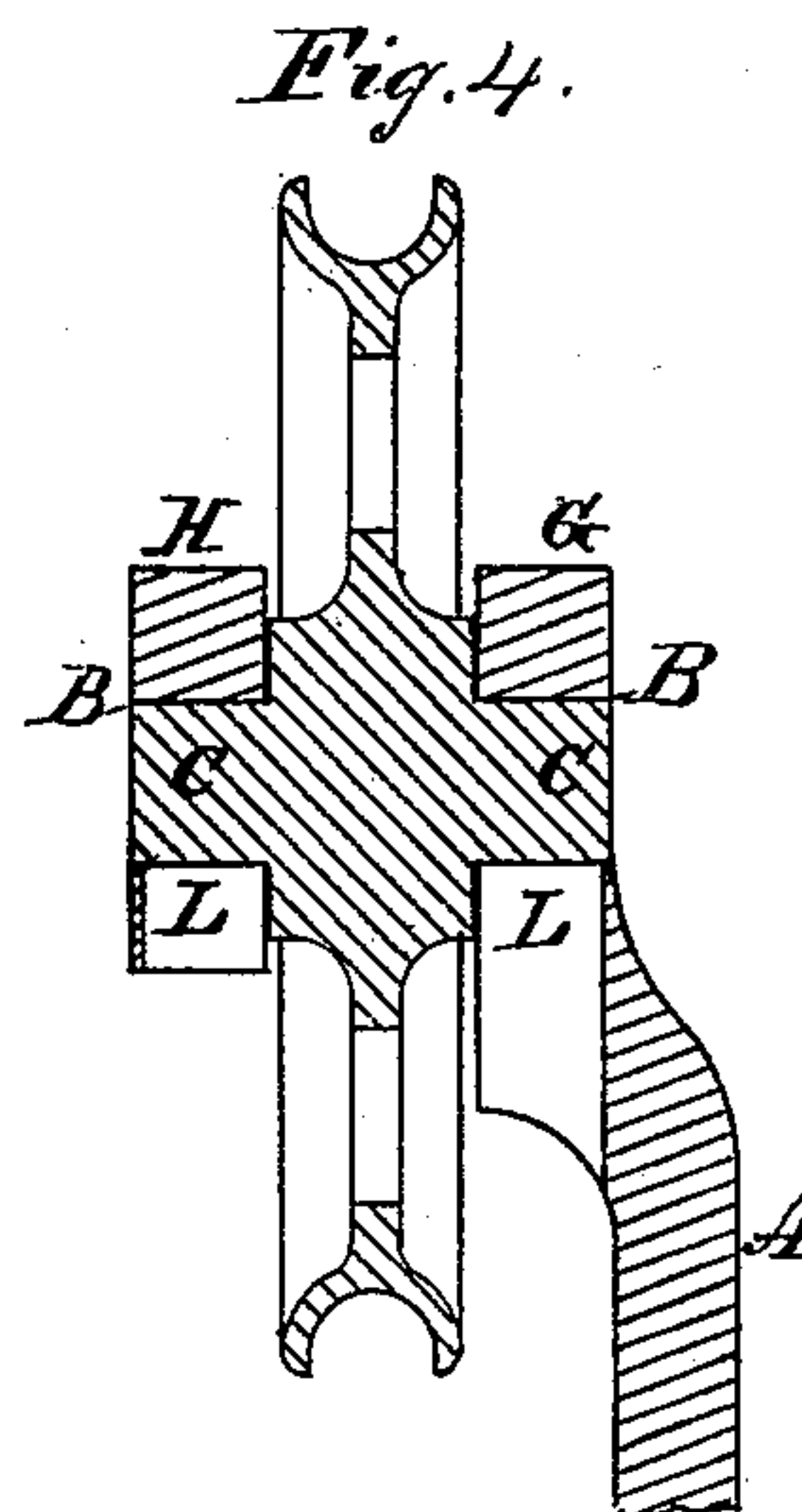
