No. 608,189. Patented Aug. 2, 1898.

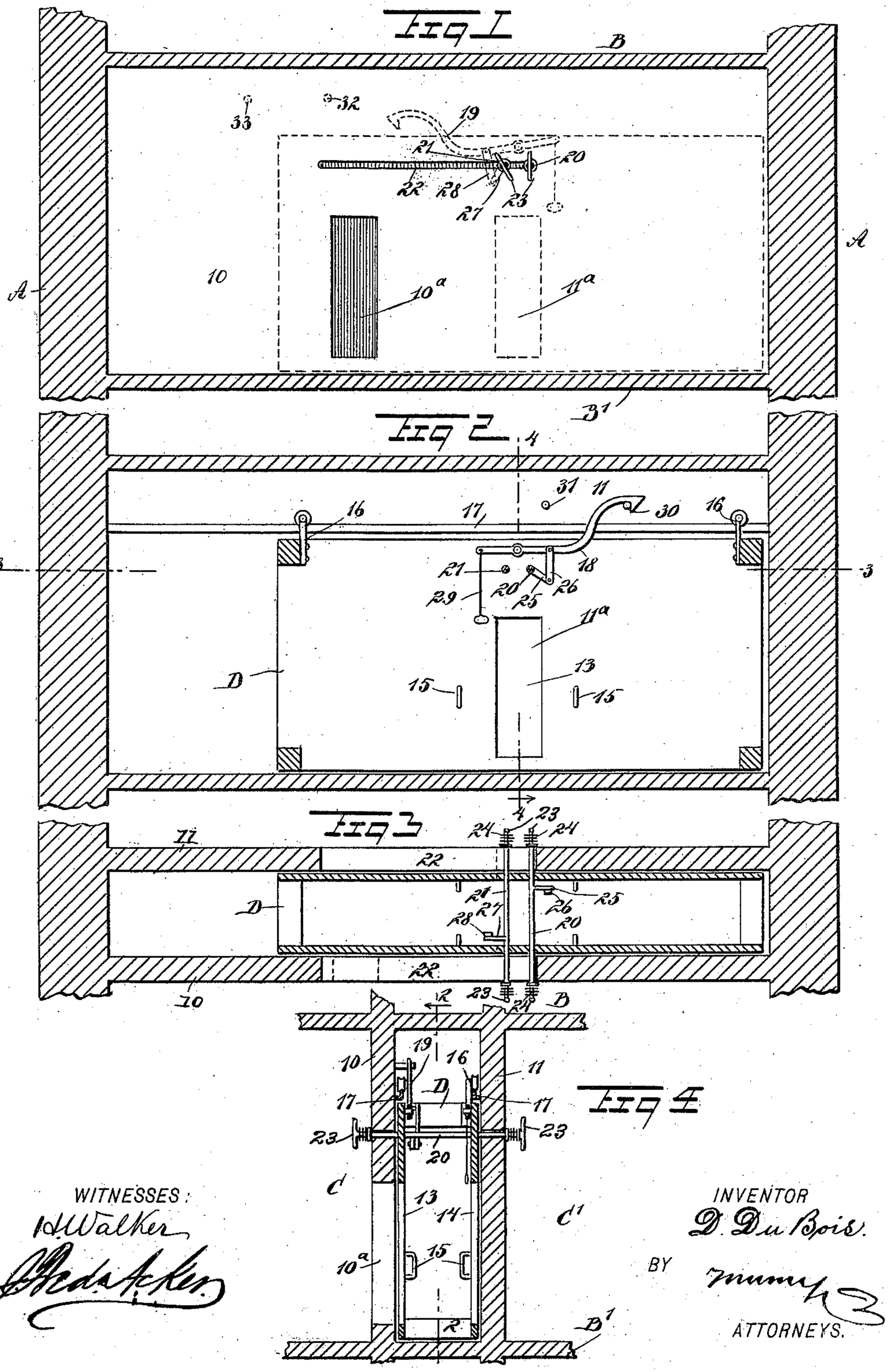
D. DU BOIS.

PASSAGEWAY FOR BULKHEADS AND PARTITIONS.

(Application filed Sept. 22, 1897.)

(No Model.)

Fig 1



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PASSAGE-WAY FOR BULKHEADS AND PARTITIONS.

SPECIFICATION forming part of Letters Patent No. 608,189, dated August 2, 1898.

Application filed September 22, 1897. Serial No. 652,527. (No model.)

To all whom it may concern:

Be it known that I, DALLAS DU BOIS, of Montclair, in the county of Essex and State of New Jersey, have invented a new and Improved Passage-Way for Bulkheads and Partitions, of which the following is a full, clear, and exact description.

The object of the invention is to provide a device whereby communication may be obtained between one compartment and another and yet a water and fire proof division be maintained between said compartments.

Another object of the invention is to provide a means whereby when the door in one compartment is opened the door in the other compartment will be closed and whereby the doors in both compartments may be closed or sealed when desired, and also to provide a means whereby a single person may operate the device conveniently and expeditiously.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a vertical section through a compartment, illustrating a partition therein and likewise illustrating the device applied to the partition. Fig. 2 is a vertical section between two partitions, taken practically on the line 2 2 of Fig. 4, the section being likewise taken through the device for establishing communication between the compartments. Fig. 3 is a horizontal section taken on the line 3 3 of Fig. 2, and Fig. 4 is a vertical transverse section taken substantially on the line 4 4 of Fig. 2.

