No. 711,797. Patented Oct. 21, 1902.

A. B. TARBOX.

TACKLE BLOCK.

(Application filed Apr. 24, 1902.)

(No Model.) 2 Sheets—Sheet 1.

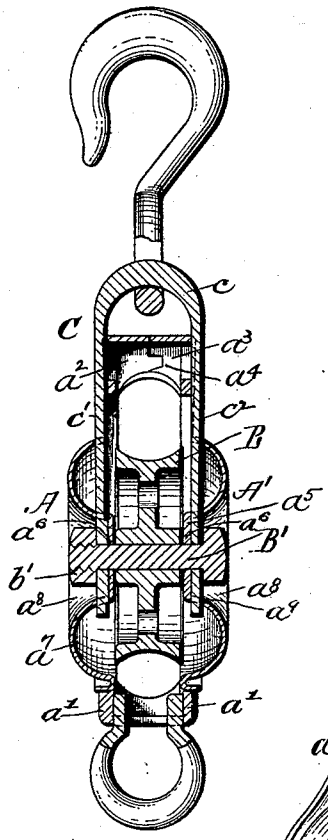

Fig. 2.

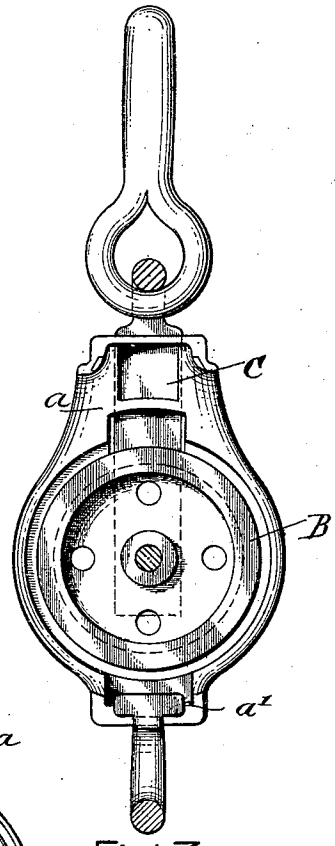

Fig. 3.

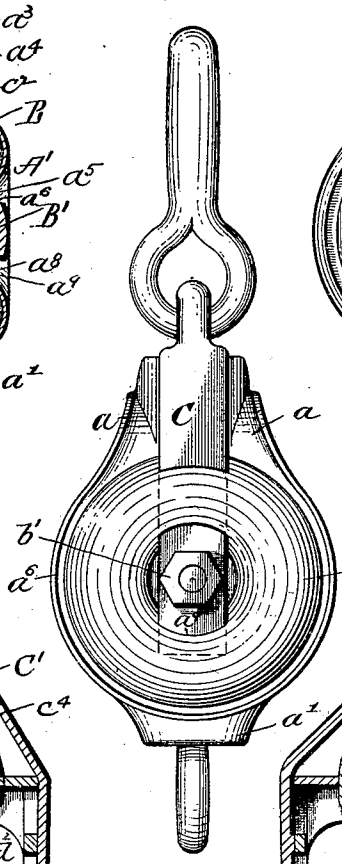

Fig. 1.

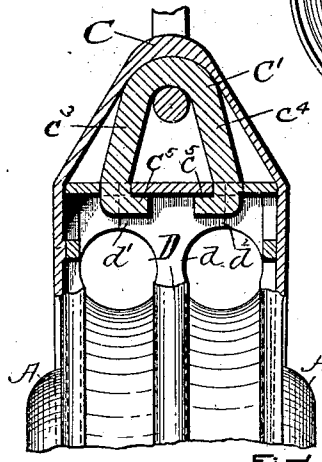

Fig. 4.

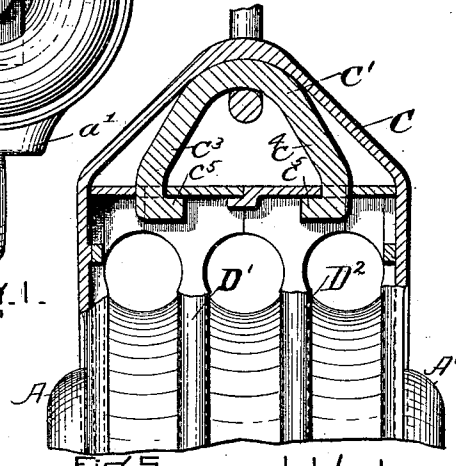

Fig. 5.

