

(No Model.)

F. C. LANG.
LIQUID BEDDED KEEL BLOCK.

No. 341,582.

Patented May 11, 1886.

Fig: 1.

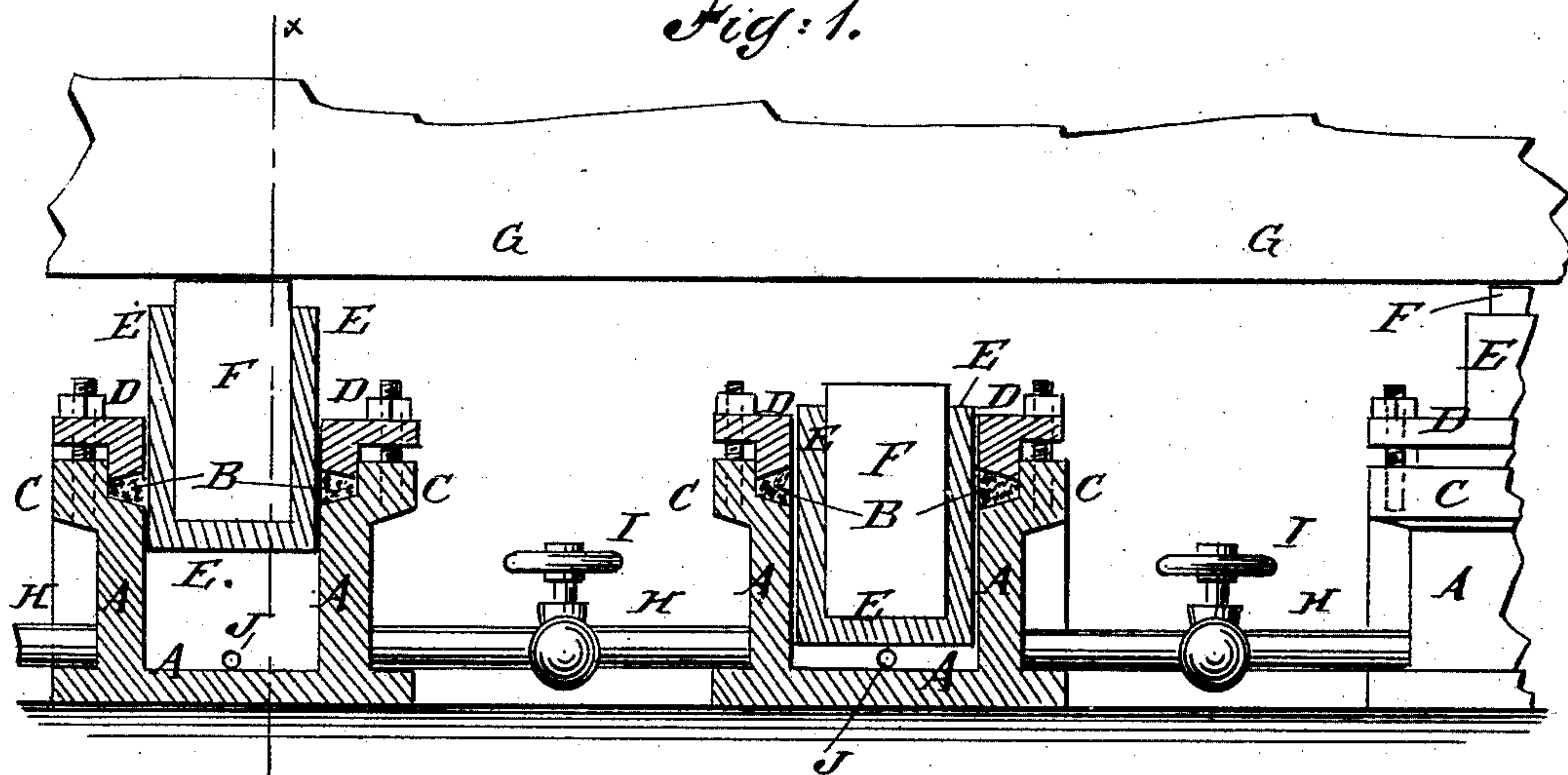


Fig: 2.

