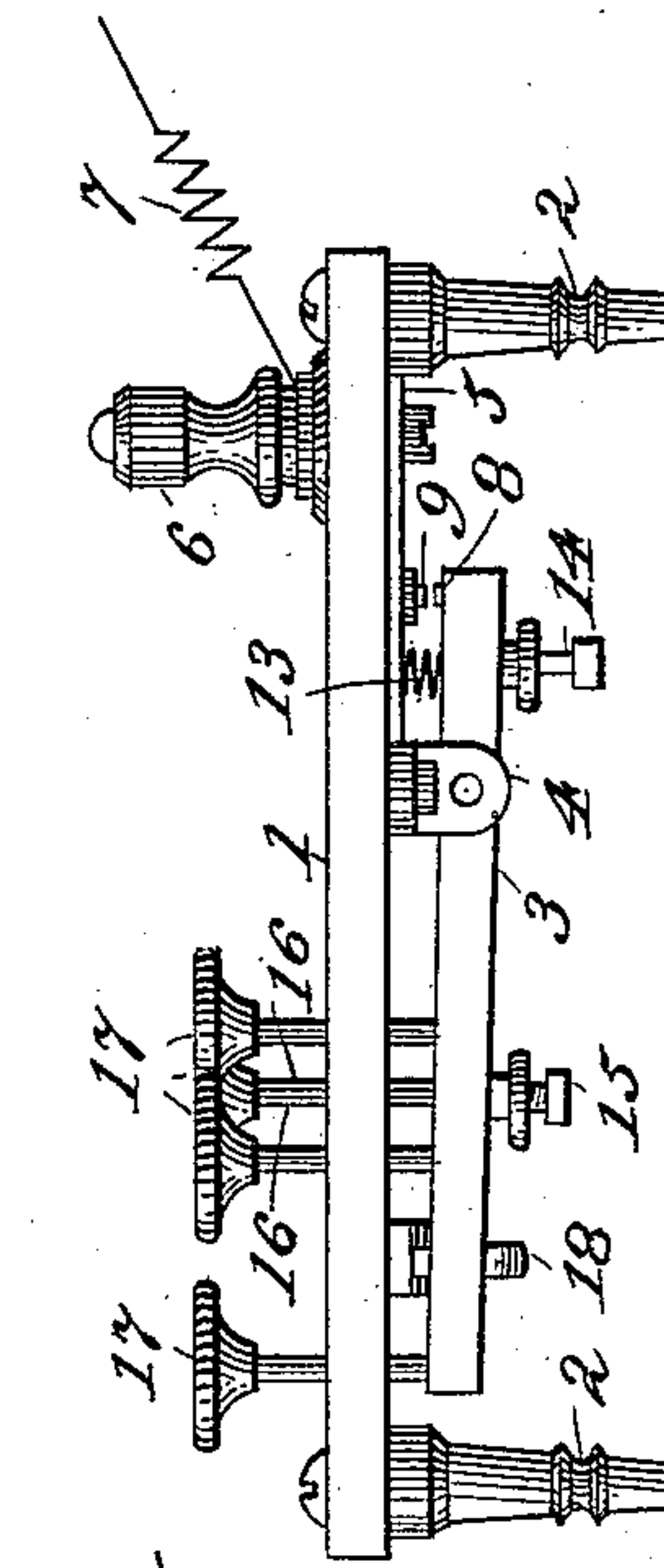
