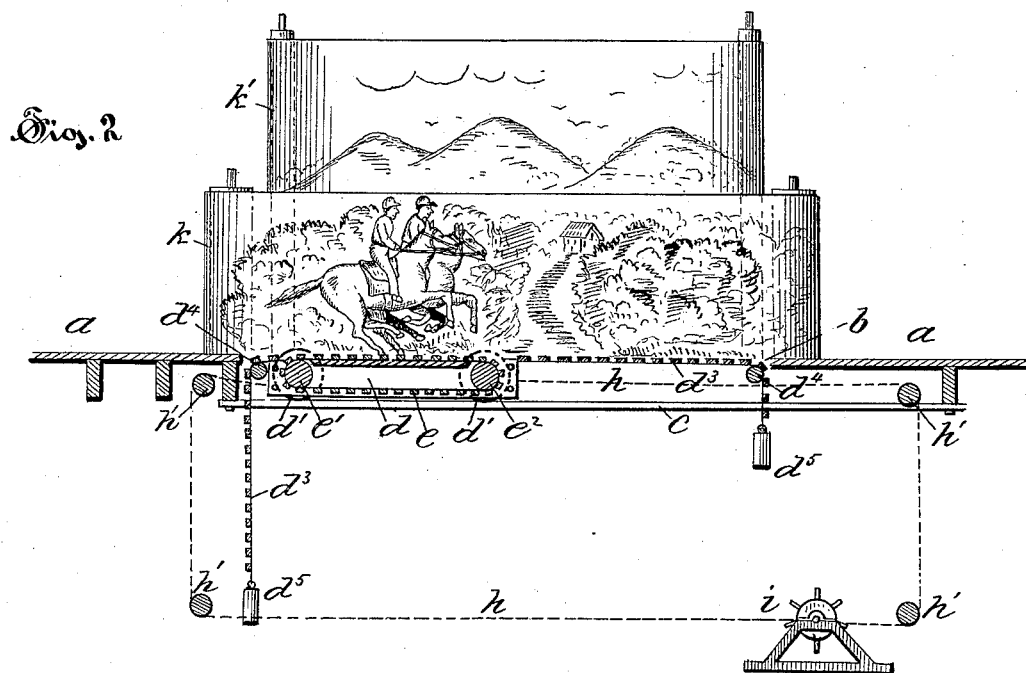
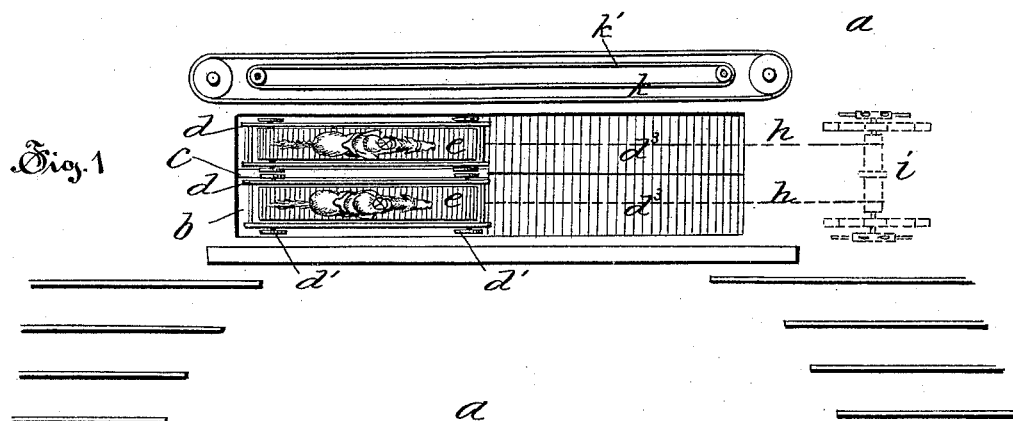


J. W. KNELL

APPARATUS FOR PRODUCING ILLUSORY DRAMATIC EFFECTS.

No. 418,372.

Patented Dec. 31, 1889.



