No. 805,760. PATENTED NOV. 28, 1905.

A. B. TARBOX.

BLOCK.

APPLICATION FILED JUNE 24, 1905.

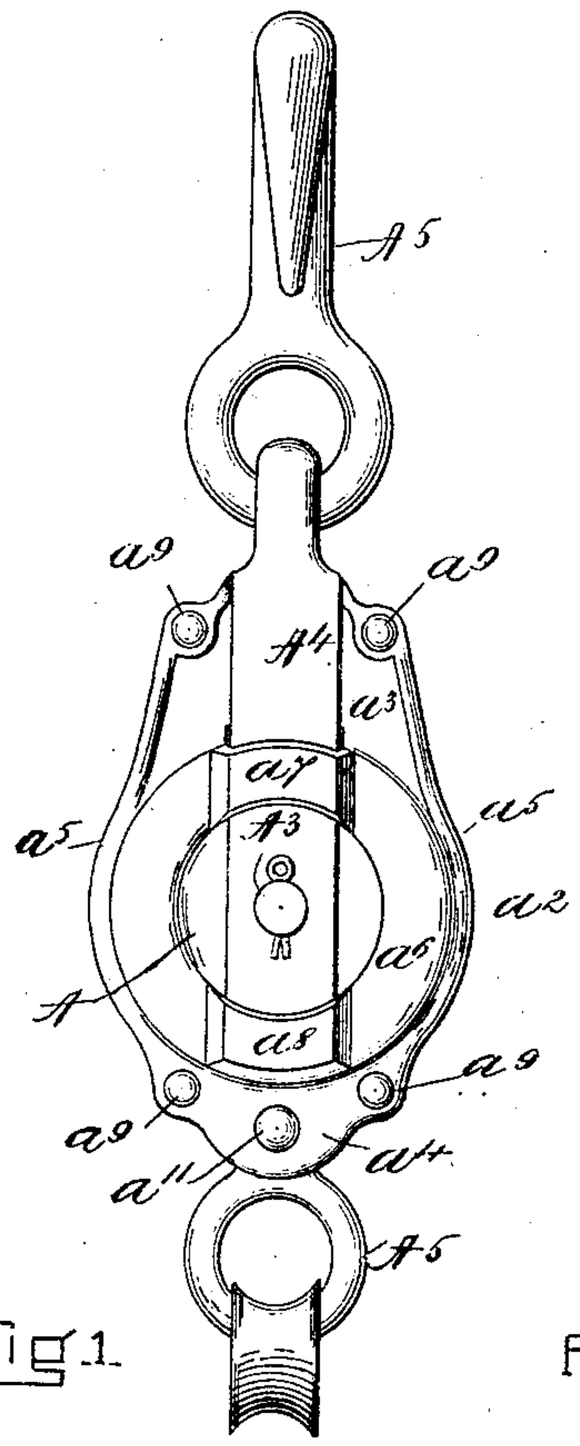

Fig. 1.

