No. 871,467. PATENTED NOV. 19, 1907.

T. H. ALCORN.

KEEL BLOCK FOR SHIPS.

APPLICATION FILED OCT. 4, 1906.

Fig. 1.

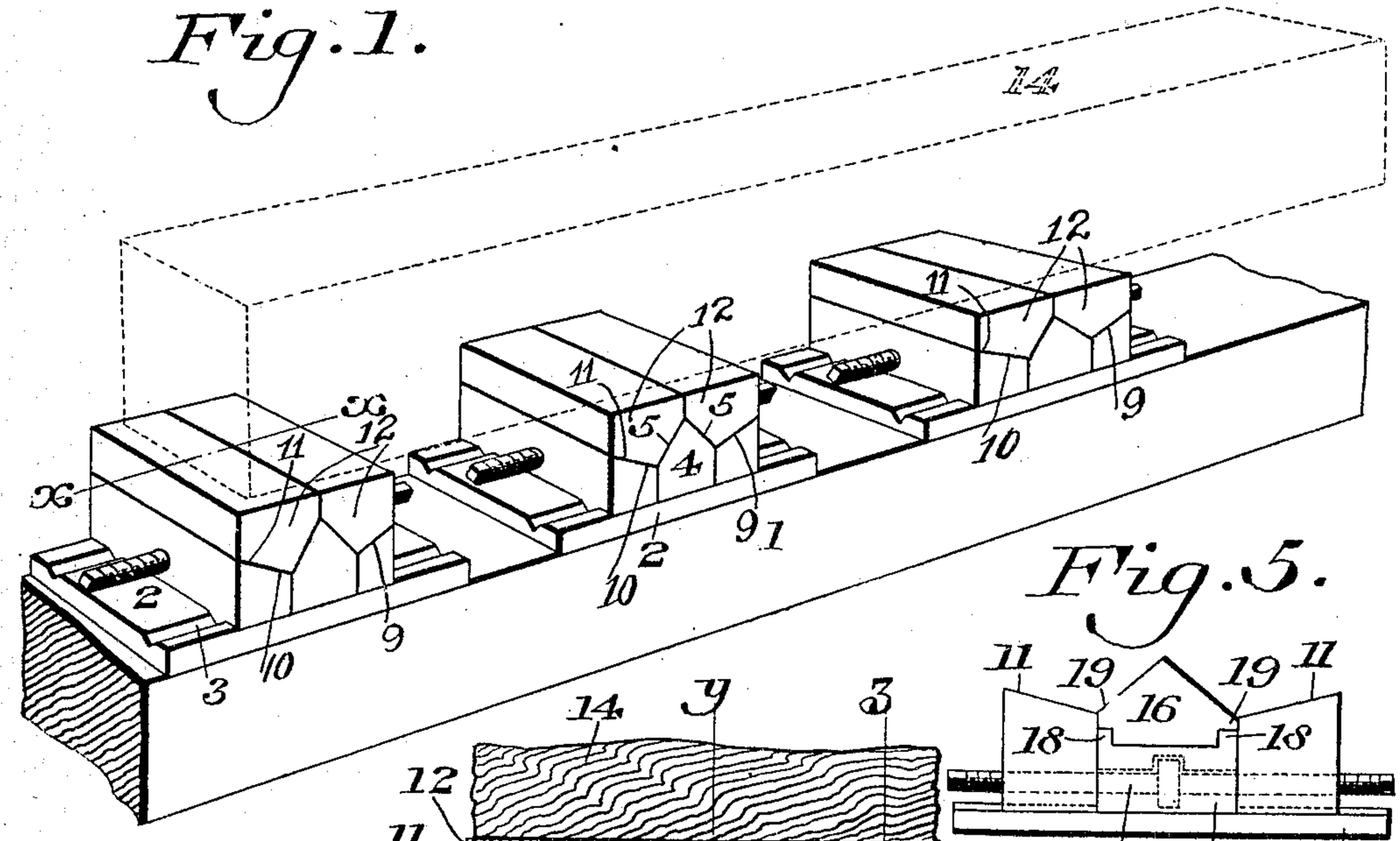


Fig. 5.

