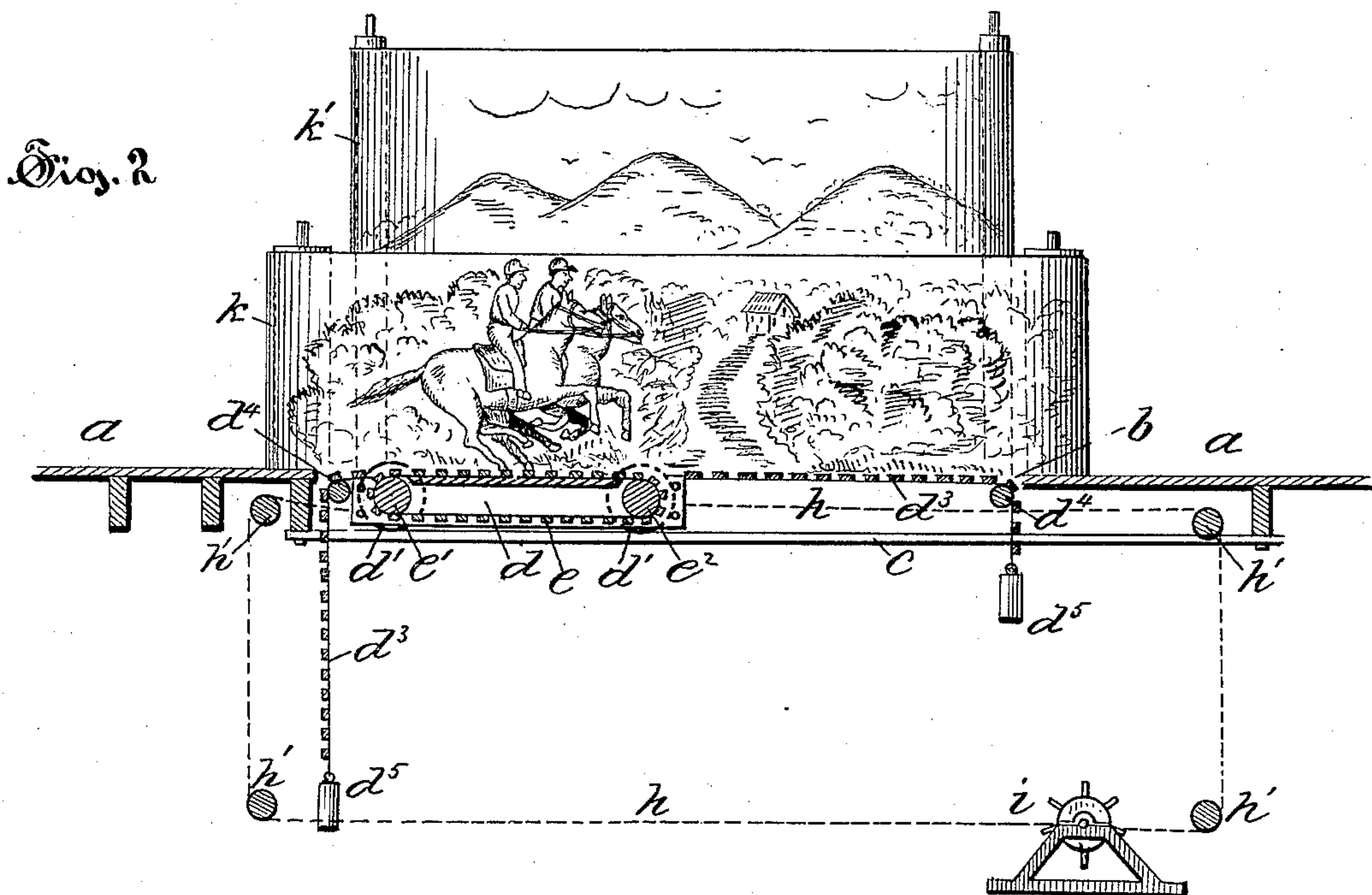
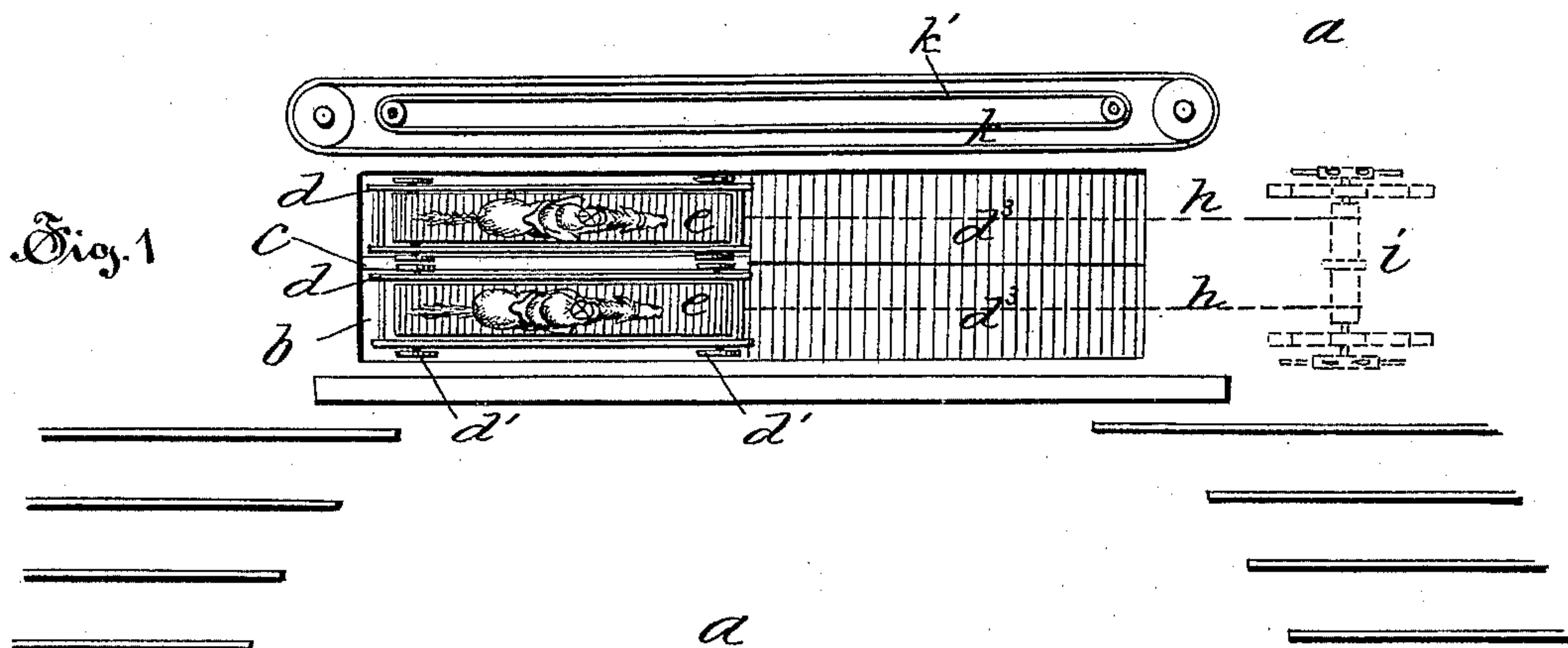