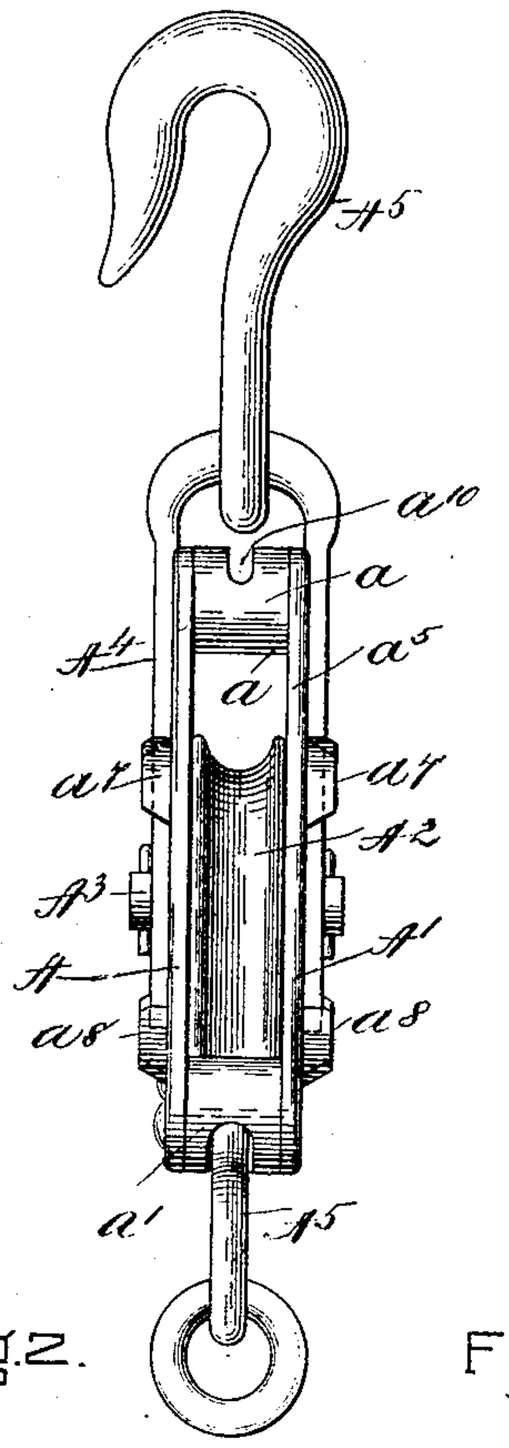

Fig. 2.

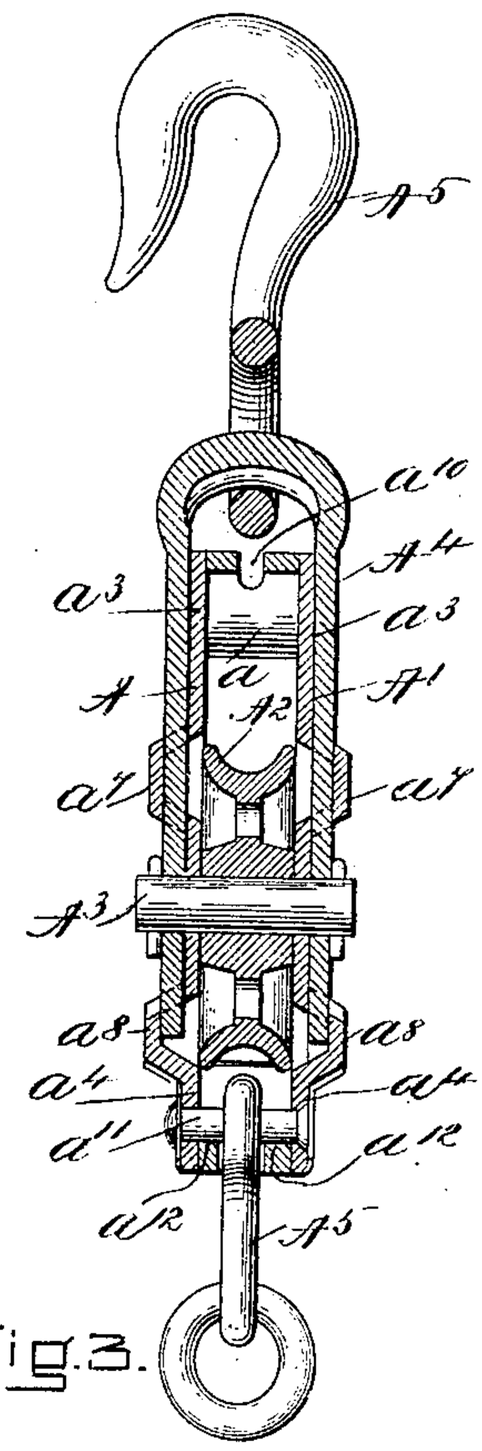

Fig. 3.

