

No. 612,090.

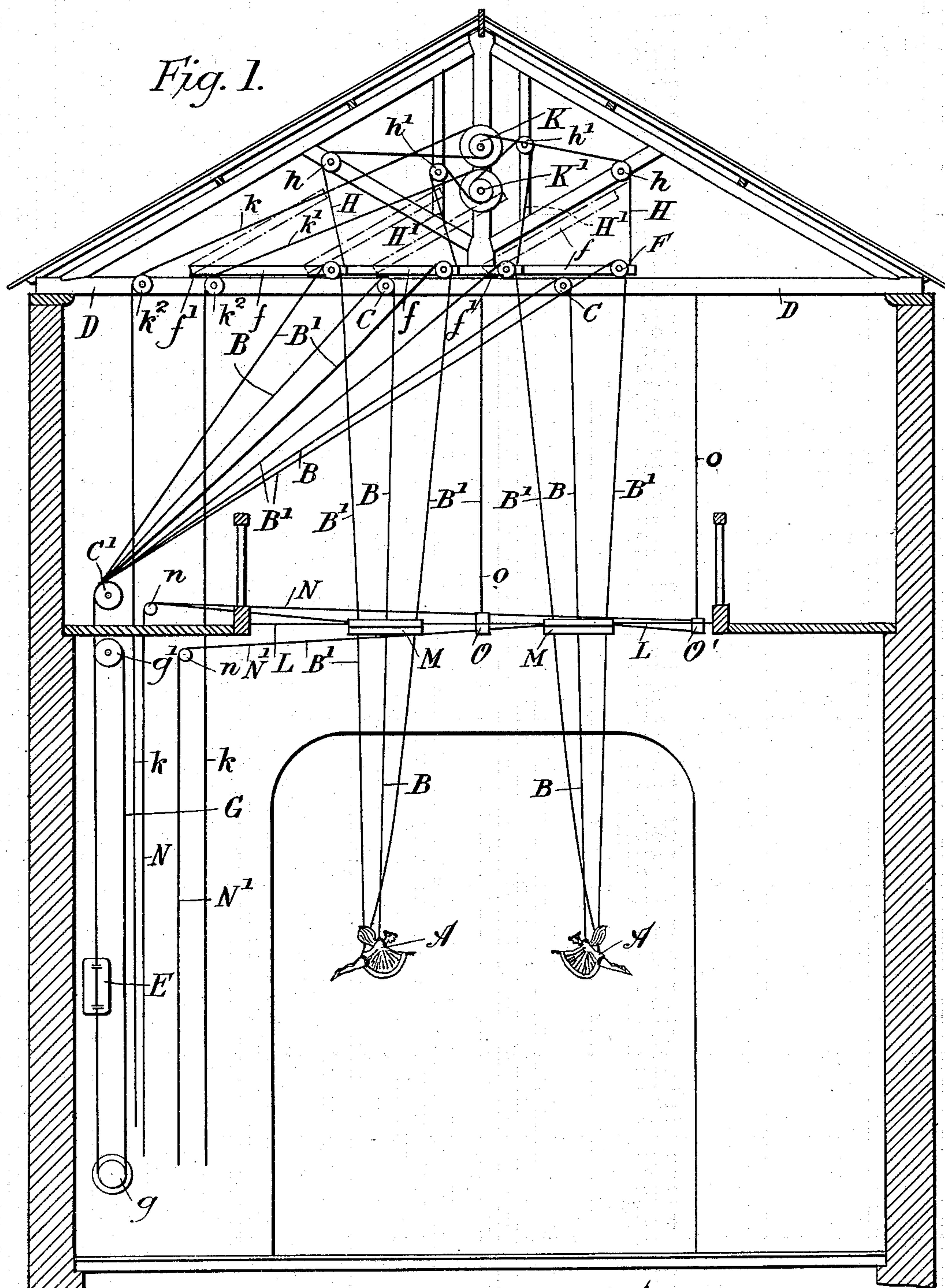
Patented Oct. 11, 1898.