WITNESSES:

J. M. Dolan.

Paul Sippenstein

INVENTOR:

Alfred B. Tarbox

by Lindsley & Clarke Raymond

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 711,797. Patented Oct. 21, 1902.

A. B. TARBOX.

TACKLE BLOCK.

(Application filed Apr. 24, 1902.)

(No Model.) 2 Sheets—Sheet 2.

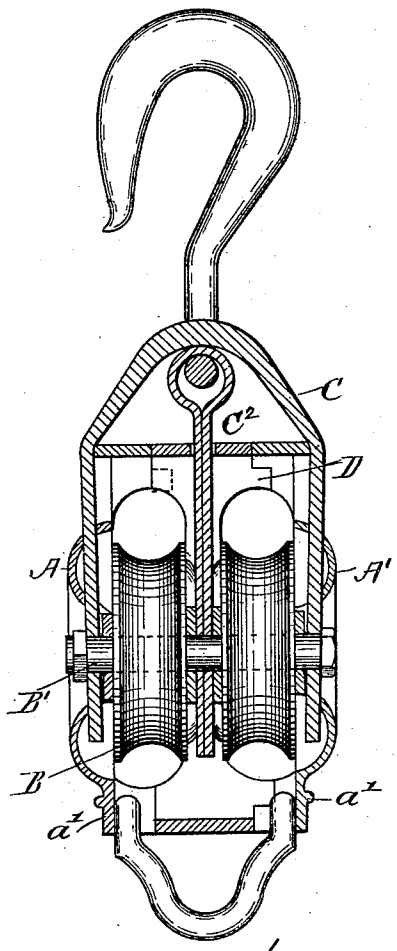

Fig. 6.

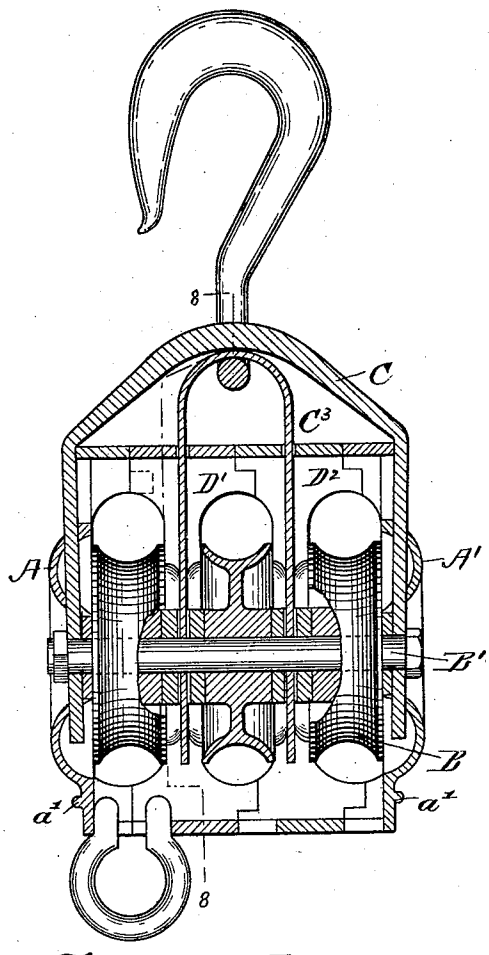

Fig. 7.

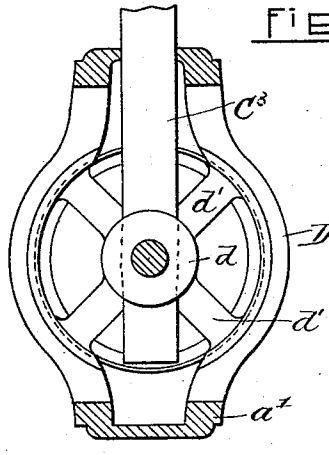

Fig. 8.

WITNESSES.

J. M. Dolan

Paul Eippenstein

INVENTOR

Alfred B. Tarbox

by Curtis Allyn

Clarke & Raymond

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALFRED B. TARBOX, OF CHELSEA, MASSACHUSETTS.

TACKLE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 711,797, dated October 21, 1902.

Application filed April 24, 1902. Serial No. 104,440. (No model.)

To all whom it may concern:

Be it known that I, ALFRED B. TARBOX, a citizen of the United States, and a resident of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Tackle-Blocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

My invention relates to an improvement in tackle-blocks.