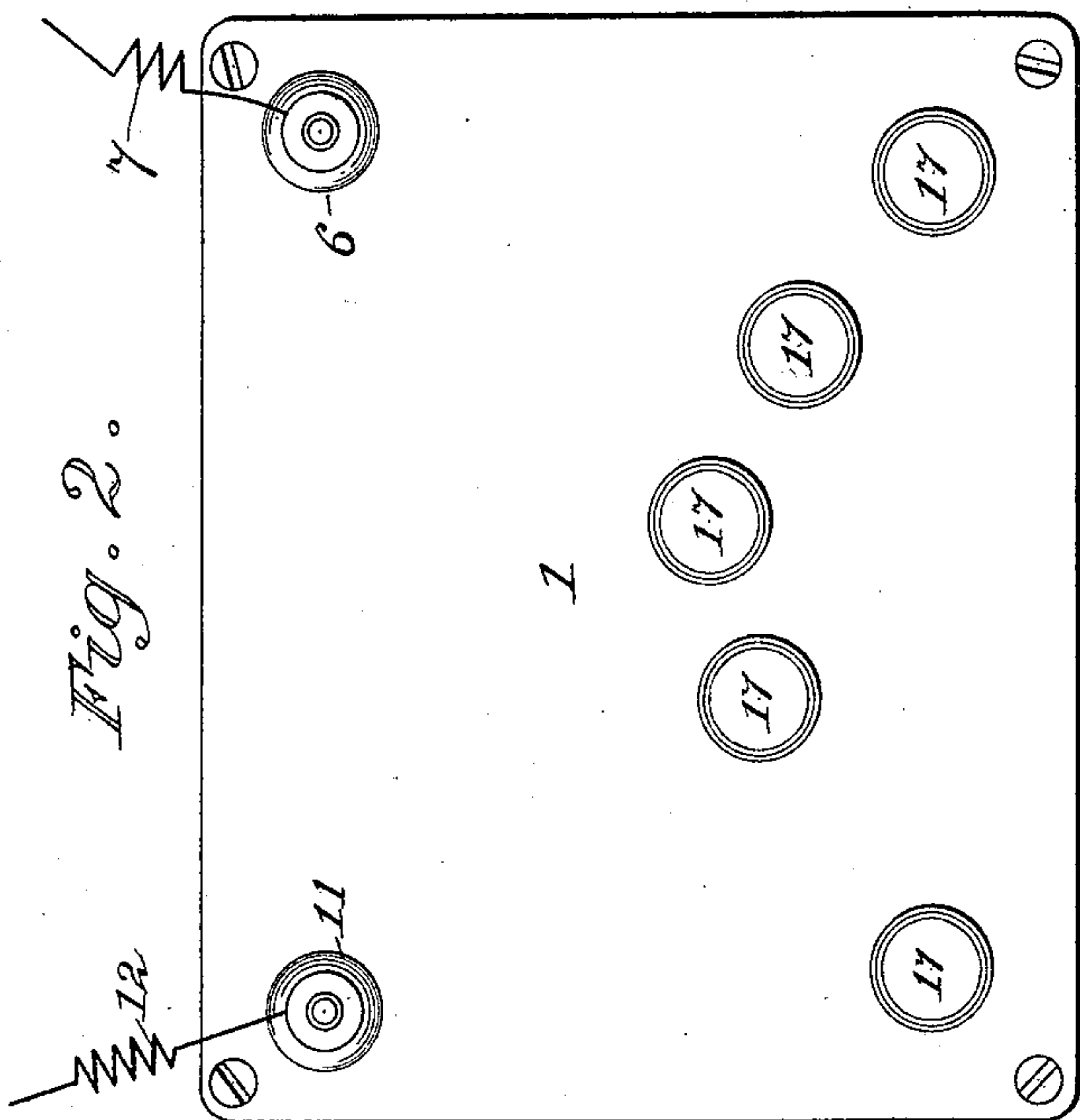