G. A. O. CONQUEST.
THEATRICAL FLYING APPARATUS.

(Application filed Mar. 13, 1897.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses
William James Bulgin
Albert Edward Ellew

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By his Attorney
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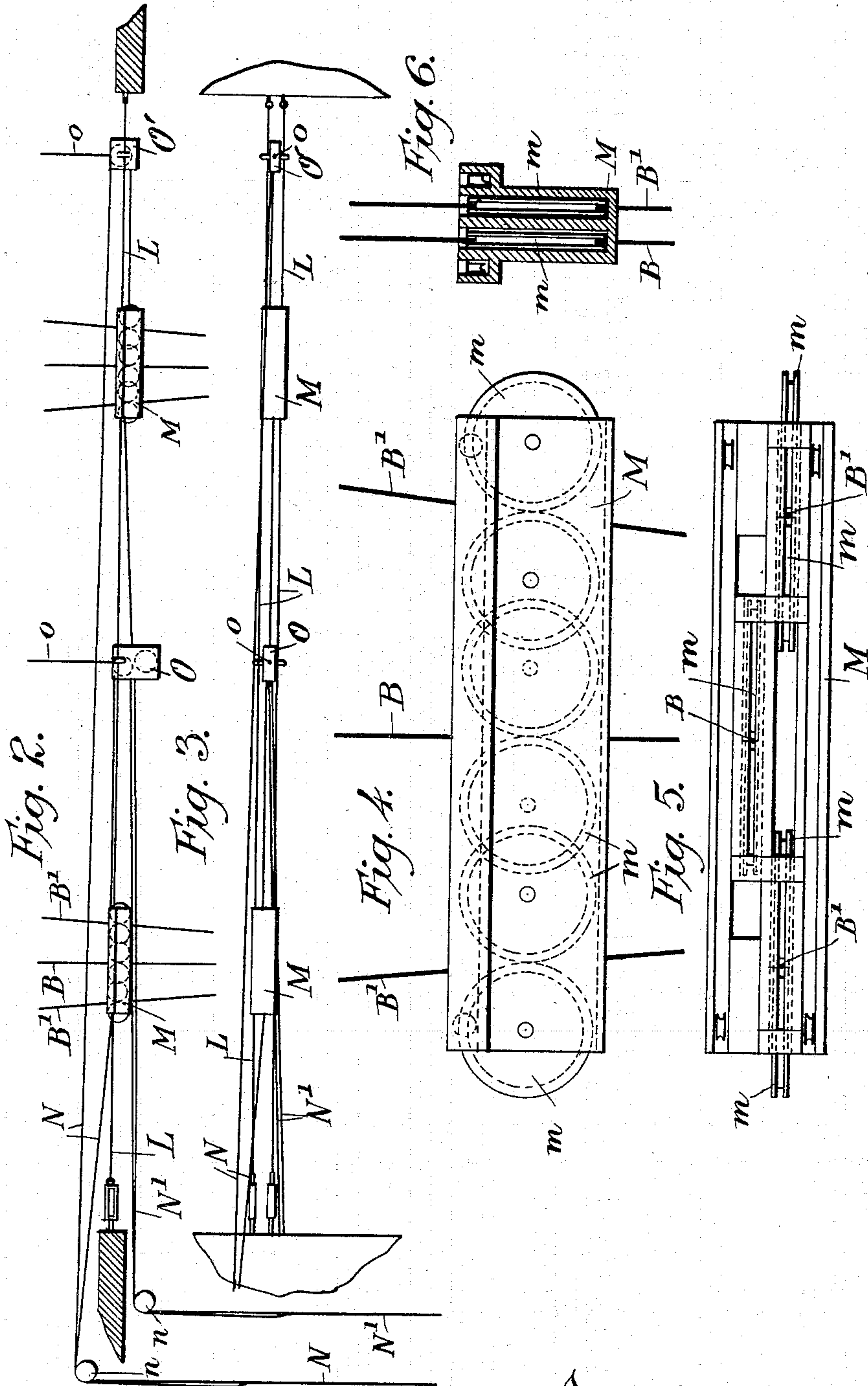
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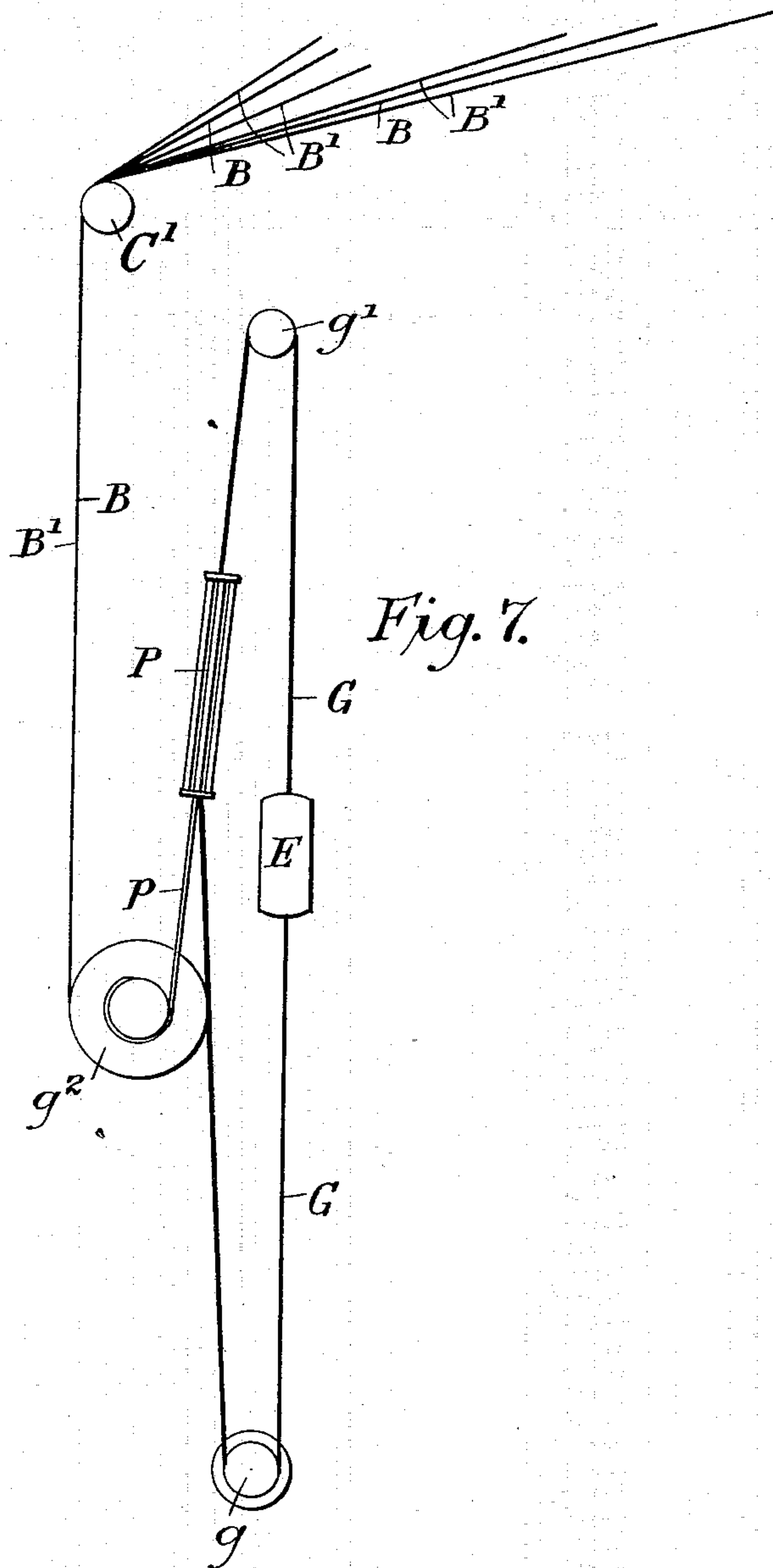
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(No Model.)

