

Henry Van Keuren.
 IMPROVEMENT IN FLOATING TIDAL DRY DOCKS
 PATENTED JUL 18 1871

117223

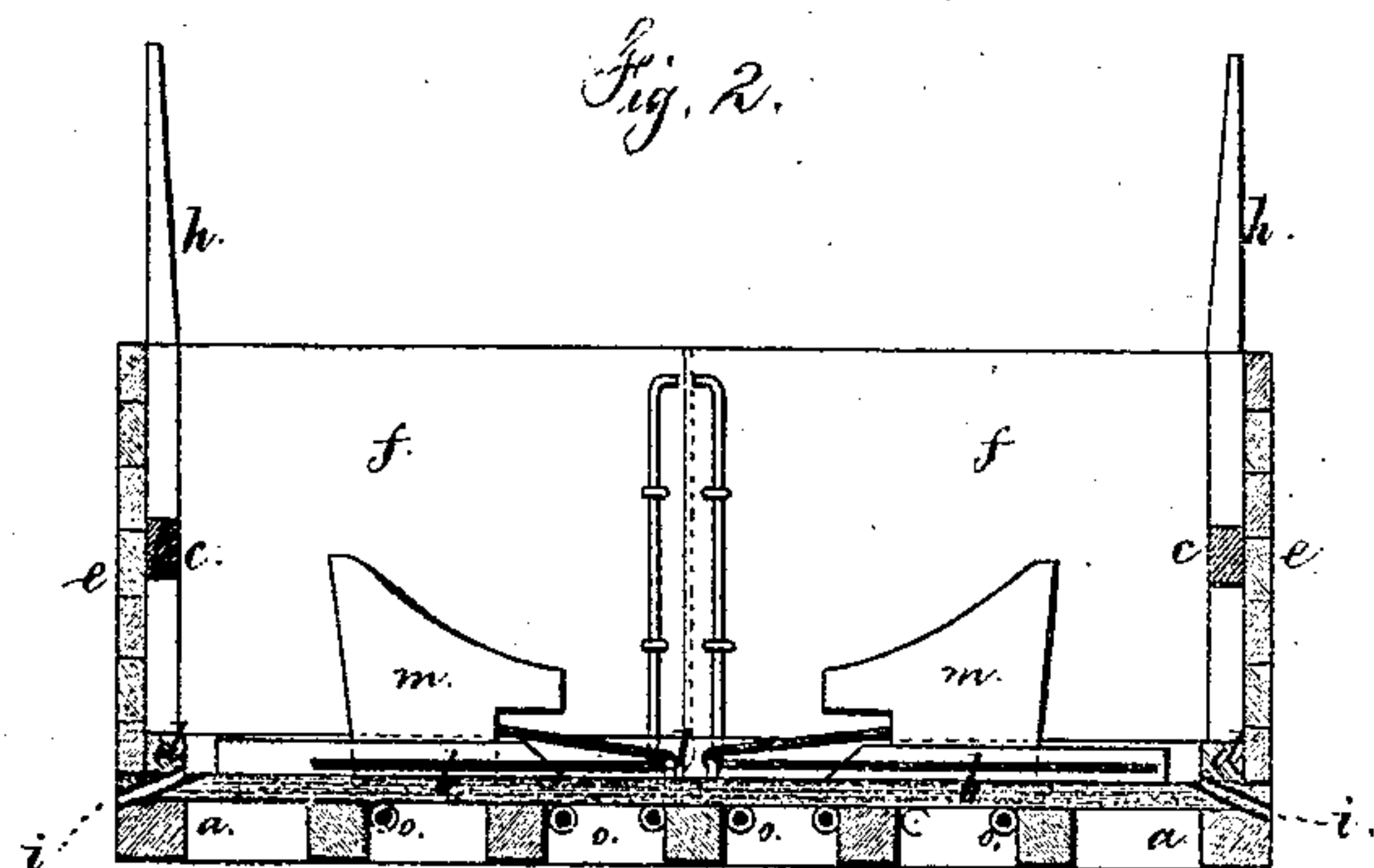
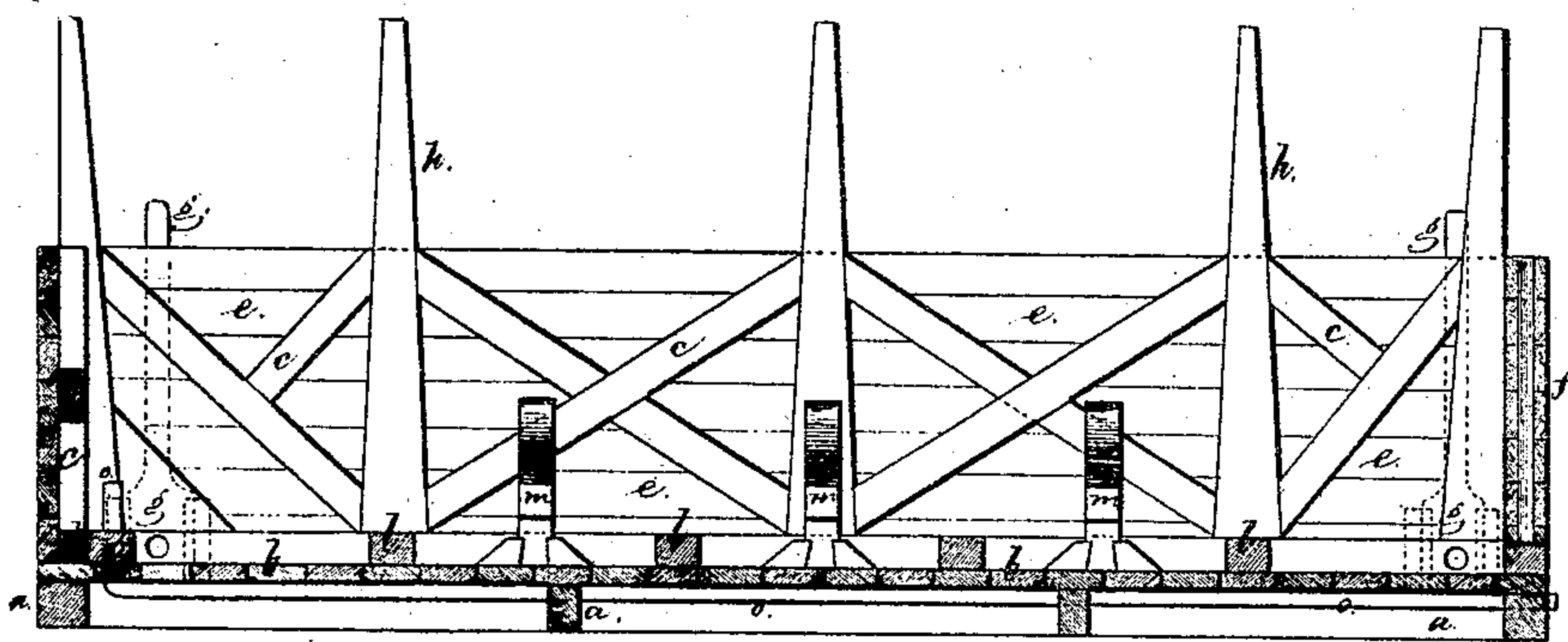