J. W. KNELL

APPARATUS FOR PRODUCING ILLUSORY DRAMATIC EFFECTS.

No. 418,372.

Patented Dec. 31, 1889.



WITNESSES

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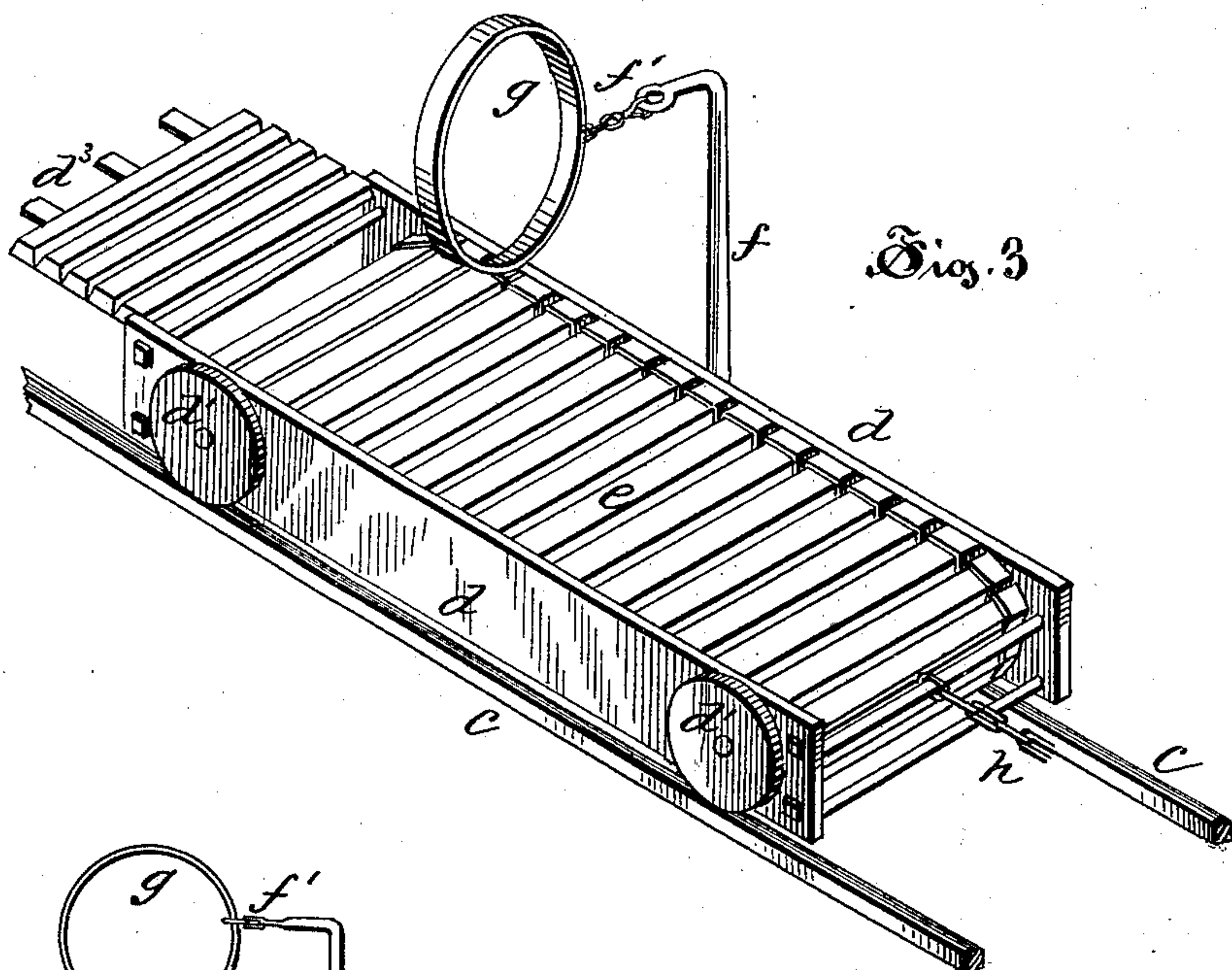


