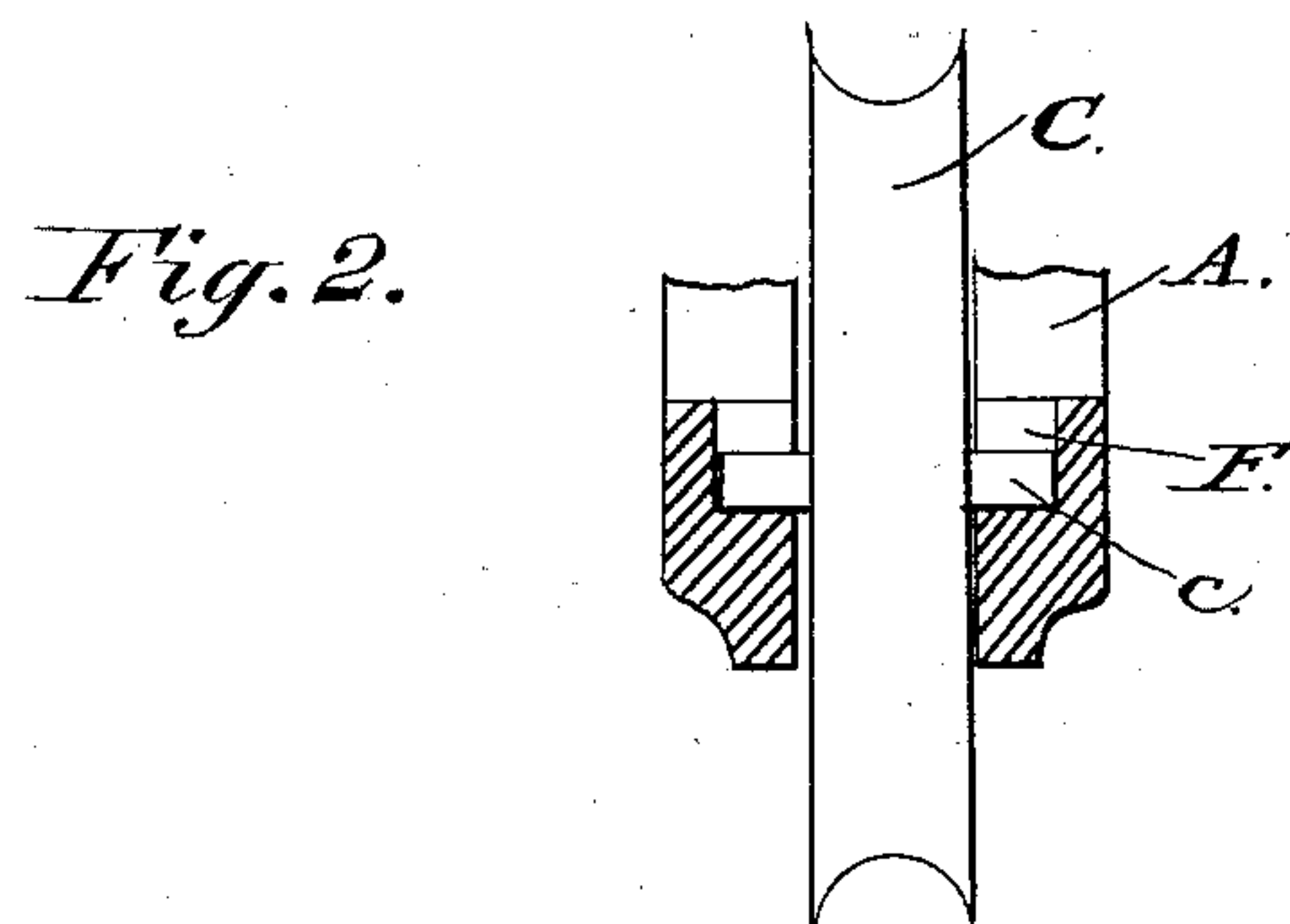