Fig. 2

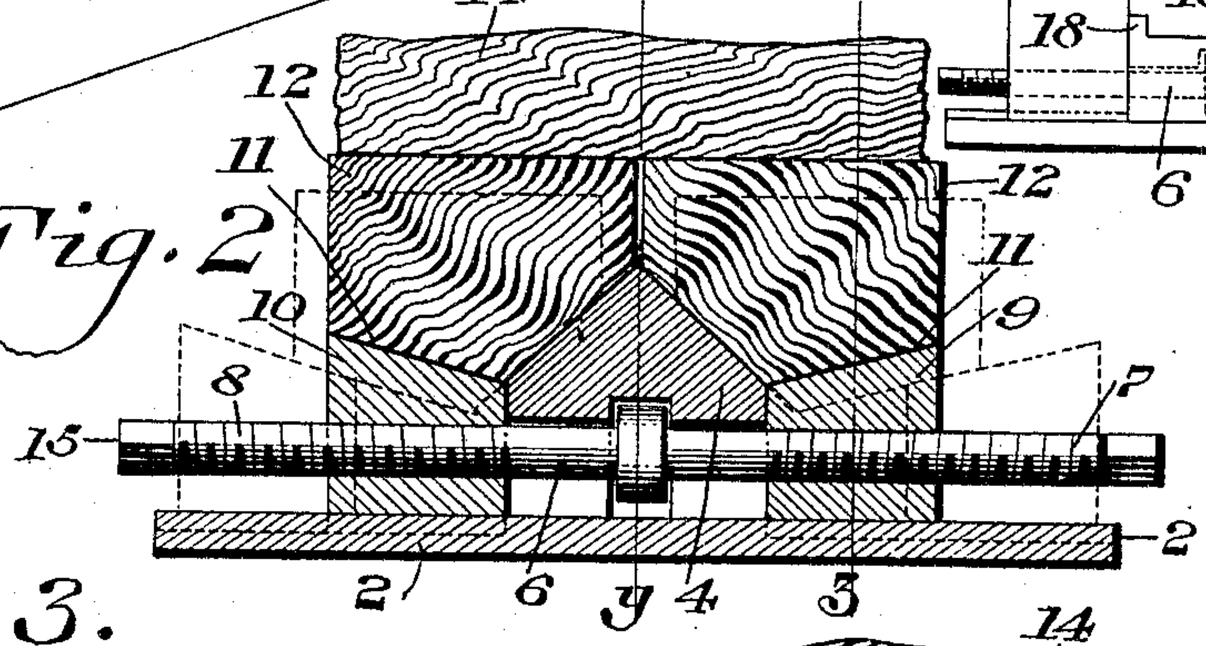
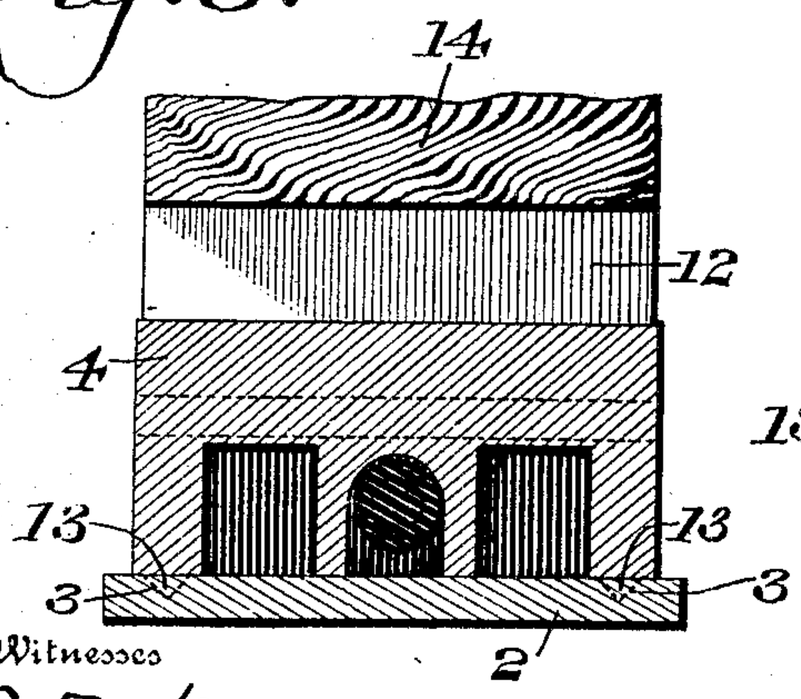


Fig. 3.