Fig. 3

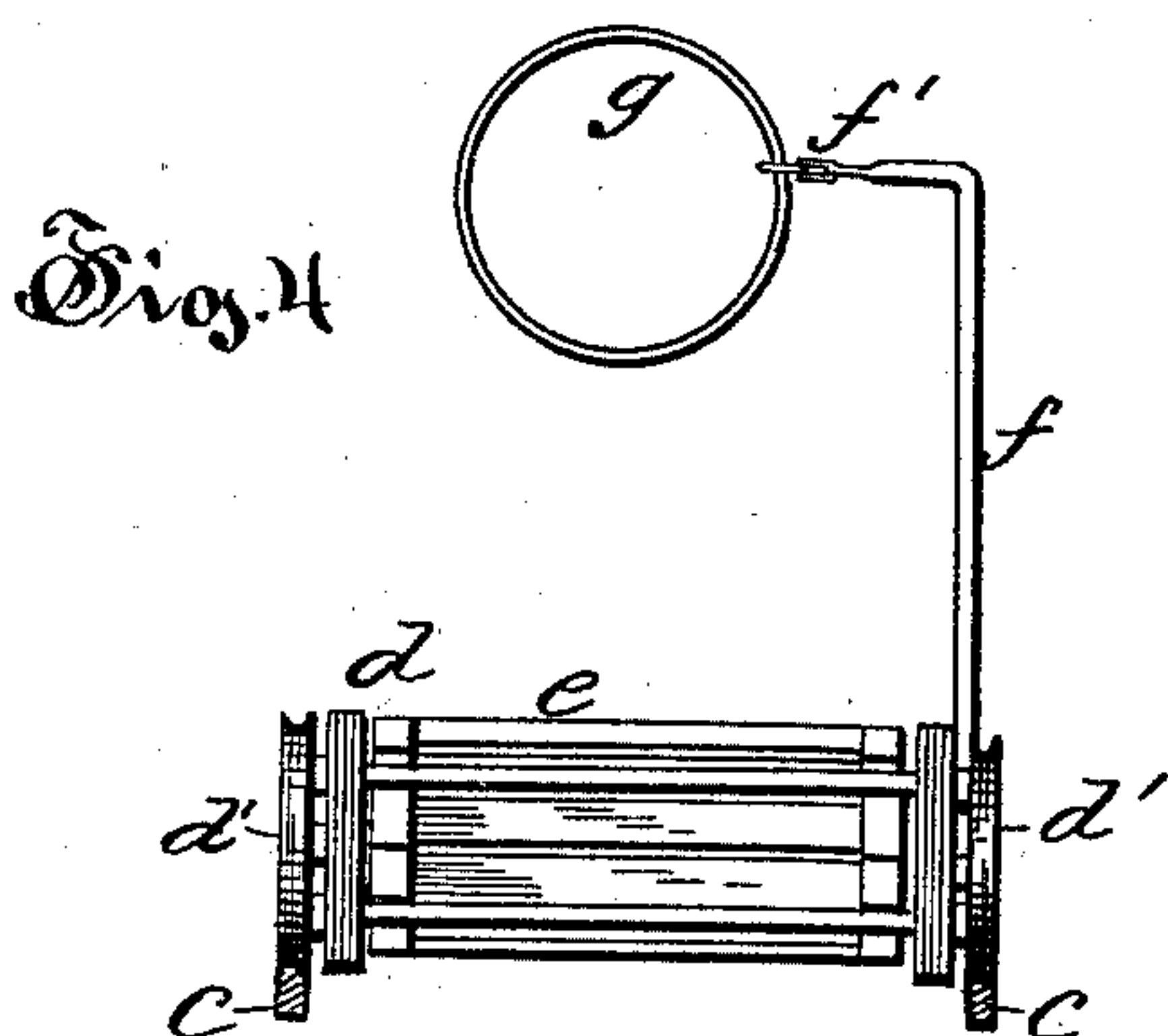


Fig. 4

Fig. 5