It comprises a block making a strap connection with a hook or other attachment, and pertains more especially to the means by which the arms of the connecting-strap may be combined with the cheek sides of the block, so as to result in very material advantages of construction; but this, together with improvements in the combination and organization of parts, may be more clearly seen through detailed description in connection with the accompanying drawings, wherein—

Figure 1 shows the block in side elevation. Fig. 2 shows the same in vertical cross-section. Fig. 3 is a view mainly in longitudinal section, showing the interior structure of the block. Fig. 4 shows in cross-section my invention as applied to a double-sheave block. Fig. 5 shows the same in connection with a triple-sheave block. Figs. 6, 7, and 8 relate to a modified construction, to which reference is hereinafter made.

Referring to the drawings, I will first describe my invention as applied to a block having a single sheave and as represented in Figs. 1, 2, and 3. A A′ represent the cheek or side pieces of the block. They are of metal and have end extensions a a', provided with laterally-extending sections a^2 a^3, which abut and also make an interlocking connection with each other at the point a^4. Within the shell thus formed is the sheave B, and B′ represents the sheave-pin. The cheek-pieces are formed to provide an interior wall a^5, through which the sheave-pin passes, the edges a^6, inturned to guard the edges of the sheave, and the annular rounded wall a^7. This rounding of the cheek sides forms cavities a^8, which are of sufficient depth to receive the headed end of the sheave-pin on the one side and the nut b', attached to its threaded end, on the other. There is also received within the cavities a^8 the extended arms of the strap C, for they here make attachment with the sheave-pin. The strap C acts as a means for connecting the block with a hook or other attachment, and it comprises the looped bar c and the two arms c' c^2. These arms are drawn over the corner of the end extensions along their exterior walls, which are slightly recessed to receive them, then directly through the rounded walls a^7 of the cheek-pieces (see Figs. 1 and 2) to the cavity a^8, where they lie alongside the interior wall a^5 and make attachment with the sheave-pin by its passing through them. A still further extension is then made by the arms into and through the rounded walls of the cheek sides at the point a^9 and well into their hollow interior. By their bearing over the edges on the outside along the end extensions of the cheek-pieces the arms of the strap tend to hold the same in close connection, and not only this, but all drawing strain upon the strap only tends to bind the ends of the cheek-pieces more closely together. This advantage comes from the arms of the strap being bent over and around the edge of the cheek extensions, for the strain from the attached hook, instead of coming directly upon the sheave-pin to which the arms are attached, is directed by the connecting-arms over the edge of the block, where it has a binding effect upon the separated cheek-pieces and adds to the strength and rigidity of the entire block. The advantages of this construction are increased by the arms of the strap extending down through but relatively on the outside of the cheek-pieces, as they do to connect with the sheave-pin. This construction combines the advantages of an exterior strap, which acts as a guard or shield to the shell of the block, with a pinning together and reinforcement of the cheek-pieces, which could hardly be obtained from any other construction. There is also retained the additional advantage of recessing or housing the headed and bolted end of the sheave-pin within the cavity of the cheek sides.

In Fig. 4 I have shown my invention as applied to a block having more than one sheave, two blocks being shown. The bearing of the strap-arms in this combination with the cheek sides and extensions is as before explained.

Between the two sheaves is interposed the center piece D, through which the sheave-pin B′ passes. This center piece guards the edges of the sheaves and has the extension d, which has laterally-projecting sections d' d^2, interlocked between the sections, laterally extending from the cheek sides, so that the strap C by its bearing alongside the extensions of the cheek sides tends to hold not only the cheek sides, but also the interposed center piece, in closely-drawn connection. An additional element in the double-sheave block comprises the supplementary strap C′, the arms c^3 c^4 of which extend down through openings in the laterally-extending sections of the block and have their ends c^5 turned in beneath the under side of the sections, laterally projecting from the center piece to act as a means of attachment. This strap C′ reinforces the strap C, and inasmuch as the center piece with which it makes attachment is directly connected with the sheave-pin the strain upon the block is more evenly distributed.

In Fig. 5 a triple-sheave block is shown. Instead of a single center piece, as with the double-sheave block, two center pieces D′ D^2 are shown, which extend up to interlock by their laterally-projecting sections with each other and with the lateral extensions of the cheek sides. The supplementary strap C makes attachment with the block by its arms c^3 c^4, extending down to clasp around the extensions of the two center pieces. The arms keep the center pieces closely drawn together, which advantage is increased by strain upon the strap. In other respects the construction of the three-sheave block is as before explained.

