

No. 608,209.

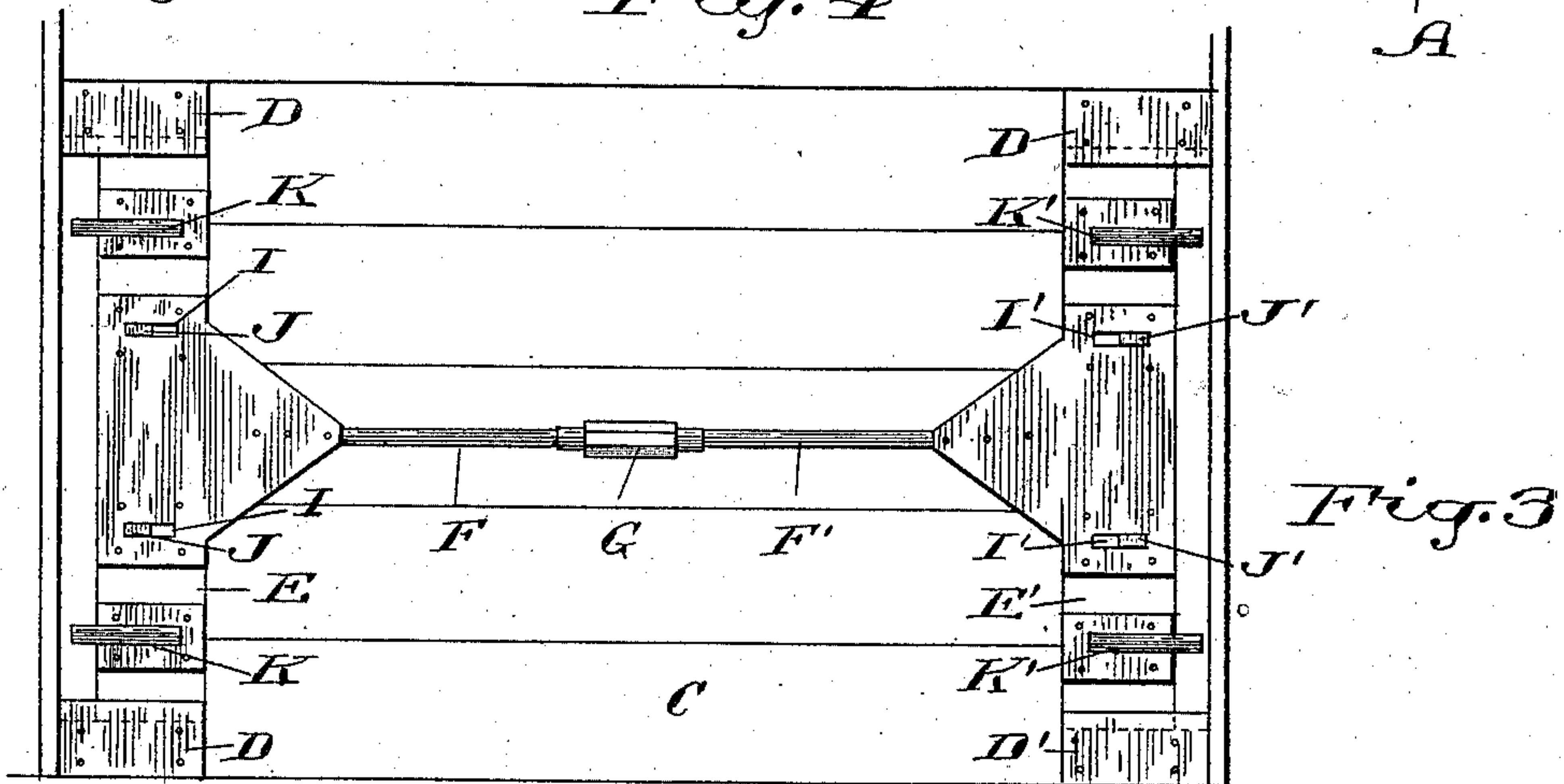
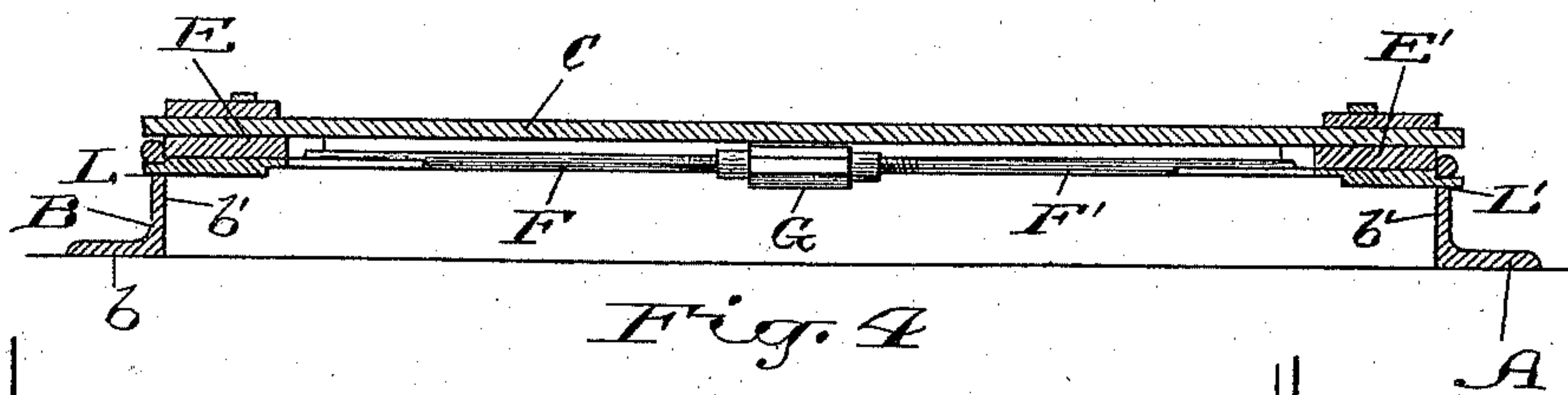