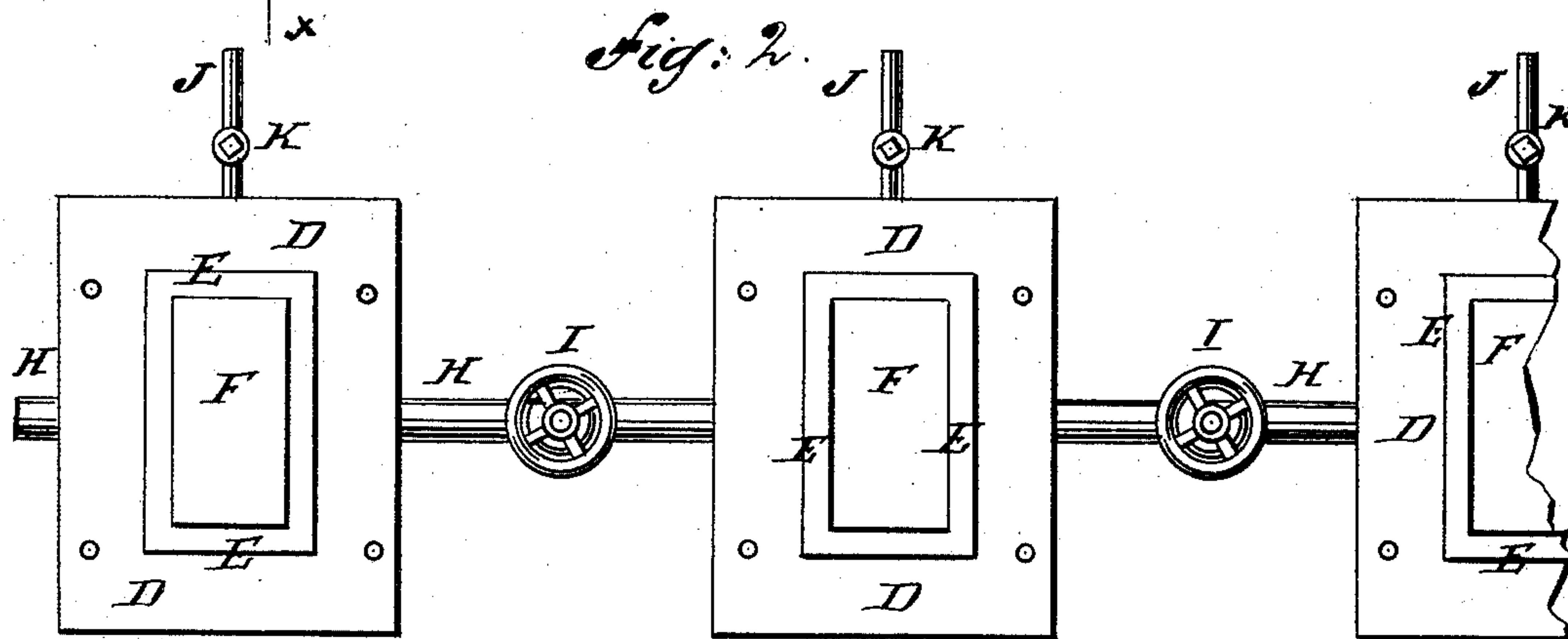
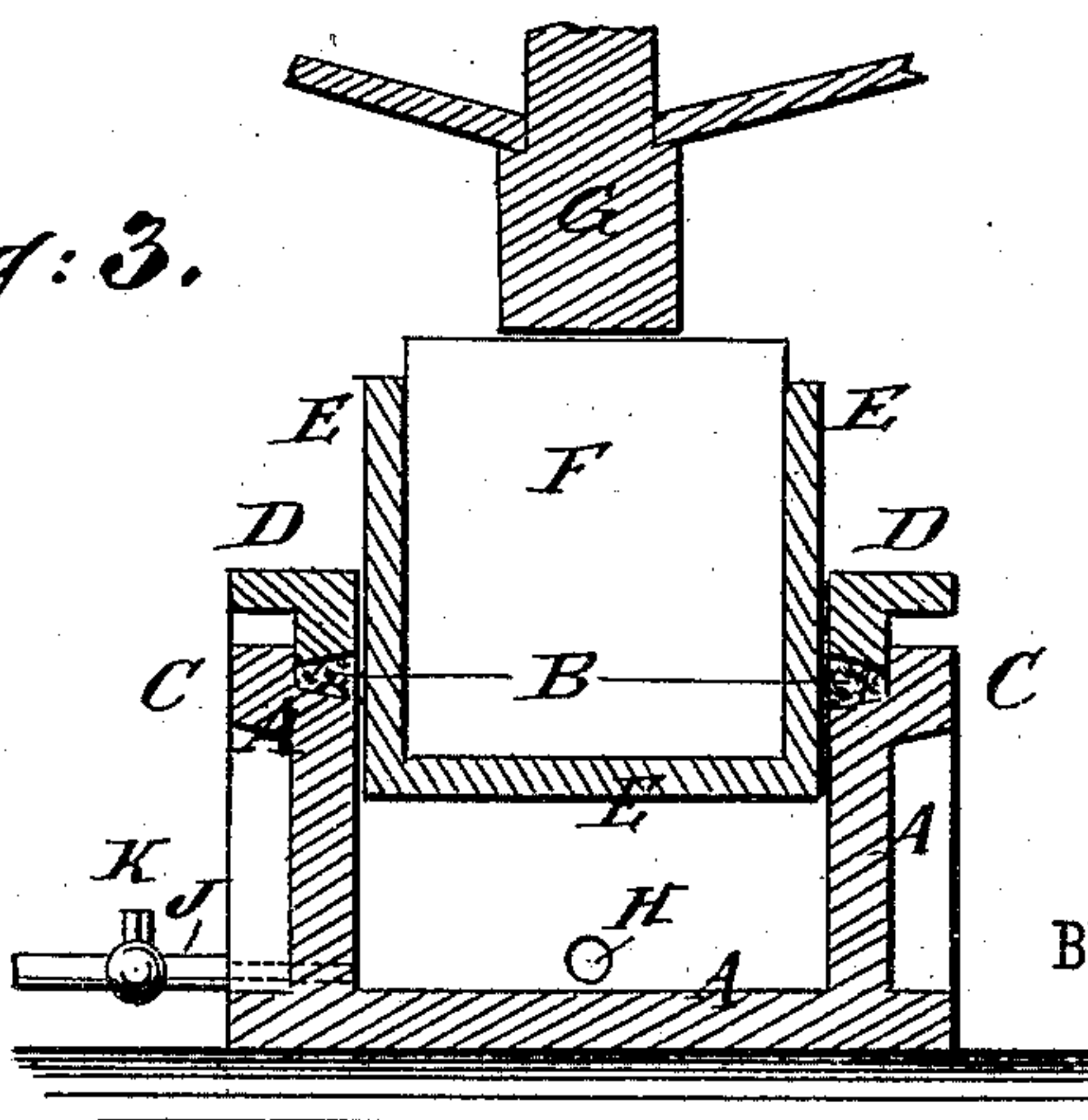