In Figs. 6 and 7 the arms of the interior straps C^2 C^3 instead of having their ends inturned beneath the under sides of the sections laterally projecting from the center piece or pieces, as with the strap C′ in Figs. 4 and 5, extend down through the heads of the center pieces and make direct attachment with the sheave-pin, which, in other words, passes through them. By reference to Fig. 8 it may be seen that these center pieces D D′ D^2 have interior hubs d, through which the sheave-pin passes, and the radial arm d', connecting with their outer sheave-guiding rims, so that the arms of the interior strap, extending down, as they do, in the same plane with the central piece or pieces, pass between the radial arms d', and in order to connect with the sheave-pin extend directly through the hub or hubs d. The arms are then continued sufficiently in their extension to insure strength. In Fig. 6, where the block contains two sheaves and only one central division-piece, the arms of the strap C^2 are drawn together in their extension, so that the two arms together pass through the hub d, while in Fig. 7, with the triple sheaves and the two center pieces, the arms of the strap C^3 extend down separately through the hub d and make their attachment with the sheave-pin, as described.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The tackle-block herein described, the same having cheek-pieces provided with abutting end extensions, and a strap, the arms of which extend down alongside the exterior of said end extensions to make connection with a sheave-pin, substantially as described.

2. The tackle-block herein described, the same having cheek-pieces provided with abutting end extensions, and a strap, the arms of which extend down alongside and within the grooved exterior of said end extensions to make connection with a sheave-pin, substantially as described.

3. The tackle-block herein described, the same having cheek-pieces provided with abutting end extensions, and a strap for making connection with a hook or other attachment, the arms of which are bound around said end extensions, substantially as described.

4. The tackle-block herein described, the same having cheek-pieces provided with abutting end extensions, and a strap, the arms of which draw around the edges of said end extensions and alongside the exterior sides thereof, substantially as described.

5. The tackle-block herein described, having cheek-pieces provided with abutting end extensions, and a strap, the arms of which extend down alongside the exterior of said end extensions and through the rounded wall of said cheek-pieces to make attachment with a sheave-pin, substantially as described.

6. A tackle-block having cheek-pieces provided with abutting end extensions, a strap, the arms of which are turned to extend down along the exterior sides of the abutting extensions to make attachment with a sheave-pin on the outer sides of said cheek-pieces, said sheave-pin, and means for housing or receiving its headed and bolted end, substantially as described.

7. A tackle-block having cheek-pieces, each of which is provided with an annular rounded wall inclosing an exterior cavity, a sheave-pin uniting said cheek-pieces, the headed and bolted ends of which are contained within said cavities of the cheek-pieces, and a strap, the arms of which pass down through the rounded wall aforesaid to make attachment with the sheave-pin within the cavities aforesaid of the cheek-pieces, substantially as described.

8. A tackle-block having cheek-pieces turned in to guard the edge of the inclosed sheave and provided with abutting end extensions, in combination with a strap, the arms of which extend down on the outside alongside said cheek extension to make attachment with a sheave-pin alongside its headed and bolted ends, said sheave-pin and means for housing its headed and bolted ends, substantially as described.

9. The tackle-block herein described, having cheek-pieces provided with end exten-

sions, one or more center pieces having extensions to become interlocked between the said cheek extensions, and a strap, the arms of which extend down alongside the exterior of said cheek extensions to make connection with a sheave-pin, substantially as described.

10. The tackle-block herein described having cheek-pieces provided with end extensions, one or more center pieces having extensions to become interlocked between the said sheave extensions, and where more than one is used with each other, a strap, the arms of which extend down alongside the exterior of said sheave extensions to make connections with a sheave-pin, and an interior strap the arms of which are adapted to connect with the center of the block substantially as described.

11. The tackle-block herein described having cheek-pieces provided with end extensions, one or more center pieces having extensions to become interlocked between the said sheave extensions, and where more than one is used with each other, a strap, the arms of which extend down alongside the exterior of said sheave extensions to make connections with a sheave-pin, and an interior strap the arms of which extend down between the radial arms and through the hubs of said center pieces to make attachment to said sheave-pin substantially as described.

ALFRED B. TARBOX.

Witnesses:
F. F. RAYMOND, 2d,
J. M. DOLAN.