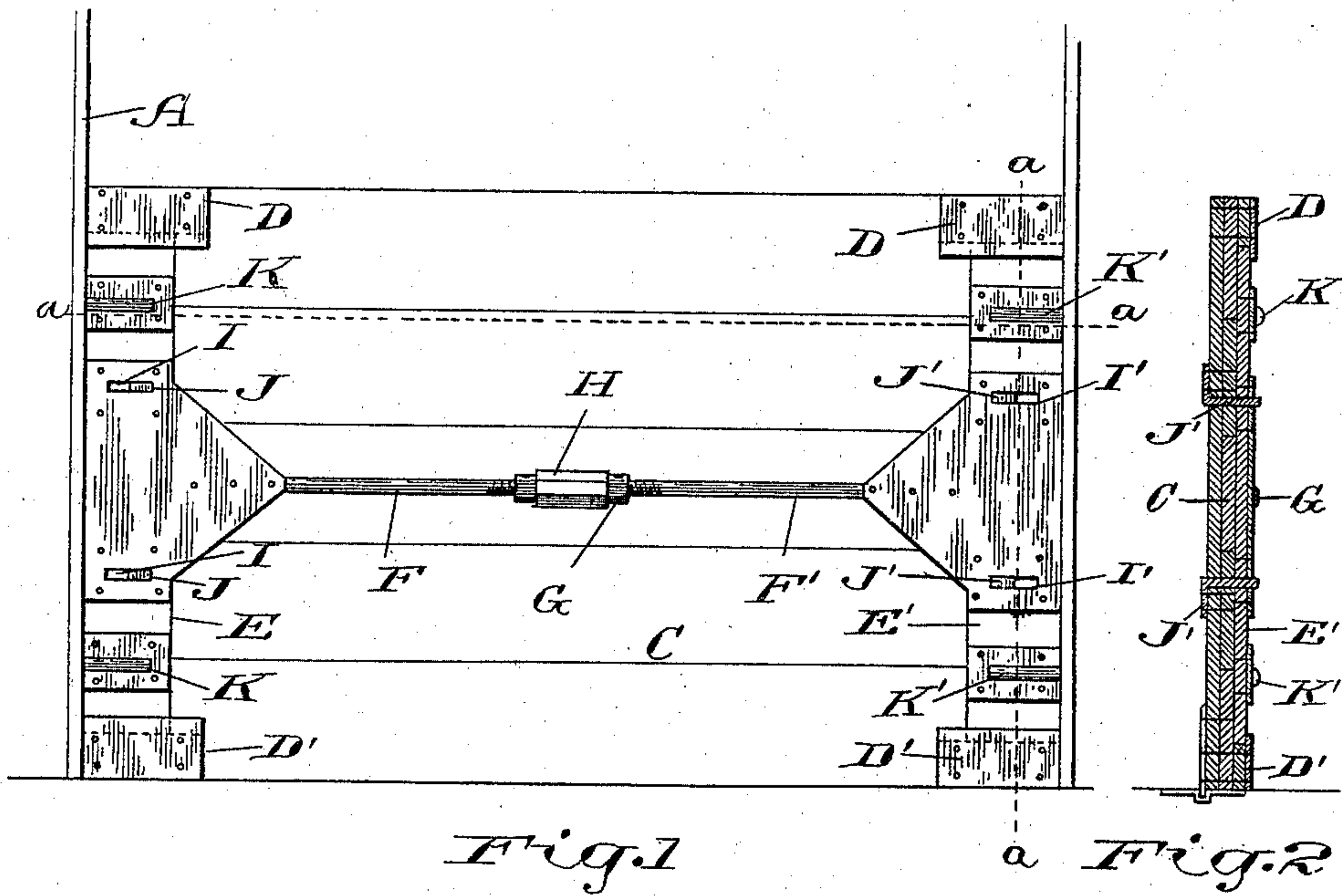
Patented Aug. 2, 1898.