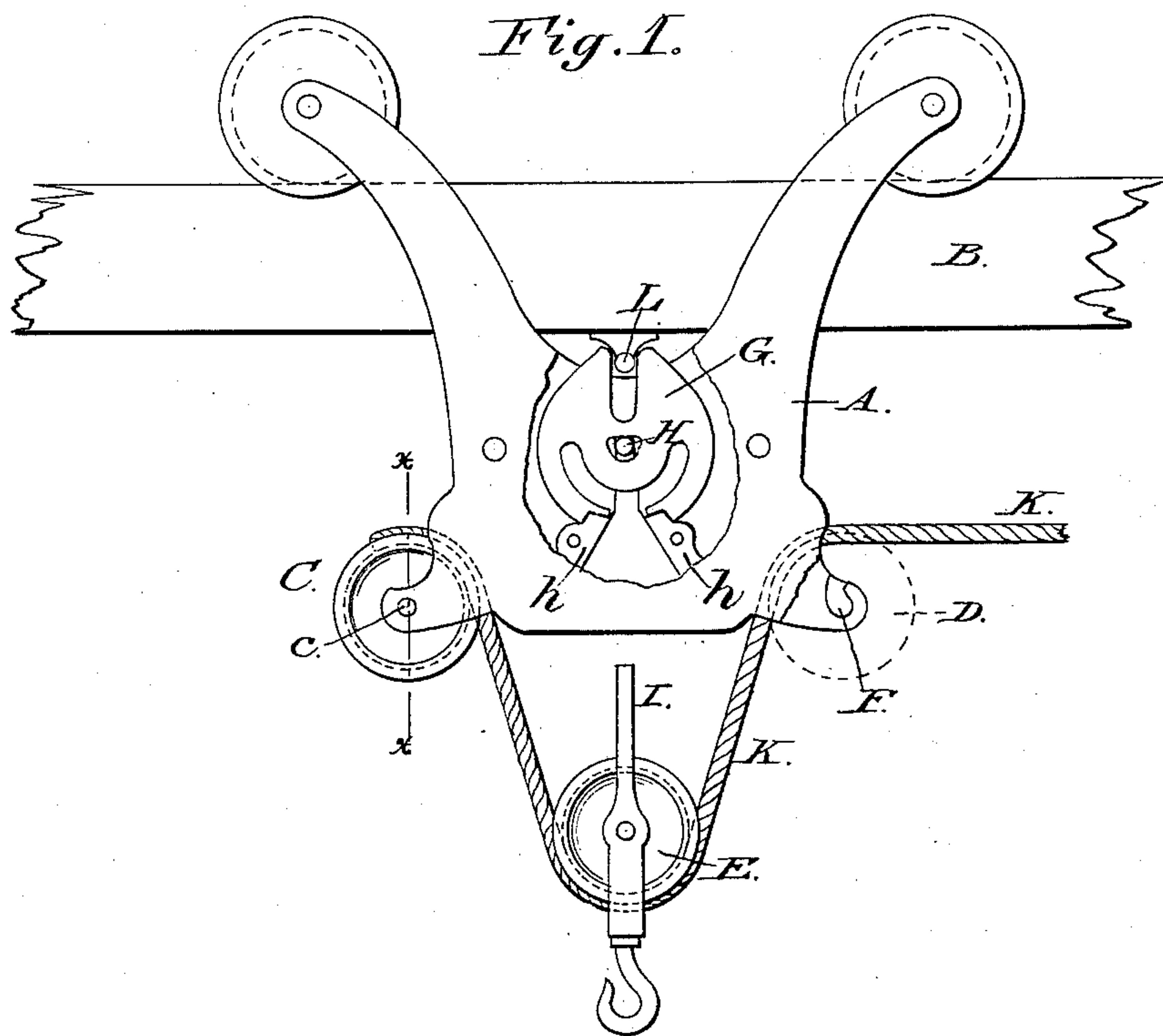