Fig: 3.



WITNESSES:

Chas. Viola
C. Sedgwick

INVENTOR:

F. C. Lang

BY

Murin & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK C. LANG, OF JERSEY CITY, NEW JERSEY.

LIQUID-BEDDED KEEL-BLOCK.

SPECIFICATION forming part of Letters Patent No. 341,582, dated May 11, 1886.

Application filed August 7, 1885. Serial No. 173,832. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK C. LANG, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and
5 useful Improvement in Liquid-Bedded Keel-Blocks, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification,
10 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of two of my improved liquid-bedded keel-blocks, and showing a side elevation of a part of a
15 third keel-block and of a keel of a vessel. Fig. 2 is a plan view of two keel-blocks and a part of a third. Fig. 3 is a sectional front elevation of one of the keel-blocks and a part of a vessel's keel, taken through the line *x x*,
20 Fig. 1.

The object of this invention is to provide liquid-bedded keel-blocks for supporting vessels in dry-docks, constructed in such a manner that they will adjust themselves to any
25 inequalities of a vessel's keel, and that any particular block can be removed to give access to the part of the keel above it, and again replaced when the said part of the keel has been repaired, and which shall be simple in
30 construction and convenient and reliable in use.

The invention consists in the construction of the various parts of the keel-blocks, as will be hereinafter fully described, and then claimed.

35 A represents a cast-iron case of any desired or convenient size, and which I prefer to make rectangular in form. The case A is open at the top, and is rabbeted around the inner side of its top to form a stuffing-box, B, and has a
40 flange, C, around the outer side of its top to receive the bolts that fasten the gland D of the said stuffing-box in place.

E is a hollow follower which is fitted into the case A, and within which is placed a
45 wooden block, F, projecting above the said follower E, for the keel G of the vessel to rest upon. A series of the cases A are arranged along the central line of the dry-dock, to which they are firmly secured, and are connected by

pipes H, so that the kerosene-oil or other liquid used can pass readily from one case A to the others. The pipes H are each provided with a valve, I, so that each pipe H can be closed, when desired, and the passage of the liquid through it prevented.

Each case A is provided with a short pipe, J, having a valve, K, as shown in Figs. 2 and 3. With this construction when the cases A have been supplied with liquid, and the keel of the vessel is in place upon the followers E
55 F, the said followers will adjust themselves to any inequalities in the said keel, so that all parts of the keel will be equally supported, the liquid passing freely from one case to another.

In case access is desired to any particular part of the keel G, the valves I upon the opposite sides of the case A, beneath the said part, are closed, the valve K is opened, and the liquid within the said case is drawn off through
60 the pipe J, allowing the follower E F to descend, leaving the desired part of the keel exposed. When the exposed part of the keel has been repaired, the liquid can be forced back into the empty case A through the pipe
65 J, by a pump or other suitable means, to force the follower E up against the keel when the valve K is closed and the valves I are opened, so that all parts of the keel will be again
70 equally supported.

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

The liquid bedded keel blocks, constructed substantially as herein shown and described,
75 and consisting of the cases A, provided with stuffing-boxes B D, followers E F, connecting-pipes H, having valves I, and outlet-pipes J, having valves K, substantially as herein shown and described, whereby all parts of the keel
80 will be equally supported, and any desired part of the keel can be exposed, repaired, and again supported, as set forth.

FREDERICK C. LANG.

Witnesses:

E. M. CLARK,
EDGAR TATE.