WITNESSES

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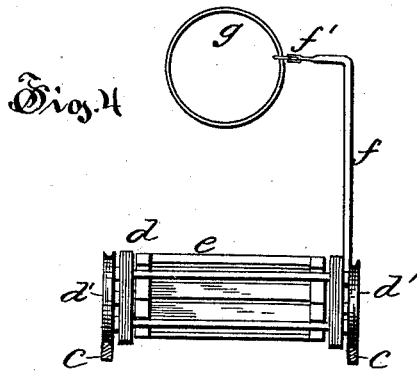
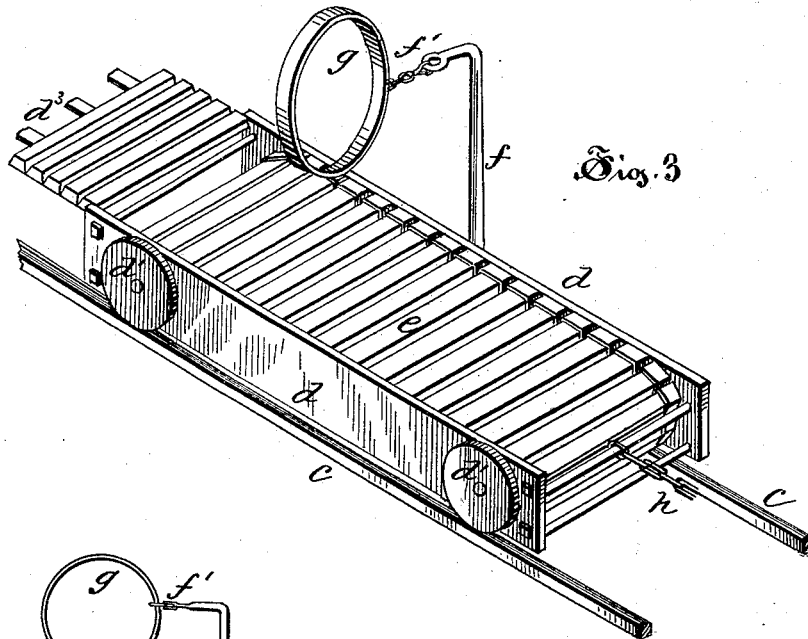
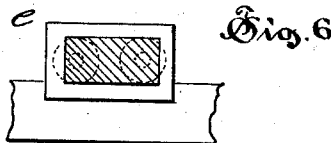
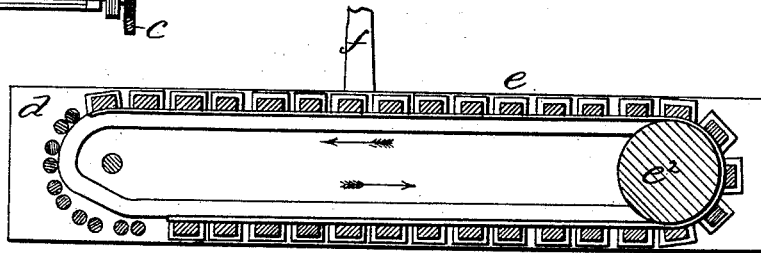


Fig. 5



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UNITED STATES PATENT OFFICE.

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 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.

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 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-support.

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 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 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* 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 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 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'*, the path being made of an endless apron or flexible structure similar to that used in a 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, 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 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 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 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 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 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 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 *d³* is secured to the opposite ends of each carriage, and each extends over rollers *d⁴* close to the extreme ends of the opening, and then turns downward and bears a weight *d⁵*, or are provided with equivalent means of keeping the flexible covering extended while the carriage 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.

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
5 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
10 panoramic scene, displayed on canvas of dif-
ferent heights, is of course properly located
with reference to the rest of the stage, so as
to form a suitable background for the inci-
dent to be illustrated by the moving figures
15 that are placed on the carriage or carriages.

In a prior patent I have shown and de-
scribed an apparatus in which an endless
path, fixed in its position with relation to the
stage, is embodied, while the animal, as a
20 horse, is held by means that enable its po-
sition 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
25 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
30 the animal with reference to the surrounding
objects, or of two or more animals with refer-
ence to each other.

In the accompanying drawings my appa-
ratus is described with reference to a horse-
35 race; but without material change the appa-
ratus 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
40 alternation in position of the participants
is concerned; and I do not limit myself to
the particular device for the specific pur-
pose—that is, a horse-race—that is herein
illustrated.

45 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 flexi-
ble connection from the carriage to a wind-
50 lass and extending from opposite ends of
said carriage over guides or pulleys, the
guides or pulleys, and the means, as a wind-
lass, for producing an intermittent reciproc-
ating movement of the carriage, all substan-
55 tially as described.

2. In combination with a stage-floor hav-
ing an opening therethrough, a movable car-
riage located in the opening and movable
along its supports, the endless path borne
on said carriage, a standard fixed to the car- 60
riage, and the means, substantially as de-
scribed, for moving the said carriage back
and forth along the opening, substantially as
described.

3. In combination with a number of car- 65
riages 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, sub- 70
stantially as described, for moving the sev-
eral carriages, all as and for the purpose
specified.

4. In combination with a stage-floor hav-
ing an opening therethrough, a carriage lo- 75
cated 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 pass-
ing over a support near one end of the opening, 80
the apron-support, and the means for moving
the carriage back and forth along the open-
ing, all substantially as described.

5. In combination with a stage-floor, a mov-
able carriage supported thereon, an endless 85
path borne on said carriage, means for im-
parting an intermittent movement to the car-
riage, and the background scene, all substan-
tially as described.

6. In combination, in a stage-setting, the 90
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 back-
ground or like stage-setting, a carriage mov- 95
able back and forth on said stage, the hori-
zontal endless path borne on said carriage
and independent of any connection with the
carriage-propelling mechanism, all substan-
tially as described. 100

8. In combination with a stage-floor, a mov-
able 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, 105
substantially as described.

JAMES W. KNELL.

Witnesses:

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DAVID TOWERS.