Witnesses

P. F. Nagle.

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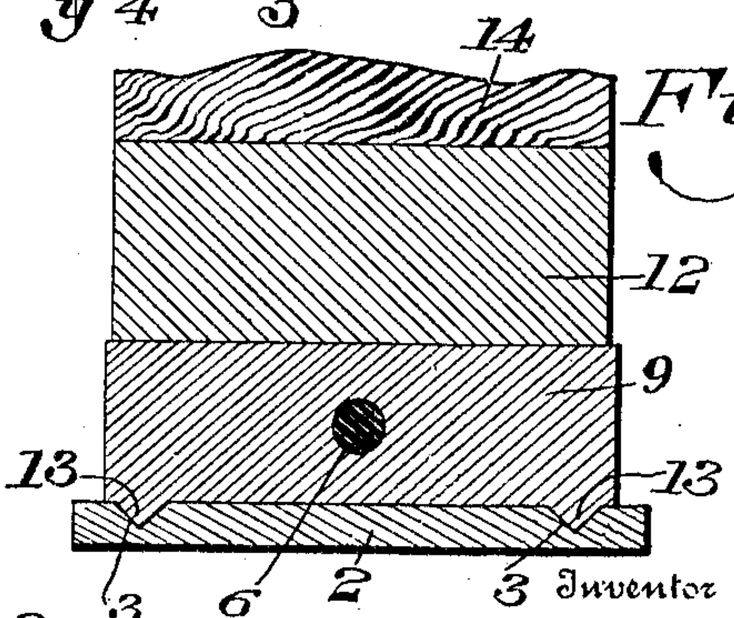
Fig. 4.



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KEEL-BLOCK FOR SHIPS.

No. 871,467. Specification of Letters Patent. Patented Nov. 19, 1907.

Application filed October 4, 1906. Serial No. 337,334.

To all whom it may concern:

Be it known that I, THOMAS H. ALCORN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented new and useful Keel-Blocks for Ships, of which the following is a specification.

My invention relates to keel blocks for supporting ships and consists in providing means whereby the same can be quickly and expeditiously removed from beneath the keel at the proper time.

It further consists of novel details of construction, all as will be hereinafter fully set forth.

Figure 1 represents a perspective view of three of the keel blocks showing the keel in dotted lines. Fig. 2 represents a sectional view on line *x*—*x*, Fig. 1. Fig. 3 represents a sectional view on line *y*—*y*, Fig. 2. Fig. 4 represents a sectional view on line *z*—*z*, Fig. 2. Fig. 5 represents an elevation showing one manner of constructing the central block of my device.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—In ship building, it is customary in starting the construction of a vessel, to form the keel support or block of timber upon which the keel is laid and as progress is made in the construction of the ship or vessel, it will be evident that a great weight is carried by this keel block. At the proper time the ways are constructed, supporting the hull of the ship but there still remains a very considerable amount of weight on the keel block. When the vessel is ready for launching it is necessary to employ a large force of men in order to remove the keel blocks so that the vessel can slide out off the ways. This necessitates a considerable amount of labor and in the destruction of the timber composing the keel block and must be carefully done.

My present invention is to overcome the necessity of the use of the large force of workmen, at the same time removal of the keel blocks is more quickly and easily accomplished and the destruction of the timber is obviated.

In the drawings I have shown one form of keel block for carrying out my invention, but it will be evident that other instrumentalities may be employed which will accomplish the same result.

1 designates the base or support for my blocks, said base being first arranged in the proper place and is adapted to support at suitable intervals therein, a plurality of the blocks.

In the drawings in Fig. 1, I have shown three of these blocks in position although it will be evident that any number may be employed and that the distance between them may vary depending upon conditions. The keel blocks consist of the plate 2 which forms the support for the parts and which rests upon and may be secured to the base 1, said plates having the grooves 3 which in the present instance are V-shaped in their upper faces. Secured to in any suitable manner or forming part of the base plate 2 is a central block 4 which has the inclined upper faces 5. Supported by the said central block 4 and passing therethrough is the rod 6 which has screw threads 7 and 8 thereon at the proper place.

9 and 10 designate movable side blocks having threaded openings therethrough which engage with the threads 7 and 8, respectively on the rod 7, said side blocks having suitably inclined upper faces 11 which are reversely inclined to the inclined faces of the central block 4.

12 designates removable filling blocks which blocks are provided with inclined faces to correspond to the faces 5 of the central block 4 and the faces 11 of the movable side blocks 9 and 10, it being noted that the said blocks 12 are adapted to be seated normally upon the central block 4 and the said side blocks 9 and 10, (the parts initially being in the position seen in Figs. 1 and 2) and that the upper faces of the said blocks 12 are substantially flat so that when the blocks are in position as before stated, the upper surfaces are in the same plane.

13 designates lugs which, in the present instance, are V-shaped and are situated upon the lower faces of the side blocks 9 and 10 and which are adapted to be seated in the grooves 3, it being understood that the said lugs and grooves form a track for the movable blocks 9 and 10.