J. McALLISTER.

GANGWAY DOOR FOR BOX CARS OR STEAMBOATS.

(Application filed Feb. 23, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES McALLISTER, OF OWEN SOUND, CANADA.

GANGWAY-DOOR FOR BOX-CARS OR STEAMBOATS.

SPECIFICATION forming part of Letters Patent No. 608,209, dated August 2, 1898.

Application filed February 23, 1898. Serial No. 671,228. (No model.)

To all whom it may concern:

Be it known that I, JAMES McALLISTER, of Owen Sound, in the county of Grey and Province of Ontario, Canada, have invented certain new and useful Improvements in Gangway-Doors for Box-Cars or Steamboats; and I hereby declare that the following is a full, clear, and exact description of the same.

Gangway-doors for box-cars and steamboats as now commonly used are held in position by guide strips or slides fastened to the sides of the door-frame or frame of the gangway. As these guides are necessarily larger than the gangway or door, it follows that they cannot either be grain-tight or water-tight, thus permitting in the case of a box-car of a loss of a portion of its grain contents and in the case of a steamboat of the admission of water to the hull.

The object of the present invention is therefore to devise a gangway-door for use on box-cars or steamboats simple of construction and capable of being easily operated and so arranged as to render the gangway or door comparatively grain-tight and water-tight; and the invention consists, essentially, of the device hereinafter more fully set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a front elevation showing a doorway or gangway with the door in position and the bolts locked. Fig. 2 is a vertical section on the lines *a a*, Fig. 1. Fig. 3 is a similar view to Fig. 1, showing the bolts withdrawn. Fig. 4 is a transverse section on the lines *a a*, Fig. 1.

Like letters of reference refer to like parts throughout the specification and drawings.