Fig. 4.

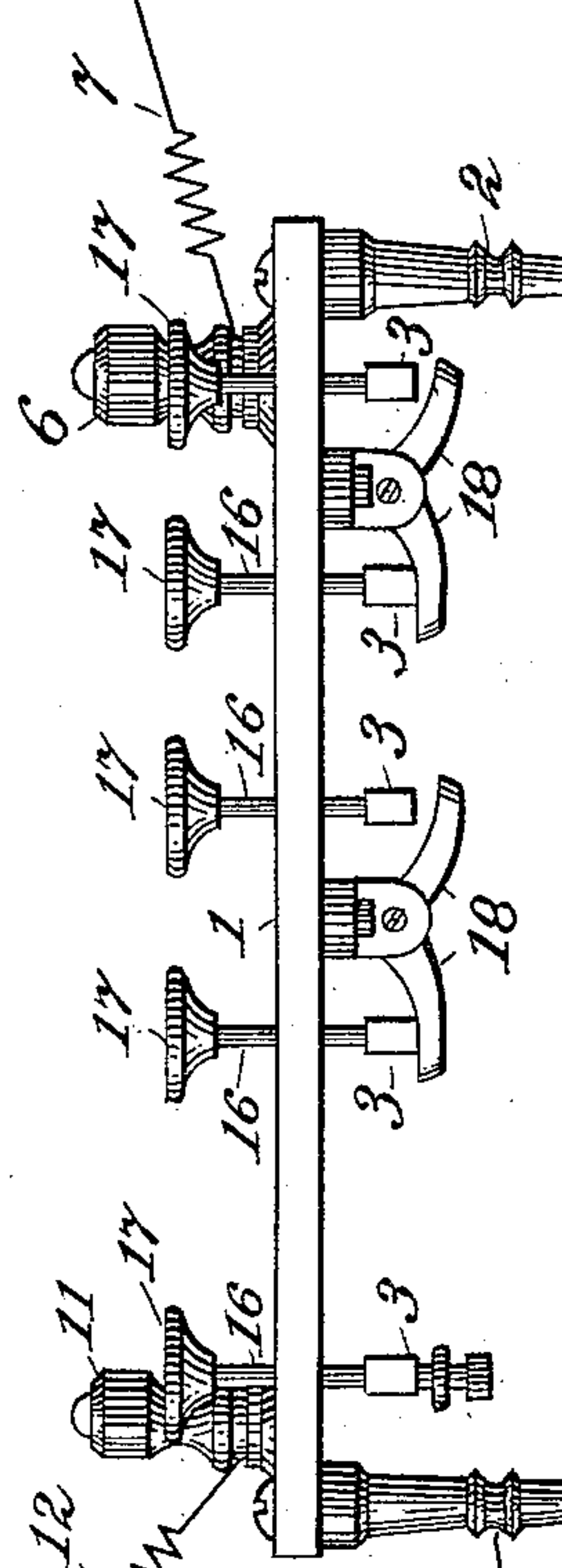
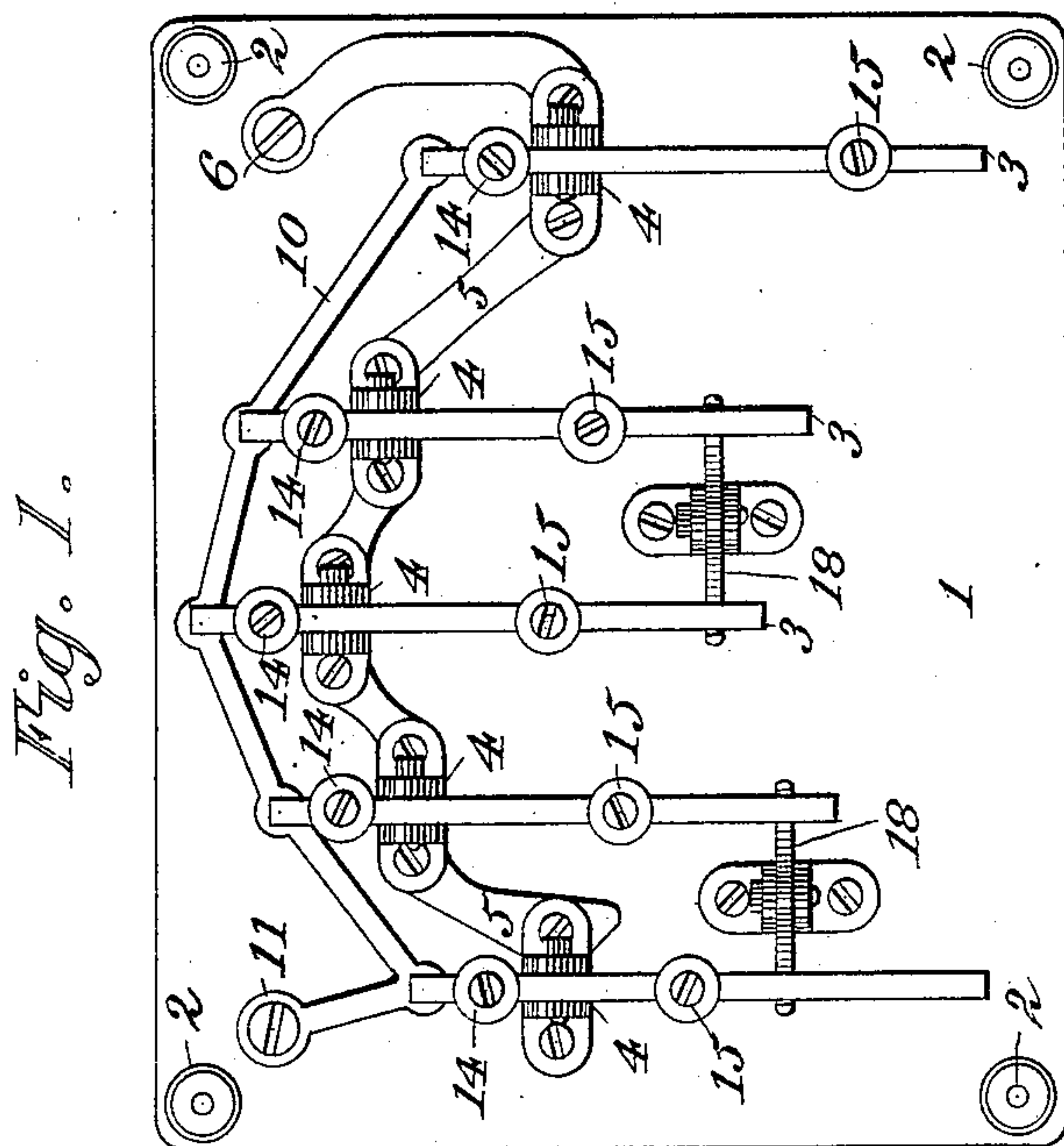