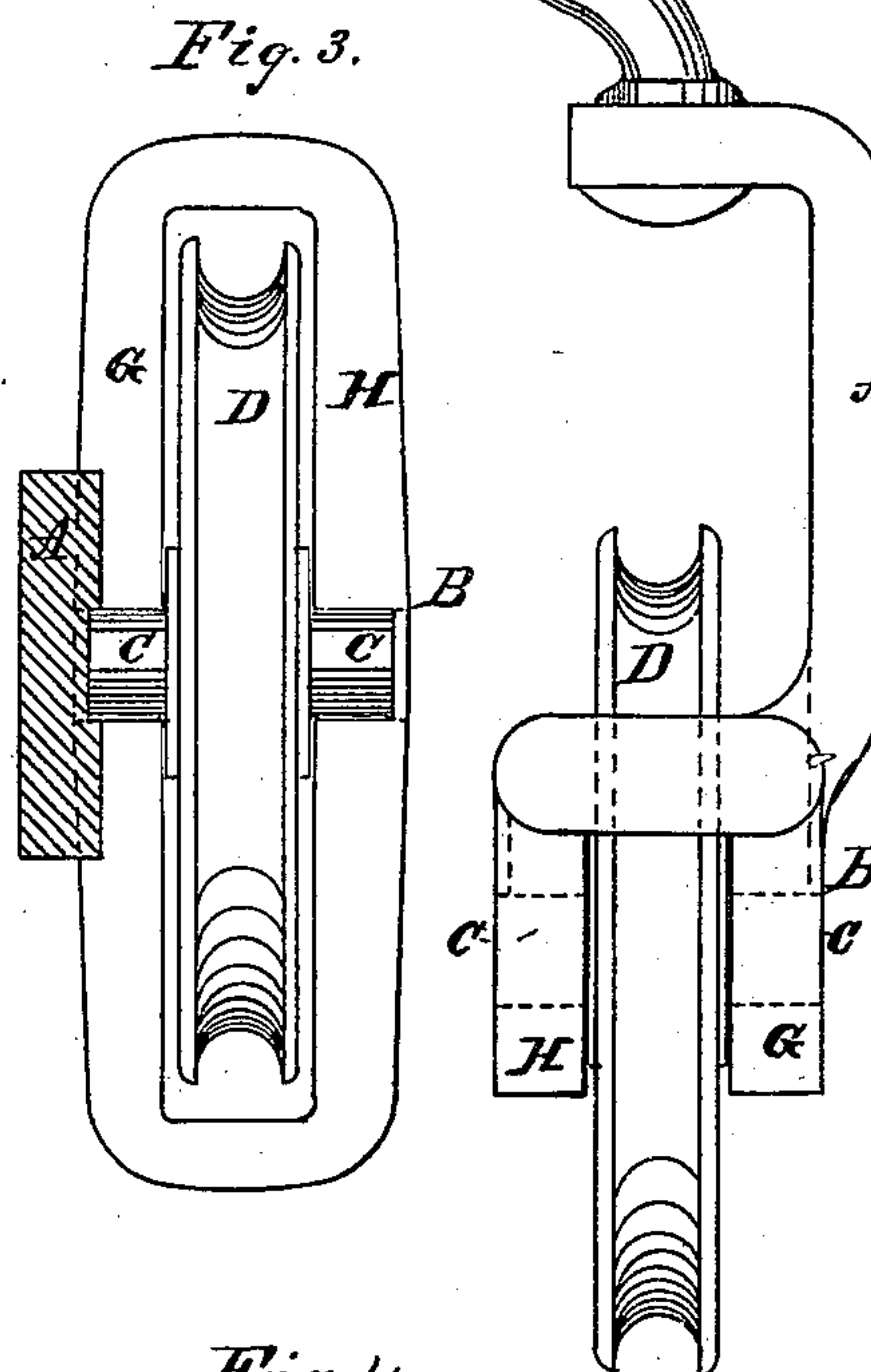
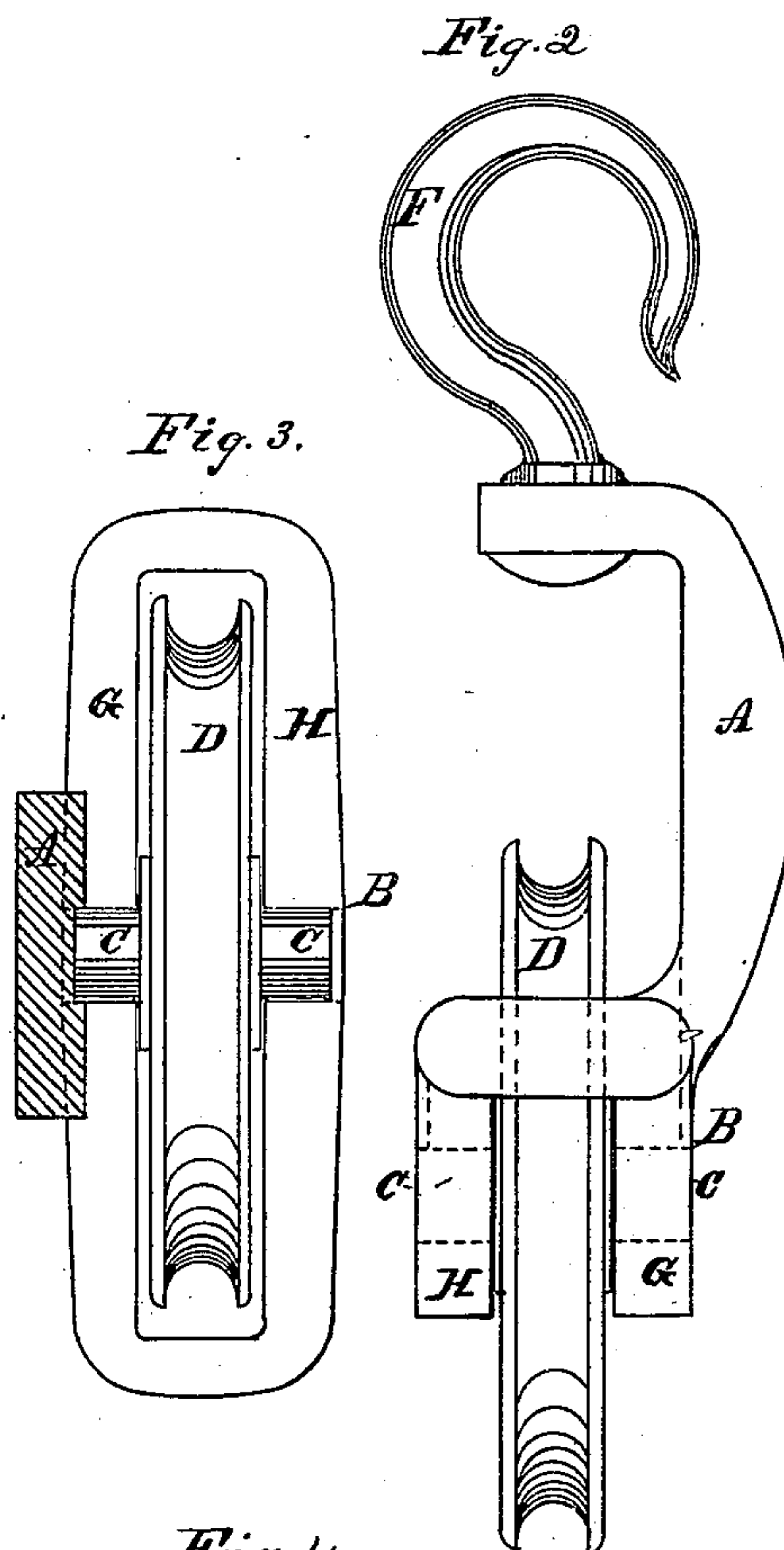