A represents the frame of the door or gangway. To the frame A, at each side of the doorway or gangway, is secured an L-shaped plate B, one flange *b* of which is bolted or otherwise fastened to the frame and the other flange *b'* of which stands inwardly at right angles to the frame. The plate B may extend to the full height of the frame A; but I do not confine myself to this construction, as I may make the plate B of only one-half the height of the doorway, the plate in this case extending from the floor of the car or deck of the boat upward.

C represents the gangway-door, which is made to overlap the flanges *b'* of the plates B.

D D represent two rabbeted guides at the top of the door C and located one at each side thereof, and D' D' represent two similar guides at the bottom of the door C and located one at each side thereof.

E represents a bolt-carrying plate sliding in the guides D D' at one side of the door, and E' represents a similar bolt-carrying plate sliding in the guides D D' at the opposite side of the door.

F F' represent two screw-threaded shanks connected, respectively, to the middle of the plates E E'. The shanks F F' are oppositely threaded, and uniting the ends of the shanks F F' is a turnbuckle G, by means of which the shanks are drawn toward or extended from each other. The turnbuckle G is provided with a hand-grip H, whereby it can be easily operated.

Formed in the plate E are two longitudinal slots I I, and connected to the door C are two pins J J, extending through the slots I I. By means of the slots I I and pins J J the movement of the plate E is properly directed—that is to say, the plate is prevented from any longitudinal or lateral motion other than that imparted to it by the turnbuckle. The bolt-carrying plate E' is provided with similar slots I' I', through which project pins J' J' similar to the pins J J and connected to the door C, the slots I' I' and pins J' J' directing the movement of the bolt-carrying plate E'.

The bolt-carrying plate E is provided with two bolts K K, located one at or near the top of the plate and the other at or near the bottom. The bolt-carrying plate E' is provided with similar bolts K' K'.

The flange *b'* of the plate B at one side of the door-frame is provided with bolt holes or sockets L L for the bolts K K, while the flange *b'* of the plate B at the opposite side of the door-frame A is provided with bolt holes or sockets L' L' for the bolts K' K'. By turning the turnbuckle in one direction the bolt-carrying plates E E' are moved toward the flange *b'* of the plates B, forcing the bolts K K' into their respective bolt-holes L L', firmly locking the gangway-door in position. By revolving

the turnbuckle in the opposite direction the bolt-carrying plates are drawn away from the flanges $b' b'$, withdrawing the bolts from their bolt holes or sockets and permitting of the ready removal of the gangway-door.

The door may be used in connection with box-cars or with steamboats and in both cases can be fitted to the doorway to render the box-car comparatively grain-tight and when used on a steamboat water-tight.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A gangway-door embracing in its construction a panel, two bolt-carrying plates, one located at each side of the panel, guides connected to the panel to slidably hold the bolt-carrying plates, a screw-threaded shank extending rearwardly from each of the bolt-carrying plates, a turnbuckle coupling the ends of the screw-threaded shanks, bolts connected to the bolt-carrying plates, an L-shaped plate connected to each side of the doorway or gangway, one flange of which is connected to the frame, and the other flange of which stands at right angles thereto, sock-

ets or holes formed in the flanges to receive the bolts when the panel is placed in position, substantially as specified.

2. In a gangway-door the combination of the panel, guides connected to the panel, bolt-carrying plates sliding in the guides, oppositely-threaded shanks extending rearwardly from the bolt-carrying plates, a turnbuckle coupling the ends of the screw-threaded shanks, slots formed in each of the bolt-carrying plates, pins connected to the panel extending through the slots, bolts carried by each of the bolt-carrying plates with the door-frame, L-shaped plates connected to the door-frame, and located one at each side of the doorway, one flange of each plate extending inwardly parallel with the opening, bolt holes or sockets formed in each flange to receive the bolts carried by the bolt-carrying plates, substantially as specified.

Owen Sound, February 16, A. D. 1898.

JAS. McALLISTER.

In presence of—

J. B. HAMILTON,
H. B. SMITH.