(No Model.)

M. W. CHAMBERLAIN.
HAY ELEVATOR AND CARRIER.

No. 318,085.

Patented May 19, 1885.



Attest:

Alfred Steiger.
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UNITED STATES PATENT OFFICE.

MARCUS W. CHAMBERLAIN, OF BRANCHVILLE, NEW JERSEY, ASSIGNOR OF
THREE-FOURTHS TO E. A. ELY AND F. S. ELY, BOTH OF SAME PLACE,
AND P. A. ELY, OF MADISON, NEW JERSEY.

HAY ELEVATOR AND CARRIER.

SPECIFICATION forming part of Letters Patent No. 318,085, dated May 19, 1885.

Application filed October 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, MARCUS W. CHAMBERLAIN, a citizen of the United States, and a resident of Branchville, in the county of Sussex and State of New Jersey, have invented certain new and useful Improvements in Hay Elevators and Carriers, of which the following is a specification.

My invention is an improved hay elevator and carrier, and relates more particularly to an improved mounting of the several pulleys used therein, and also to a peculiar pivoted bearing for the locking-bolt plate, forming a part of the carrier.

It consists, first, in mounting the pulleys around and upon which the operating-rope is made to work, and which are made with fixed journals secured thereto or integral therewith, in slotted journal-bearings so formed in the frame that while the loaded pulley is held in position while performing its office it may be readily removed from its bearings in the frame. The pulley-wheels are made interchangeable the one with the other in their respective bearings.

My invention furthermore consists in pivoting the bolt-plate upon a loose pin resting in vertical grooves or slots in the frame, and in making the opening through the plate larger than the pivotal pin, so as to allow a slight play or rocking of the plate upon the locking-lugs before the plate begins to revolve upon its pivot.

In the accompanying drawings, Figure 1 is a side elevation of a hay-carrier mounted upon a track, the frame being broken away in places to illustrate my invention; and Fig. 2 is a partly-sectional view of the slotted journal-bearing.

A is the carrier-frame, mounted upon a track-rail, B, and is provided with wheels or rollers resting on said rail.

C D are the pulley-wheels over and around which the operating-rope K is passed. This rope K is in all ordinary cases secured by one end to one of the pulleys, as at C, and is passed from there down around a pulley, E, mounted in a bail, I, to which the load is attached, and which serves, as hereinafter described, to secure the load in its elevated position. The pulleys C and D are fixed upon their shafts or

journals, and upon the inner faces of the frame are formed sockets or journal-bearings F, open toward the top, so that when it is so desired the pulleys may be removed from their bearings, and the pulleys being of the same form and size, they may be changed about from end to end of the frame. The bolt-plate G is mounted in the central part of the frame in such position that the locking hooks or bolts formed upon its lower sides will be in position to pass through the bail I when it is passed into the frame A. This plate is mounted upon a pin, H, which is itself mounted in vertical slots or grooves upon the inner faces of the frame A, so that it may have a limited vertical movement, but no movement from side to side. The opening in the plate G through which the bolt or pin H passes is enlarged laterally, so as to allow a limited side movement of the plate before it begins to rotate on its bearings, and this is found to greatly assist in moving the plate when it rests upon the locking-lugs *h h*, upon which the plate rests when the load is suspended therefrom. The stop-block L is secured to the track B in position to engage the vertical slot in the upper side of the plate G, and when the bolts upon the under side of G are in position to allow the entrance of the bail I, and resting with their ends against the locking-lugs *h h*, the block L serves to hold the frame A in position. So soon, however, as the bail I enters the frame and presses up on the plate, the carriage is free to move, and such movement will cause the plate G to rotate and pass one of its bolts through the bail I, and thus secure the load to the carriage.

When it is desired to free the bail I, with its load, from the carriage, the lateral movement of the plate G upon its pivotal pin, by reason of the laterally-enlarged opening through said plate, will greatly decrease the frictional contact of said plate with the lugs *h*, and allow a ready withdrawal of the bolt-plate from said bail.

Having described my invention, what I claim is—

1. In a hay elevator and carrier, the combination, with the carriage and the pulleys mounted therein, of the slotted journal-bearings F, formed within the frame, and adapted

to allow a ready removal of the pulleys and an exchange thereof the one for the other, substantially as and for the purpose set forth.

2. In a hay elevator and carrier, the combination, with its carriage and pulleys mounted therein, and with a pivoted bolt-plate, of a pivoted bearing for said bolt-plate, consisting of a loose pin mounted in vertical slots or grooves in the frame of the carriage and passing through a laterally-enlarged opening in

the plate, substantially as and for the purpose set forth.

Signed at Branchville, in the county of Sussex and State of New Jersey, this 29th day of September, A. D. 1884.

MARCUS W. CHAMBERLAIN.

Witnesses:

JOHN S. DECKER,

ROBT. A. PRICE.