Fig. 3.

Witnesses:

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TELEGRAPH-KEY.

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To all whom it may concern:

Be it known that I, OSCAR KLEBER, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Telegraph-Keys, of which the following is a specification.

My invention relates to an improvement in telegraphic keys or device wherein a lever is manipulated to alternately make and break an electrical circuit for the production of such characteristic signals as are known and used in the Morse system of telegraphing. Heretofore such contrivances were provided with but a single key, and all the signals required in telegraphing a message were made by the movements of that key. Consequently the transmission of signals was limited by the precise number of movements such key could be given within certain time.

My invention is designed to facilitate the production of distant signals, and thereby expedite the transmission of telegraphic communications. To that end I use a series of keys, each of which is in permanent pivotal contact with a conductor of electricity common to all of them, and the knobs of these several keys are so arranged as to be most convenient for each finger and thumb of a person's right hand, whereby the keys are specially adapted to be rapidly operated singly or in pairs, and brought by turns or successive action in exact temporary contact with and separation from a suitable metallic way or electrical conductor in connection with the main line for the translation of signals, thus enabling the operator to make more signals within a given time than he possibly could by the old single-key contrivance.

The invention I have made will be readily understood from the following description, taken in connection with the accompanying drawings, wherein—

Figure 1 represents the under side of a key-board having suitable electrical translating devices comprising a series of five separate keys or levers, each provided with means for their accurate and independent adjustment; Fig. 2, a top view of said key-board, showing the respective arrangement of the several key-knobs and the binding-posts; Fig. 3, a front elevation of my improved telegraphic

key system; Fig. 4, a side elevation of the same.