3 Sheets—Sheet 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE AUGUSTUS OLIVER CONQUEST, OF LONDON, ENGLAND.

THEATRICAL FLYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 612,090, dated October 11, 1898.

Application filed March 13, 1897. Serial No. 627,391. (No model.)

To all whom it may concern:

Be it known that I, GEORGE AUGUSTUS OLIVER CONQUEST, theatrical manager, a subject of the Queen of Great Britain and Ireland, residing at 49 Brixton Hill, S. W. London, England, have invented certain new Improvements in Apparatus for Theatrical Purposes, of which the following is a specification.

This invention relates to apparatus for use on the stage in connection with figures intended to be raised in the air and to be moved in an appropriate manner. This apparatus is especially intended for use in connection with pantomimes, ballets, and the like, in which "fairies," "angels," &c., are employed among the characters, but may be employed for any other public performance.

I carrying out my invention I propose to employ a series of wires connected to the figures to be supported and moved. For each figure a series of three wires is provided—a central one, connected, preferably, to the upper part of the person, serving to raise the figure from the ground, and two others, connected to the lower part of the body, serving to tilt the figure in any required direction. When two or more figures are required to be raised at the same time and to go through the same motions, all the wires are preferably connected to one weight, having a wire or chain passing over suitable pulleys or drums. On winding up the wires by means of the drum the figures are raised simultaneously from the stage to the required height, the central wire supporting the weight. The two side wires are preferably slightly slack and pass over pulleys carried on the ends of levers. To the end of the lever wires or chains are connected, passing over pulleys and hanging down to the stage, so that they can be operated by a person in the wings. On pulling one of these connections the figure is tilted and at the same time pulled to one side; but on pulling both the wires leading to any given figure the latter is tilted without turning, so that any desired position can be taken. To move the figures sidewise, runners or travelers are employed, carried on horizontal wires and provided with rollers, between which the suspending-wires pass. These runners are provided with wires or connections hanging

down to the stage, allowing them to be drawn or slid in either direction.

In order that the invention may be more clearly understood, reference is had to the accompanying sheet of drawings, in which—

Figure 1 is an elevation of the complete apparatus. Figs. 2 to 6 show the runners or travelers employed to give horizontal motion to the figures; and Fig. 7 is a detail view of the weight and connections, showing a slightly-modified arrangement to Fig. 1.

Fig. 1 shows the apparatus arranged for two figures; but any suitable number may be employed with several rows of the same or a different arrangement of figures. The apparatus is carried by the framework of the building, the main part being carried by the cross-beams at the roof or by special means or supports of any ordinary description. The figures A are provided with the central wire B, connected to the upper part of the figure about the neck, suitable bands being carried by the figure. These central wires pass over the pulleys C, carried by the beam D at the upper part of the apparatus and pass thence over the pulleys C' to the weight E at the side of the stage or in the wings. The side wires B' are both connected to the figure at about the waist and extending at a slight angle at each side and pass over the pulleys F and thence over the pulleys C', being also connected to the weight E. The main support is given to the figure by the central wires, the side ones being slightly slack, excepting when specially operated.

To raise the figures from the ground, the wire frame or other connection G is employed, connected to the lower end of the weight E, and passing over pulleys or drums g and g', and placed within convenient reach of the operator. The wire or connection is pulled or wound up, so as to draw the weight down and raise the figures to the required height. In the arrangement shown in the drawings the two figures would be raised simultaneously, as the connection for both passes to the same weight.

The pulleys F, over which the lines B' pass, are carried on levers or arms f, hinged at the end f' to the beam D or to any other convenient support. To the end of these hinged

arms two sets of wires H and H' are connected, passing over the pulleys *h* and *h'* to the drums K and K', on which they can be partly wound. To these drums the wires *k* and *k'* are connected, passing over the pulleys *k²* and hanging down to the stage. On pulling either of these wires one of the drums K or K' will be turned a distance corresponding to the pull winding up the wires belonging to it and raising a pair of levers carrying the outer or inner side wires, turning both wires simultaneously in the same manner. On pulling one connection both figures are turned toward the spectators and on operating the other they are turned from the spectators, the movement being quite symmetrical. The figures are turned on pulling the wires unevenly, owing to the fact that one set of wires extends from the figures in one direction, though at a considerable angle, and the other extends from the opposite side. For example, on slackening the right-hand wire belonging to the left-hand figure, as shown in the drawings, the figure will turn its head toward the center, and when this wire is tightened and the other slackened the same figure will turn toward the audience. When both sets of wires are thoroughly taut, the figures may be arranged to face the audience or to take up any other desired position. The angle taken up by the figures will depend upon the relative length allowed to the side wires, one being given out a short distance, not sufficient, however, to throw the whole strain upon the other. When one pair of wires is entirely slack, as in the arrangement shown, of course the figures are turned to their extreme position. The supporting-wire B is the one which carries the main weight, and as it is attached to the figure about the neck it forms the fulcrum around which the figure can turn, the center of gravity being, of course, considerably below this point. On pulling both wires *k* and *k'* the two sets of side wires B' will be actuated and the figures tilted. The hinged arms are shown in Fig. 1 in their raised position in dotted lines.