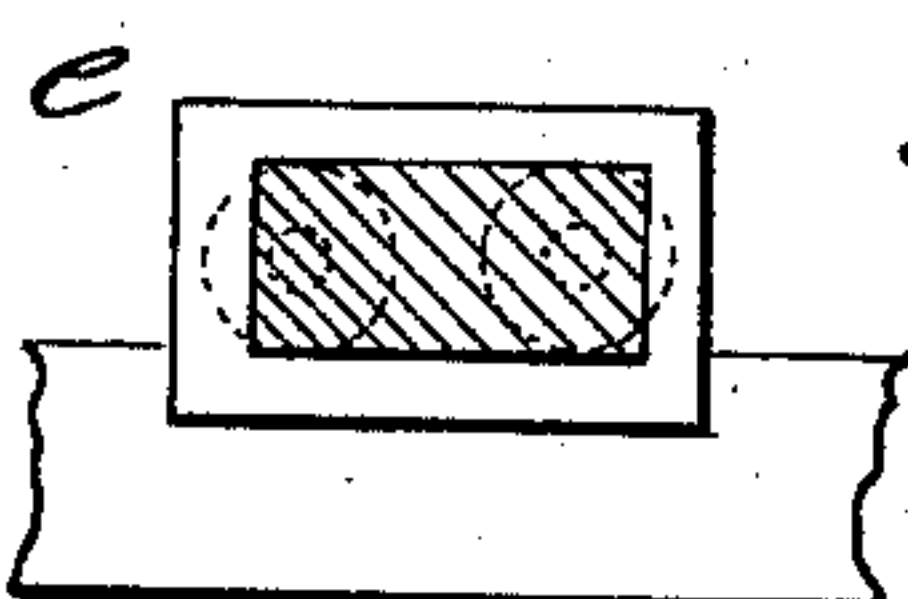
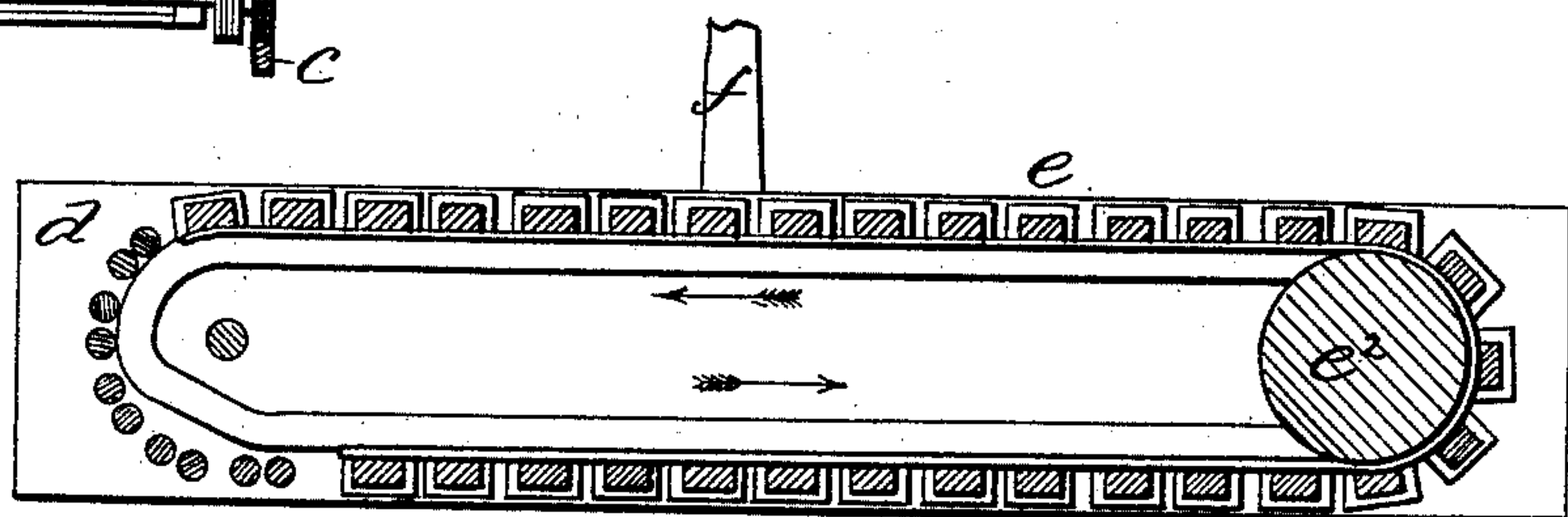