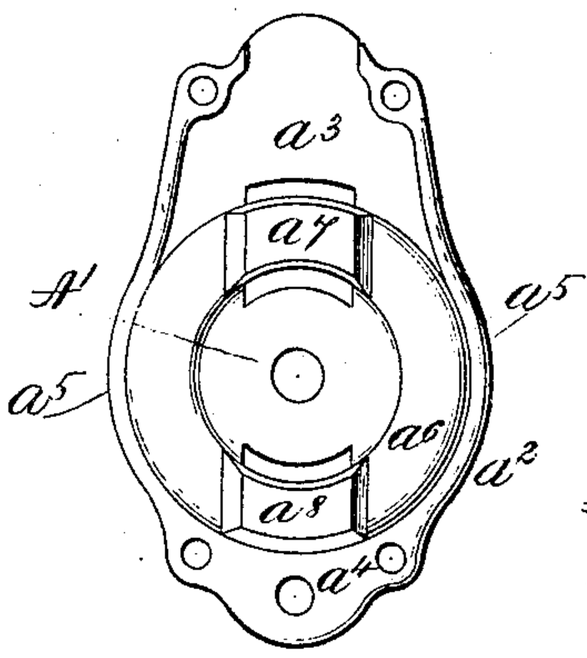

Fig. 4.

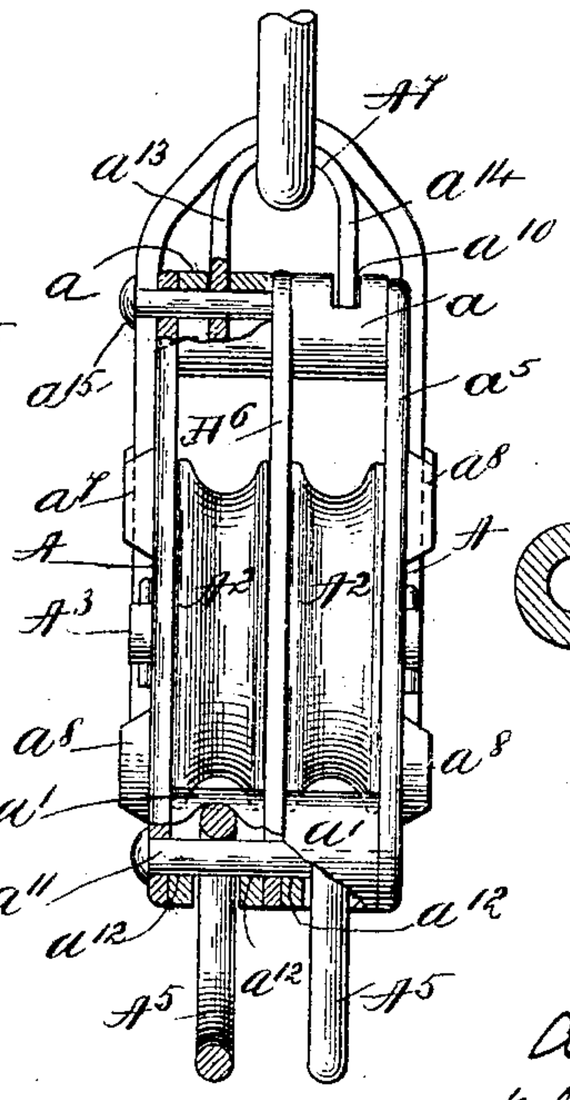

Fig. 6.

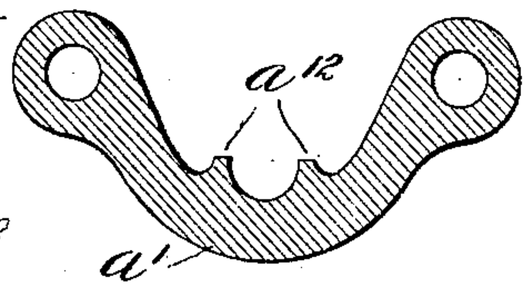

Fig. 5

WITNESSES
R. E. Brewer.
M. V. Foley.

INVENTOR
Alfred B. Tarbox
by Church Kayward Brown
his Attorneys

UNITED STATES PATENT OFFICE.

ALFRED B. TARBOX, OF BOSTON, MASSACHUSETTS.

BLOCK.

No. 805,760. Specification of Letters Patent. Patented Nov. 28, 1905.

Application filed June 24, 1905. Serial No. 266,757.

To all whom it may concern:

Be it known that I, ALFRED B. TARBOX, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in 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.