A may represent either the hull of a vessel or the wall of a building, and B the top, and B′ the bottom, of one or more compartments therein. Two partitions 10 and 11 are carried from side to side of the structure A, a space intervening the two partitions. The partitions are shown as dividing the structure into two compartments C and C′. It is the purpose of the invention to provide a water-tight and fireproof connection between the two compartments C and C′. This is accomplished by locating in the space between the partitions a car D. The partition 10 is provided with a doorway 10^a, and the partition 11 is provided with a doorway 11^a, the two doorways 10^a and 11^a being out of transverse alinement, as shown in Fig. 1. The car D is preferably made without a top, and especially without a bottom, and is free to travel in the space between the two partitions. Ordinarily the car D is supported by hangers 16, carrying suitable rollers or wheels, which rollers or wheels travel on tracks 17, attached to the opposing faces of the aforesaid partitions 10 and 11. The car is provided at its center with oppositely-located doorways 13 and 14.

Upon the inner face of one side of the car a lock-lever 18 is fulcrumed, the latch end of the lever being preferably curved above the car, and upon the corresponding surface of the opposing face of the car a like lever 19 is pivoted, the two levers facing in opposite directions, as shown in Figs. 1 and 2. Two shafts 20 and 21 are transversely mounted in the car, the shafts being of such length as to extend through and beyond horizontal slots or openings 22, made in the partitions 10 and 11, as illustrated in Figs. 1 and 3. Each of the shafts 20 and 21 is preferably provided with a T-handle 23 at its outer end, and the shafts are held in predetermined position by springs 24 at their ends, as illustrated in Figs. 3 and 4. The shaft 20 is provided with a crank-arm 25, which is connected by a link 26 with the lock or latch lever 18 between the latch-head and its pivot, while the opposing shaft 21 is provided with a similar crank-arm 27, extending in opposite direction to the crank-arm 25, the crank-arm being connected by a link 28 with the lock or latch lever 19, as shown in dotted lines in Fig. 1.

Two pins 30 and 31 are located upon the inner face of the partition 11, near one end thereof, and corresponding pins 32 and 33 are projected from the opposing partition 10 at the opposite end, so that the two sets of pins 30 and 31 and 32 and 33 are diagonally opposite. These pins are adapted for engagement by the latch-heads of the lock-levers, and when the said lock-levers are in engagement with the end pins the car will be so held that one of the doorways therein will register with one of the door-openings in

the partitions, the doorway in the opposite partition being closed. When a lock-lever, however, is in engagement with one of the inner pins—the inner pin 31, for example—the car will be locked in such position that all communication will be cut off from the compartment C to the compartment C′; but it will be understood that by turning either the shaft 20 or 21, with which the lock-latch may be connected, and moving the shafts along the slots 22 the car may be moved between the partitions, and one of its door-openings may be made to register with an opening in either the partition 10 or the partition 11, so that a person in the compartment having communication with the car may enter said car. The car is then moved by the operator grasping handles 15, for example, attached to the car, until the opposite door-opening in the car is brought in registry with the door-opening in the opposite partition, whereupon the person in the car may step out into the opposing compartment C′.

It is evident that this device is equally applicable to the partitions in buildings as to the bulkheads in ships and like structures and that a packing may be provided between the car and the patitions, between which it moves, which will render the communication between the compartments either fireproof or water-tight. In the event a person is within the car and the lock-latch is in locking connection with a pin or stud on the partition disengagement between the lock-latch and said pin or stud may be readily effected by drawing down on the cord, rope, or chain 29.

I desire it to be understood that if the device is to be used on land the lock-latches need not be employed, the lock-latches being especially designed to hold the car in required position upon the vessel when the vessel is affected by the motion of the water. The shafts 20 and 21 are shown as extending across the car. These shafts, however, may be and preferably are made to extend through but one partition and one side of a car. The device is intended to be worked from the inside almost exclusively, being worked from the outside only when both door-openings in the car are out of registry with the door-openings in the partition.

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

1. The combination, with opposing partitions provided with openings out of registry with each other, of a car mounted to travel between the partitions and provided with opposing openings, for the purpose set forth.

2. The combination, with partitions having a space between them, the partitions being provided with openings out of transverse registry, of a car mounted to travel in the space between the partitions, the car having opposite openings, and means for shifting the car, substantially as described.

3. The combination, with opposing partitions having openings in opposite sides diagonally arranged in relation to each other, of a car mounted to travel between the partitions, the car being provided with opposing openings, means, substantially as described, for operating the car, and a locking device for the car, substantially as described.

4. The combination, with opposing partitions, each having an opening, the openings in the partitions being in diagonal arrangement with relation to each other, of a car held to travel between the partitions, lock-latches pivoted to the said car, facing in opposite directions, spring-controlled shafts arranged to raise or lower the said lock-latches, and keepers carried by the partitions, adapted for engagement with the said lock-latches, for the purpose specified.

5. The combination, with opposing partitions having openings therein, the openings in the partitions being in diagonal arrangement in relation to each other and the said partitions being provided with longitudinal slots, of a car held to travel between the partitions, said car being provided with oppositely-located openings, shafts carried by the said car and extending outward through the openings in the partitions, lock-latches located at opposite sides of the car, facing in opposite directions, crank-arms projected from the shafts, and link connections between the crank-arms and the lock-latches, and keepers located upon the partitions, arranged for engagement with the lock-latches, the keepers being upon the inner faces of the partitions and located at diagonally opposite ends, as and for the purpose specified.

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