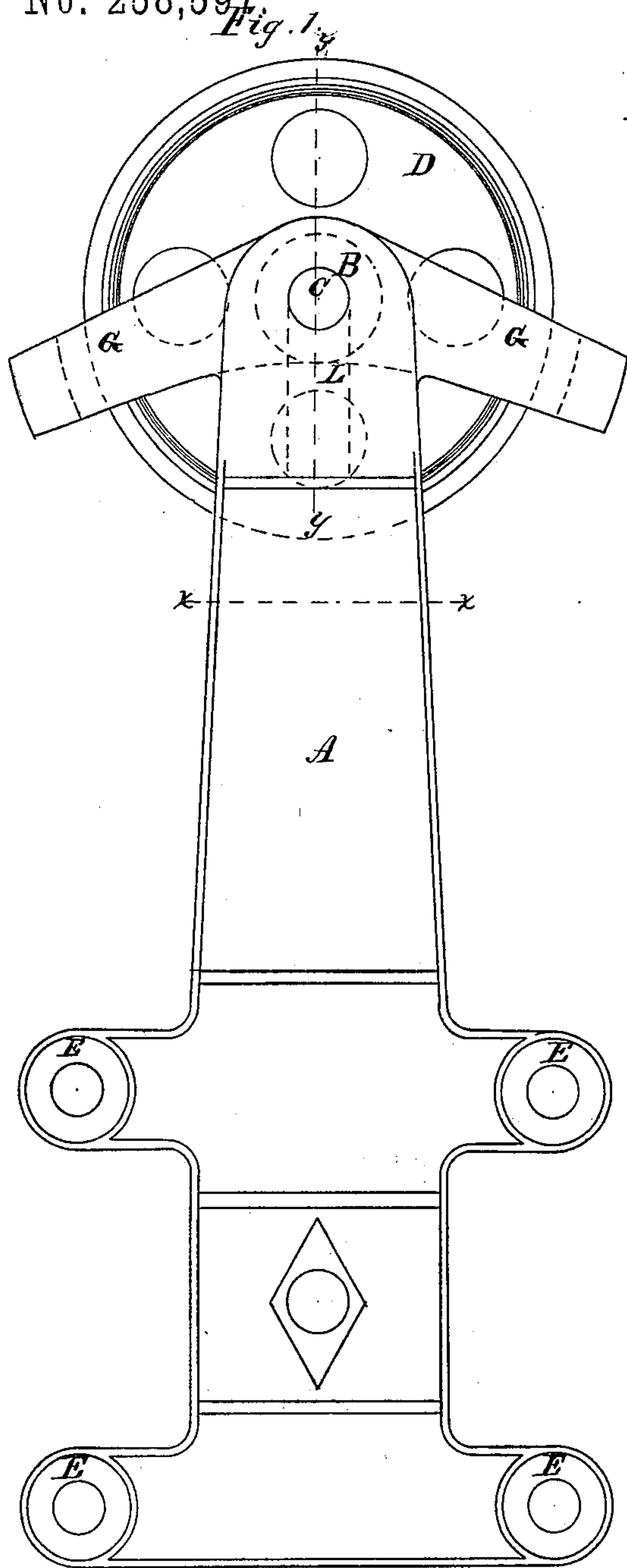


