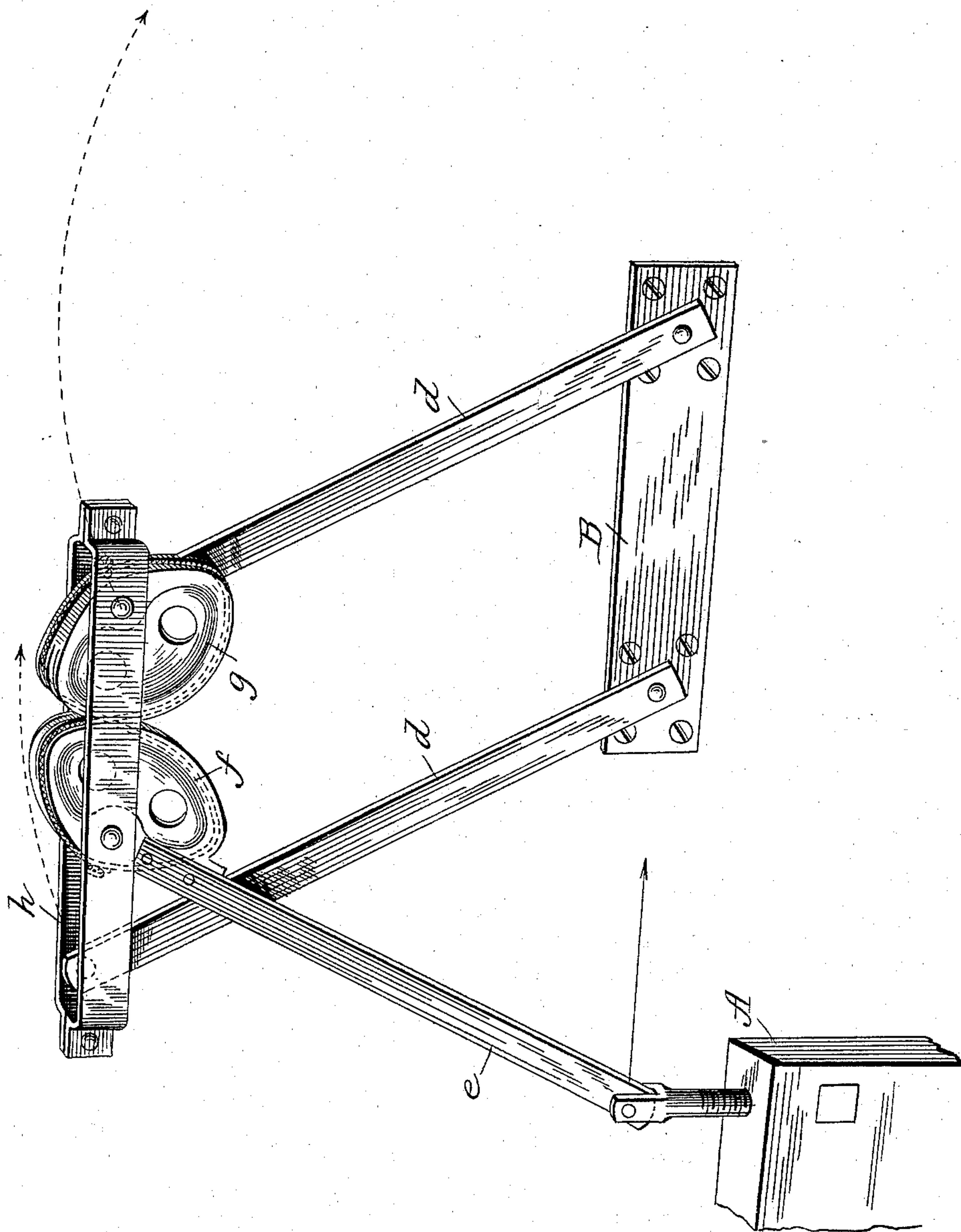


(No Model.)

W. J. LANE.  
SUPPORT FOR MOVING BODIES.

No. 477,556.

Patented June 21, 1892.



Attest  
Mallernaldson  
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Inventor  
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by Ellis Spear  
ATTY.



# UNITED STATES PATENT OFFICE.

WILLIAM J. LANE, OF POUGHKEEPSIE, NEW YORK.

## SUPPORT FOR MOVING BODIES.

SPECIFICATION forming part of Letters Patent No. 477,556, dated June 21, 1892.

Application filed November 23, 1891. Serial No. 412,816. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM J. LANE, a citizen of the United States of America, residing at Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Supports for Moving Bodies, of which the following is a specification.

My invention herein set forth consists in the particular construction of a support for a movable body, such as a sliding door, in which is required movement in a straight line and in which also easy movement is desirable.

The invention is illustrated in the accompanying drawing, in which the device and its connections are shown in perspective in a single figure.

In the drawing the moving object to be supported is shown at A and represents a part of a door, which is suspended by suitable pivoted connections from an arm *e*. A flexible frame is pivoted upon a base B, which is a plate adapted to be attached to a beam above the lintel of the door. In the frame are two parallel bars *d d*, pivoted on the base and connected at their upper ends by a pivoted connection, which is parallel with a straight line drawn through the pivots on the base. This connection of the upper ends is represented at *h* as made of two parallel bars united at their ends with a space between adapted to receive a pair of segments *f* and *g*. In the precise construction shown these segments are pivoted in the connection *h* and the upper end of one bar *d* is fixed to the segment *g* and that of the other to the segment *f*; but it is practically the same as if the bar and arm were pivoted directly, as the pivots are in line with the bar and arm and the distance between the pivotal points in the ends of the bars is the same as the distance between the pivotal points in the ends of the arm. The segments have opposing faces struck from their respective pivots as centers. They are connected by means of flexible straps or by wire ropes, as shown, these ropes being placed in grooves in the faces of the segments and secured in the backs thereof, one end of each

being attached to the back of one of the segments and the other to the back of the other segment, the two ropes crossing each other, but not in the same plane, at the meeting faces of the segments. Manifestly with this construction and arrangement of the parts the movement of one segment on its axis will impart equal rotary movement to the other in opposite direction. When, therefore, the frame stands in a perpendicular position, the lower end of the arm *e* will have its pivotal point manifestly in line with the pivotal point of the frame. As the frame is swayed in either direction the arm moves in the plane of the movement of the body which it supports and will be inclined at the same angle as that of the frame, but in the opposite direction, and by reason of the equality of the opposite angles and of the length of the bars and arm the pivotal point of the lower end of the arm is maintained in the same line. Its range of movement on each side the perpendicular is equal to twice the base of the triangle of which the bar to which it is connected forms the hypotenuse.

Only one edge of the door is represented as provided with the support; but it may be extended or duplicated as the object to be supported may require.

I do not broadly claim herein the flexible frame and arm, as these are claimed in an application filed by me in the United States Patent Office on the 21st day of November, 1891, Serial No. 412,626.

I claim as my invention—

A frame pivoted upon a base and capable of yielding in the plane of movement of the body which it supports, in combination with an arm pivoted upon said frame and connected thereto by segments and ropes or bands, said arm being arranged for connection with said moving body, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. LANE.

Witnesses:

F. W. DAVIS,  
E. M. MEEKS.