Fig. 6

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JAMES W. KNELL, OF HIGHLANDS, NEW JERSEY.

APPARATUS FOR PRODUCING ILLUSORY DRAMATIC EFFECTS.

SPECIFICATION forming part of Letters Patent No. 418,372, dated December 31, 1889.

Application filed May 3, 1889. Serial No. 309,520. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. KNELL, of Highlands, in the county of Monmouth and State of New Jersey, have invented certain
5 new and useful Improvements in Apparatus for Producing Illusory Dramatic Effects, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

10 Referring to the drawings, Figure 1 is a plan view of a stage, showing an embodiment of my invention. Fig. 2 is a front view of the same and in vertical section through the floor and one carriage. Fig. 3 is a detail
15 perspective view of the carriage. Fig. 4 is a detail end view of the carriage. Fig. 5 is a detail view, in central lengthwise section, of the carriage. Fig. 6 is a detail view, on enlarged scale, in section of a lag and in elevation of a part of the roll of a carriage-sup-
20 port.

The object of my invention is to provide means for enabling the effect of a race or contest of speed between animals or men to be
25 produced upon a limited length of floor-space, as on the stage of a theater; and to this end my invention consists in the device and means for supporting the racers and for moving them relatively; and it further consists in the
30 combination, with such means and device, of the peculiar background, as more particularly hereinafter described, and pointed out in the claims.

In the accompanying drawings, the letter *a*
35 denotes a floor, as of a stage, through which there is cut an opening *b* of any desired length and width. This opening is preferably located in a direction substantially parallel to the front of the stage; but it may be placed at
40 any desired angle therewith that may be necessary to aid in producing the effect sought. In the opening is located a carriage *d*, supported on the tracks *c* on wheels *d'*, fitting
45 upon the tracks and enabling the carriage to be moved along back and forth in the direction of the opening. The carriage supports an endless path *e*, supported on rollers *e'* *e''*, the path being made of an endless apron or flexible structure similar to that used in a
50 treadmill. A standard *f* is secured to one side of the carriage, and its upper end terminates

at a height best adapted for supporting the animal, as a horse, that is placed upon the endless path on the carriage. A flexible connection *f'* has a short length of chain or swivel,
55 as preferred, and to it is secured the girth or supporting-strap *g*, as by means of a snap-hook. By means of this device or equivalent means of attachment to the carriage the horse or other animal may be held in a fixed
60 position so far as the carriage is concerned, while it is prevented from moving lengthwise off the carriage, although making violent movements, as in running, to produce the rapid motion of the endless path. A chain
65 or rope *h* is secured to the carriage and led over pulleys *h'* to the windlass *i*, by means of which the carriage, while supporting considerable weight, may be drawn along on the track to the extent of the opening through
70 the floor.