To move the figures sidewise, the arrangement shown in detail in Figs. 2 to 6 is employed, supporting wires or lines L being stretched horizontally from side to side of the apparatus out of sight of the audience. On these wires the slides or travelers M are carried, adapted to move into any desired position on the said wire. These travelers carry the rollers *m*, (shown in Figs. 4, 5, and 6,) a set of two rollers being employed for each of the wires B and B' operating the figures. The rollers are grooved or provided with flanges between which the wires pass, effectually preventing the latter escaping from the proper position.

To operate the runners, the two sets of wires N and N' are employed, passing over the pulleys *n* at one side and connected, respectively, to the outer and inner ends of each of the runners. The wires N and N' also pass through the blocks or sheaves O and O', placed, re-

spectively, at the center and side of the apparatus and fixed to the supporting-wires L. These sheaves are also suspended by the wires *o* from the top of the apparatus, assisting to support the wires L. On pulling one of the sets of wires N and N' by the connections hanging down to the stage the runners or travelers are pulled toward the wings or to the center of the stage, moving the figures in the required direction. Fig. 7 shows an arrangement in which a rubber or other spring P is inserted in the connections to the weight E. The wires B and B' or connections from them pass over the pulley *g²*, the wire or leather belt *p* passing from the weight and spring also passing to the pulley or to a smaller one on the same spindle. This spring causes a more graceful and effective motion on the part of the figures.

If it is desirable that the figures should only turn one way, either to the center or outward, I may effect this by using only two wires—viz., the supporting-wires B and B'.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an improved apparatus for stage purposes intended for application to floating or suspended figures, the combination with a central wire connected to each figure, two side wires also connected to the figure at a lower point, a weight to which these wires are attached, and connections for operating them, of a movable pulley for each of the side wires, wires attached to the said pulleys and connections to these wires allowing the side wires to be raised or lowered independently of the central one, substantially as and for the purposes specified.

2. In an improved apparatus for stage purposes intended for application to floating or suspended figures, the combination with a central wire connected to each figure, two side wires also connected to the figure at a point, a weight, springs and connections for operating them, of pivoted arms each carrying a pulley over which one of the side wires passes, wires operating the said pulleys and connections to the said wires substantially as and for the purposes specified.

3. In an improved apparatus for stage purposes in connection with floating or suspended figures the combination with a central wire attached to each figure at its upper end, two side wires connected to the figure at a lower point, pulleys over which the wires pass, a weight to which they are connected and connections by which the figures can be raised or lowered, of hinged or pivoted arms each having a pulley over which one of the side wires passes, wires connected to the said arms and connections by which the wires can be operated and the hinged arms raised or lowered substantially as and for the purposes specified.

4. In an improved apparatus for stage purposes to be used in connection with floating or suspended figures, the combination with a

central wire and two side wires connected to
each figure, pulleys for the central wire, a
weight to which all the wires are attached,
and connections allowing them to be actuated,
5 of hinged arms, pulleys on the said arms sup-
porting the side wires and wires attached to
the said arms, drums over which the wires
pass and upon which they can be wound, and
connections to the said drums adapted to turn

them, substantially as described and shown in
and for the purposes specified.

In witness whereof I have set my hand, in
the presence of two witnesses, at London, this
9th day of February, 1897.

GEORGE AUGUSTUS OLIVER CONQUEST.

In presence of—

ALBERT EDWARD ELLEN,
FRANK WILLIAM PATTISON.