(Model.)

C. W. PIERCE.  
DOOR HANGER AND PULLEY.

No. 258,597.

Patented May 30, 1882.



Witnesses:  
O. J. Morgan  
S. H. Morgan

Inventor.  
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att'y



# UNITED STATES PATENT OFFICE.

CHARLES W. PIERCE, OF OAK HILL, NEW YORK.

## DOOR-HANGER AND PULLEY.

SPECIFICATION forming part of Letters Patent No. 258,597, dated May 30, 1882.

Application filed May 23, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. PIERCE, of Oak Hill, Greene county, New York, have invented a new and useful Improvement in Barn-Door Hangers and Sheave-Pulleys, of which the following is a specification.

This invention consists of a contrivance of the hanger block or frame and the roller or sheave-pulley and its axle whereby the said frame or block may be cast in one piece and the roller or sheave-pulley and its axle or journals may be cast together in another piece, and the two may be fitted together so as to be permanently connected in a manner preventing their disconnection, whether in use or in handling before being put to use, without any bolts, rivets, or other connecting devices, thus simplifying the construction, and thereby rendering the device less liable to get out of order, also cheapening the cost.

Figure 1 in the accompanying drawings represents a side elevation of a barn-door hanger constructed according to my invention. Fig. 2 is a front elevation of a sheave-pulley constructed according to the invention. Fig. 3 is a section of Fig. 1 on line *x x*, and Fig. 4 is a section on line *y y*.

A represents the bar, having axle-bearing holes B for the journals C of the roller D, and which in the case of a door-hanger extends downward a suitable distance, and has suitable lugs or branches, E, for bolting fast to the door, so as to suspend the latter from it; but when the device is contrived for a sheave-pulley said bar extends upward from said journal-bearing holes and terminates in a hook, F; or it may be an eye or other suitable device by which to suspend the device in the manner of suspending pulley-blocks. Together with the end portion of this bar having the axle-bearing holes lateral branches G are cast, which extend beyond the periphery of the roller or pulley D, then cross over and unite in the bar H, which connects them together parallel with the bar A and the branches E, and is also cast together with them, and is sufficiently distant therefrom to provide space between them and itself for the roller or pulley, thus making the frame for the said roller or pulley to work in of one piece, in which all the parts or members are joined in solid homogeneous metal cast together; or it may be

forged, if preferred. The roller or pulley D and its journals or axles *c* are also formed together in one solid construction—say by casting them together—to lessen the number of pieces, and especially to have the benefit of the wheel rolling on its axles, instead of on a pin through its center, to make it run truer and with less wear; and in order to enable the wheel and its axle to be entered into their positions and to secure them when so entered against escape afterward in handling or using the device the frame is cast with channels L in the insides of the bars A and H, entering to the bearing-holes B from the side of said holes opposite to that on which the strain or pressure is delivered in use, or any side other than that, and the depth of said channels is so gaged that the distance from the bottom of one to the bottom of the other is a little less than the length from end to end of the axle, the latter being made as much longer than said distance as the metal will safely spring without breaking, and is forced in, and thus secured against dropping out of place by the springing of the bars back when the ends of the axles have escaped from the grooves or channels into the holes.

Thus in a frame constructed wholly in one piece I am enabled to enter and permanently secure a roller and its axle or journals, also made in one piece, and thereby obtain a simpler and cheaper article of this kind than any heretofore made.

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

The block or frame of a door-hanger or sheave-pulley, consisting of the main bar A and its attachments, lateral branches G, and connecting-bar H, all arranged as described, and cast or otherwise formed in one solid piece, and provided with bearing-holes B for the pivots of the roller or sheave, and channels L for the entry of said pivots to said bearing-holes by springing the frame apart for said entry and closing thereafter to secure the pulley, substantially as described.

CHARLES W. PIERCE.

Witnesses:

W. J. MORGAN,  
S. H. MORGAN.