The object of my invention is to make a light, strong, and durable block. I attain this object by dispensing with all unnecessary metal, making especially strong those parts upon which the heaviest strain comes—viz., the hook-strap and hook, the sheave or sheaves, and the bearings therefor—and treating the cheeks and remaining portions of the block as parts in a sense auxiliary, in other words, making them as simple and light in construction as possible, but of special utility in form and adaptation.

My improved block can better be seen and its construction best understood by reference to the drawings, in which—

Figure 1 shows the improved block in side elevation. Fig. 2 shows the same in front elevation; Fig. 3, a vertical cross-section of the block. Fig. 4 shows one of the cheeks of the block in elevation. Fig. 5 illustrates a detail thereof to which reference will hereinafter be made. Fig. 6 shows in front elevation the improved form of block containing more than one sheave.

Referring to the drawings, A A′ represent the respective cheeks or sides of the block inclosing a sheave A^2. The cheeks are held separated from one another or spaced apart by members *a a′* interposed between their top and bottom ends. The sheave A^2 is arranged upon a sheave pin or bearing A^3, which extends through the cheeks of the block. A^4 represents a strap the arms of which pass down outside and alongside the respective cheeks and make attachment with the sheave-pin, extending through the same, and A^5 represents the hook carried by the strap. With the exception of the cheeks and their separating members these parts are all made especially strong or heavy with metal, so as to easily bear the strain to which the block is ordinarily subjected. As for the cheeks A A′ and their space members *a a′*, they are made relatively lighter in metal, but especially adapted in form to perform their proper functions. To them reference will now be made.

With respect, first, to the formation of the cheeks they are in construction precisely alike. Each consists of a relatively thin metal plate alongside of which the strap-arms are adapted to extend, as before explained. In form the flat cheeks comprise the central portions a^2 of sufficient breadth to fully cover and protect the sheave. Extending from their central portions a^2 the cheeks further comprise what may be termed "upper" and "under" extensions, the upper of which extensions a^3 are considerably longer than the under extensions a^4. In width the cheeks gradually lessen from their central portions a^2 in these extensions until at the ends of the extensions the cheeks are relatively narrow and are formed rounding or bow-shaped. Along their edges the cheeks are provided with reinforcing strengthening-ribs a^5, which along the main or central portions of the cheeks act also as guards to protect the edge of the sheave. In its main or central portion a^2, also inclosing the sheave, each cheek has on either side a raised or outwardly-bent portion a^6, which takes the metal of the cheek away from the sheave so that it cannot wear against the same. This bending of the cheek also acts to strengthen and reinforce it. For the retention of the strap, or, rather, for retaining the cheeks in proper relation to the strap, each is provided above the sheave-pin with a raised portion or band a^7, which extends over the strap-arm for binding the cheek thereto. At the ends of the strap-arms, below the sheave-pin, each cheek is provided with a band made in the manner of a housing a^8, which receives the ends of the arms, concealing them and also assisting in holding the parts together.

With respect to the cheek-spacing members *a a′* they are, it is to be noted, made of relatively thin metal, rounding or bow-shaped in form to correspond with the top and bottom ends of the cheek extensions, between which they are adapted to fit. They act accordingly not only to separate the cheeks, but to close also the top and bottom of the block-casing. At their ends the members are reinforced by heavier metal, having holes through which the rivets a^9 are adapted to pass for holding the members in proper place and fastening the cheeks together. These members also have slots a^{10} formed in them, which for the member or members *a′*

at the bottom or base of the block permit of the entrance of a portion of a becket-carrying link A^5 inside the block. This link portion inside the block is held by a bolt or rivet a^{11}, which extends transversely through the bottom of the block and is headed in the under cheek extension a^4. In connection with this bolt it is to be observed that the lower cheek-spacing member or members a' have rests a^{12}, on which the bolt a^{11} has bearing. These rests support the bolt and keep it from becoming bent under the strain to which it is subjected. Such support is especially good in case the block has two or more sheaves, for then this bolt is of some considerable length and needs some auxiliary support.