Fig. 1.



Witnesses,

Chas. A. Smith
 Geo. A. Walker

Henry Van Keuren

Lemuel W. Serrell atty.

UNITED STATES PATENT OFFICE.

HENRY VAN KEUREN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO HIMSELF
AND WILLIAM VAN KEUREN, OF SAME PLACE.

IMPROVEMENT IN FLOATING-DOCKS.

Specification forming part of Letters Patent No. 117,223, dated July 18, 1871.

To all whom it may concern:

Be it known that I, HENRY VAN KEUREN, of Jersey City, in the county of Hudson and State of New Jersey, have invented and made an Improvement in Floating Tidal Dry-Docks; and the following is declared to be a correct description of the same.

Dry-docks have before been made to float so as to be easily taken from place to place, and the same have been adapted to receiving canal-boats and vessels at high tide, so that the dock would become empty, or nearly so, at low tide, and rest upon a beach, sand-bar, or flat, so that repairing could be proceeded with and, when completed, the vessel could be floated out at high tide. My invention relates to this class of docks, and is made for the purpose of removing difficulties that have been experienced in repairing the dock itself. Docks of the character before mentioned are peculiarly liable to become leaky, because the bottom upon which they rest is more or less irregular, and the planking upon the bottom is sometimes perforated by resting upon a stone or other hard substance; and, to put in a new piece of planking or to calk the bottom the dry-dock itself had to be put into a larger dry-dock or drawn up on ways, so as to get at the bottom. In my dry-dock the planking is upon the upper side of a frame-work of timbers instead of being below the same, and hence is not so much exposed to injury; and the dock can be calked from the inside at any time, instead of requiring to be hauled up to get at the outside; and the planking can be repaired from the inside even while the dock is in use.

In the drawing, Figure 1 is a section longitudinally of my improved dock, and Fig. 2 is a cross-section of the same.

The bottom of the dock is made of a frame-work, *a*, of the required size and strength, upon which planking *b* is fastened, and the sides of the dock are made of frame-work *c*, above the

plank-shear *d*, with planking *e* outside of the same. The swinging gates *f* are provided at one end somewhat similarly to the gates of a canal-lock, and *g g* are flood-doors or gates to allow water to pass in or out. *h* are the mooring-posts, all of usual character. The planking *b*, being upon the frame *a*, can easily be repaired or calked from the inside. It is necessary, however, to stop the seams beneath the plank-shear *d*, for which purpose a hole is bored in the seam between each two planks and a stop-water plug, *i*, inserted. The outer sides of the dock can be calked at low water; hence the calking can extend from the stop-water plugs *i* in all the seams above said plugs, in order to make the entire dock water-tight. The keel of the vessel or the flat bottom is to rest upon the thwarts or cross-bearers *l*, and shifting blocks *m m* are employed to steady the vessel by being drawn under the bilge. The sheet-metal air-tubes *o o*, running along between the timbers of the frame *a* and rising at one end through the bottom of the dock, are provided with screw-caps at one or both ends, and are used to regulate the buoyancy of the dock, as these tubes can be allowed to fill with water or to empty at low water, and be closed by the screw-caps.

I claim as my invention—

1. The frame *a*, forming the bottom of the floating tidal dry-dock and receiving upon its upper side the planking *b*, with the stop-water plugs *i* beneath the plank-shear, for the purposes and as set forth.

2. The air-tubes *o o* between the timbers of the frame *a* and passing up through the bottom of the dock and provided with movable caps, as and for the purposes set forth.

Signed by me this 4th day of April, 1871.

HENRY VAN KEUREN.

Witnesses:

CHAS. H. SMITH,
GEO. T. PINCKNEY.