To give my invention practical bodily form, I prepare a small board or tablet 1, of suitable size and of non-metallic material, and provide the same with legs 2 for its proper support. Under this tablet 1 are arranged a series of five separate levers 3, each pivoted in a bearing 4, made fast and secured to the tablet 1 and to a metallic strip or plate 5, connecting all of them to a binding-post 6, or means for attaching a wire 7, extending from an electrical generator.

Near the short end of each lever 3 is a small pin 8, projecting therefrom, which by an upward movement of that end of the lever is brought in contact with a similar pin 9, made fast in a metallic electrical way 10, leading to and joining the same with an opposite binding-post 11, having attached thereto a wire 12 for the transmission of signals.

Between the short end of the lever 3 and its pivotal bearing is located a spring 13, that by elastic force separates the aforesaid pins 8 9. The tension of this spring is made adjustable by means of a suitable screw 14. The long end of the lever has its movement determined by a screw 15, that serves to limit its upward stroke.

Affixed to and near the extreme end of the lever farthest from its pivotal point is a rod 16, that extends upward through a hole in the tablet 1, and this rod is provided at its top with a knob 17, of any suitable non-conductor of electricity.

As the several levers 3 and their immediate attachments are alike in every respect, a description of one will answer for all. The several levers 3 are arranged in parallel lines; but in order to adapt their respective knobs 17 for easy manipulation the separation is unequal, their relative positions being made to conform as nearly as possible to the finger ends and thumb of a man's right hand when openly extended. Therefore, those knobs designed for use by the fingers alone are nearer each other, while that chosen for the thumb is separated a greater distance from them.

The several levers are intended to be operated in regular sequences, and as a partial means for accomplishing the same I have shown a pivotal rocking bar 18 as trans-

versely interposed between, so that when one lever is forced down it carries with it one end of the rock-bar and correspondingly elevates its opposite end, thus preventing any action of the adjacent lever until the first is released.

This device when constructed as shown and described enables an operator to increase the speed of signal production and transmission over and above the old single-key contrivance to the extent capable of being attained by the addition and operation of the several extra keys, thereby consuming less time and accomplishing the work with less fatigue.

All the levers or keys have permanent pivotal union with a metallic electrode or conductor connected to a binding post or point receiving electricity from a suitable generator, and the keys are so arranged with respect to each other as to adapt them to be easily reached and severally operated by one skilled in the art, whereby each key is caused to produce a separate, distinct, and different signal by being brought in temporary contact with another electrode or conductor in connection with a wire or main line used for the transmission of messages.

Having thus described my invention, I claim—

1. In a telegraphic-key device, the combination consisting of a tablet or suitable support, to which is attached a conductor of electricity, two or more permanently parallel levers pivotally connected to said conductor, a fixed temporary contact-pin opposite each lever, a secondary conductor of electricity permanently connecting said pins, a suitable rock-bar whereby the respective levers are alternately locked and released, a screw in each lever for regulating its stroke, and a separate spring to each lever, together with

a screw for adjusting the tension of said spring.

2. In a telegraphic-key device, the combination consisting of a tablet or suitable support, to which is attached a conductor of electricity, a series of permanently parallel levers pivotally connected to said conductor in unequal distances of separation, a stationary contact-pin opposite each lever, a secondary conductor of electricity permanently connecting said pins, a knob on each lever for operating the same, and a pivoted rock-bar across the levers for preventing a downward movement of one lever until that next it is released.

3. In a telegraphic-key device, the combination consisting of a tablet or suitable support, to which is attached a conductor of electricity, a series of permanently parallel levers pivotally connected to said conductor in different longitudinal positions, a fixed contact-pin opposite each lever, a secondary conductor of electricity permanently connecting said contact-pins, a knob on each lever for operating the same, and a binding-post attached to each conductor of electricity.

4. In a telegraphic-key device, the combination consisting of suitable support, to which is attached a conductor of electricity, a series of permanently parallel levers pivotally connected to said conductor, a knob on each lever arranged in different relative positions, a fixed contact-pin opposite each lever, a secondary conductor of electricity permanently connecting said contact-pins, and a binding-post attached to each conductor of electricity.

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Witnesses:

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