In Fig. 6 I have shown a block containing more than one sheave. The construction of this block is substantially like that of the one sheaved block before described. Between the sheaves, however, is placed a flat sheave-separating plate A^6, which has the same outlined form as the cheeks and is separated therefrom at the top and bottom by the space members $a\ a'$, providing housings for the insertion of the sheaves. This block is also provided with an auxiliary strap A^7, the arms a^{13} a^{14} of which extend down through the slots formed in the space members a and are secured to a bolt or rivet a^{15}, which extends transversely through the upper extremity of the block and is headed upon its respective cheeks.

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

1. A block having cheeks or sides, a sheave interposed between the same, a sheave-pin for said sheave extending through said cheeks, a strap the arms of which extend outside and alongside said cheeks or sides to make connection with said sheave-pin, and metal bands forming an integral part of said cheeks and extending therefrom to pass over said strap-arms for combining said cheeks and strap-arms.

2. A block having cheeks or sides, a sheave interposed between the same, a sheave-pin for said sheave extending through said cheeks, a strap the arms of which extend outside and alongside said cheeks or sides to make connection with said sheave-pin, and metal plates or bands extending integrally from said cheeks or sides to pass over said strap-arms above and below said sheave-pin in a manner substantially as described.

3. A block having cheeks or sides, a sheave interposed between the same, a sheave-pin for said sheave extending through said cheeks, a strap the arms of which extend outside and alongside said cheeks or sides to make connection with said sheave-pin, and metal plates or bands extending integrally from said cheeks or sides above and below said sheave-pin, which bands below the sheave-pin form also housings for concealing and protecting the ends of the strap-arms.

4. A block having flat metal cheeks or sides, sheaves interposed between the same, a sheave-pin, a strap the arms of which extend outside and alongside said cheeks or sides, the edges of which cheeks are provided with a reinforcing bead or rim acting in the vicinity of said sheaves as a protection and guard therefor, which cheeks have also in the vicinity of the sheaves, portions a^6 offset therefrom, whereby said cheeks are protected from the wear of the same, and portions or bands a^7, a^8, uniting with said strap-arms, substantially as described.

5. A block having flat metal cheeks or sides, each of which comprises a central sheave-protecting portion a^2, and portions, a^3, a^4, respectively, extending therefrom, which cheeks also along the edges of said portions are provided with a reinforcing bead or rim which for the central sheave-protecting portion a^2, acts as a protection to the sheave, members interposed between said extensions of the cheeks for spacing the cheeks apart to permit of the insertion of the sheave, said sheave and a sheave-pin bearing the same, extending between said cheeks.

6. A block having cheeks or sides, a space member interposed between the same, a slot formed in the space member at the bottom end of the block, a becket-carrying link member extending through said slot so as to be contained within said block, a bolt or rivet passed through the lower extremity of the block for holding said link member, and a rest or bearing carried by said lower space member for supporting said bolt or rivet.

7. A block having flat metal cheeks or sides, each of which comprises a central sheave-protecting portion a^2 and portions a^3, a^4, respectively, extending therefrom, which cheeks also along the edges of said portions are provided with a reinforcing bead or rim, which for the central sheave-protecting portion a^2 acts as a protection to the adjacent sheave, a plurality of sheaves interposed between said cheeks, a flat metal sheave-plate between said sheaves of construction similar to the cheeks as aforesaid, space members between the extended portions of said cheeks and plate for spacing the same apart, and rivets or other means of fastening extending through said cheeks, plate and space members for fastening the same together, substantially as described.

8. A block having cheeks, a plurality of sheaves interposed between the same, a sheave-pin for said sheaves extending between said cheeks, a sheave-separating plate or plates between said sheaves, space members or blocks between said cheeks and interposed plate or plates for holding the same

properly spaced apart, a main strap the arms of which extend down outside and alongside said cheeks to make connection with said sheave-pin, and an auxiliary strap inside said main strap the arms of which are passed down through slots formed in said upper space members, and a bolt or rivet extending transversely through the upper extremity of said block to which said auxiliary strap-arms are secured.

ALFRED B. TARBOX.

Witnesses:
JOHN E. R. HAYES,
ROBERT E. BREWER.