Any desired number of carriages *d* or similar structures can be arranged side by side in the opening, and to each carriage a like rope or chain is connected and conducted
75 over a supported windlass, so that the relative position of the two carriages may be determined at will. As the position of the animal is fixed so that it is not changed with reference to the length of the carriage, the change
80 of the position of the carriage causes a change in the relative position of the animals borne thereon, and by regulating the relative position of the carriages at the time when the animals are in active motion, as running, the
85 semblance of a race or contest of speed between the animals is produced.

In order to aid in the effect produced and also to cover the opening, a flexible apron *d''* is secured to the opposite ends of each car-
90 riage, and each extends over rollers *d'''* close to the extreme ends of the opening, and then turns downward and bears a weight *d''''*, or are provided with equivalent means of keeping the flexible covering extended while the car-
95 riage is moving backward and forward on the tracks. When the carriage is mounted on rails on the stage, this flexible apron is not required, as there is then no opening through the stage to conceal.
100

In order to aid in the illusory effect, I make use of a compound panoramic scene made up

of a foreground panorama *k* and a background panorama *k'*, the former being supported on upright rollers at opposite ends, on which it may be wound and unwound in the usual manner, while the panorama forming the background is borne on rollers of greater length, arranged so that this background is placed in the rear, somewhat in the manner shown in Figs. 1 and 2 of the drawings. This panoramic scene, displayed on canvas of different heights, is of course properly located with reference to the rest of the stage, so as to form a suitable background for the incident to be illustrated by the moving figures that are placed on the carriage or carriages.

In a prior patent I have shown and described an apparatus in which an endless path, fixed in its position with relation to the stage, is embodied, while the animal, as a horse, is held by means that enable its position to be changed—that is, allow it to have a progressive movement along the path. In my within-described device and apparatus the position of the animal with relation to the carriage supporting the endless path is substantially fixed, (within certain limits of movement, as described,) while the carriage and path are moved back and forth as a preferable means of changing the position of the animal with reference to the surrounding objects, or of two or more animals with reference to each other.

In the accompanying drawings my apparatus is described with reference to a horse-race; but without material change the apparatus can be fixed so that the precise effect of a boat-race or other contest of speed may be successfully represented in so far as the effect of the progressive movement and the alternation in position of the participants is concerned; and I do not limit myself to the particular device for the specific purpose—that is, a horse-race—that is herein illustrated.

I claim as my invention—

1. In combination with a movable carriage located on a stage-floor, the endless path borne on the carriage, the rope or like flexible connection from the carriage to a windlass and extending from opposite ends of said carriage over guides or pulleys, the guides or pulleys, and the means, as a windlass, for producing an intermittent reciprocating movement of the carriage, all substantially as described.

2. In combination with a stage-floor having an opening therethrough, a movable carriage located in the opening and movable along its supports, the endless path borne on said carriage, a standard fixed to the carriage, and the means, substantially as described, for moving the said carriage back and forth along the opening, substantially as described.

3. In combination with a number of carriages supported on tracks or runways and adapted to move thereon, the standards or like means of attachment of an animal fixed to each carriage, the endless path or apron borne on the carriage, and the means, substantially as described, for moving the several carriages, all as and for the purpose specified.

4. In combination with a stage-floor having an opening therethrough, a carriage located in the opening and movable along its supports, the standard fixed to the carriage, the endless path borne on the carriage, the flexible apron fast to the carriage and passing over a support near one end of the opening, the apron-support, and the means for moving the carriage back and forth along the opening, all substantially as described.

5. In combination with a stage-floor, a movable carriage supported thereon, an endless path borne on said carriage, means for imparting an intermittent movement to the carriage, and the background scene, all substantially as described.

6. In combination, in a stage-setting, the compound panoramic scenes of unequal heights and adapted to be moved at different rates of speed, all substantially as described.

7. In combination with a stage, the background or like stage-setting, a carriage movable back and forth on said stage, the horizontal endless path borne on said carriage and independent of any connection with the carriage-propelling mechanism, all substantially as described.

8. In combination with a stage-floor, a movable carriage located thereon and movable along its supports, the endless path borne on said carriage, and means, substantially as set forth, for moving the carriage back and forth, substantially as described.

JAMES W. KNELL.

Witnesses:

P. T. TURNER,
DAVID TOWERS.