The operation of the parts will be readily understood. As before stated, after the plates 2 are placed upon the base 1, and the side blocks 9 and 10 are in the position seen in Figs. 1 and 2 with the blocks 12 resting thereupon, the upper faces form a plane surface upon which is rested the keel 14 of the vessel to be constructed. After the hull

is completed and the ways are in position supporting the said hull and the vessel is ready for launching in order to remove the blocks 12 from the keel a suitable implement or device is connected with the squared end 15 of the rod 6 for rotating it and the same is turned, thereby causing the movable side blocks 9 and 10 to move outwardly away from the central block 4. As this movement progresses the blocks 12 will be lowered, the inclined faces of said blocks and of the movable side blocks and the central block permitting of this lowering, the parts assuming the position seen in dotted lines in Fig. 2 so that said blocks 12 will be free from contact with the keel 14 and can be easily removed from their position upon the side blocks 9 and 10 and central blocks 4 and the keel is free from support. In this manner it will be seen that the support of the keel can be quickly and expeditiously removed without destroying any of the parts which are ready for use again, as soon as desired.

In some instances it may be necessary to remove the upper portion of the central block 4 and in Fig. 5 I have shown a cap 16 which is removable from the central block 17, the latter in the present instance, being formed with the projections 18 upon which rest the lugs 19 of the cap 16 so that while the same is suitably supported it can be removed longitudinally of the block 17. The blocks 12 are preferably of wood and the central block 4 and the movable side blocks 9 and 10 of metal and if desired, I may form the blocks solid or hollow as desired.

In the drawings I have shown the blocks in Fig. 1 with the rod 6 extending longitudinally with the keel 14, although it will be understood that I may situate the plates cross-wise of said keel in order that the rod 6 may extend beyond the base 1, the operation of the parts being the same.

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

1. In a device of the character described, movable supports, blocks carried by said supports, and means in engagement with the supports for operating said supports whereby said blocks are lowered and for returning said supports to their normal position.

2. In a device of the character described, movable supports, blocks carried thereby, and means connected with the supports for moving the same whereby said blocks are lowered.

3. In a device of the character described, a stationary support, movable side supports adjacent said stationary support, blocks carried by said supports, and means in engagement with said movable supports for moving the same whereby said blocks are lowered.

4. In a device of the character described, a stationary support, movable side supports, means for moving said side supports, blocks carried by said supports and adapted to be lowered when said side supports are moved and guides for said side supports.

5. In a device of the character described, a stationary support, a movable support adjacent said stationary support, a block carried by said supports, and means connected with said movable supports for operating the same with respect to each other, so that said block is lowered.

6. In a device of the character described, a stationary support, movable supports adjacent said stationary support, a rod carried by said stationary support, and engaging with said movable supports and blocks carried by said supports adapted to be lowered when said side supports are moved.

7. In a device of the character described, a plate, a stationary support carried thereby, movable supports guided by said plate, a threaded rod carried by said stationary support and engaging with said movable supports and blocks carried by said supports, and adapted to be lowered when said side supports are moved.

8. In a device of the character described, a plate, a stationary support carried thereby and having inclined upper faces, movable supports adjacent said stationary support, each having an inclined upper face, a threaded rod carried by said stationary support and engaging with said movable supports for operating the same and blocks carried by said supports and adapted to be lowered when said movable supports are operated.

9. In a device of the character described, a stationary support, movable supports, blocks carried thereby, and unitary mechanical means for separating and drawing together said supports.

10. In a device of the character described a stationary support, blocks, movable supports on each side of said stationary support and mechanical means for raising and lowering said blocks.

11. In a device of the character described, movable supports, means for moving the same, blocks carried by said supports and adapted to be raised and lowered when said supports are moved and guides for said supports.

12. In a device of the character described, a stationary support having oppositely inclined faces, side supports means for moving said side supports towards and away from said first mentioned support and blocks carried by said supports.

13. In a device of the character described, a support having oppositely inclined faces, supports on opposite sides thereof having faces inclined oppositely to that of the adjacent face of the first mentioned support, and means for moving said side supports.

14. In a device of the character described,

a support having oppositely inclined faces, supports on opposite sides thereof having faces inclined oppositely to that of the adjacent face of the first mentioned support, means for moving said side supports and blocks carried by said supports.

15. In a device of the character described, a support, movable supports and a threaded rod carried by said first support and engaging with each of said movable supports for actuating the same.

16. In a device of the character described, a support having oppositely inclined faces, supports on opposite sides thereof having faces inclined oppositely to that of the adjacent faces of the first mentioned support, a threaded rod suitably supported and in engagement with said movable supports for actuating the same, and blocks carried by said supports.

17. In a device of the character described, a support having oppositely inclined faces, supports on opposite sides thereof having faces inclined oppositely to that of the adjacent faces of the first mentioned support, a threaded rod suitably supported and in engagement with said movable supports for actuating the same, blocks carried by said supports, and guides for said movable supports.

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Witnesses:
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