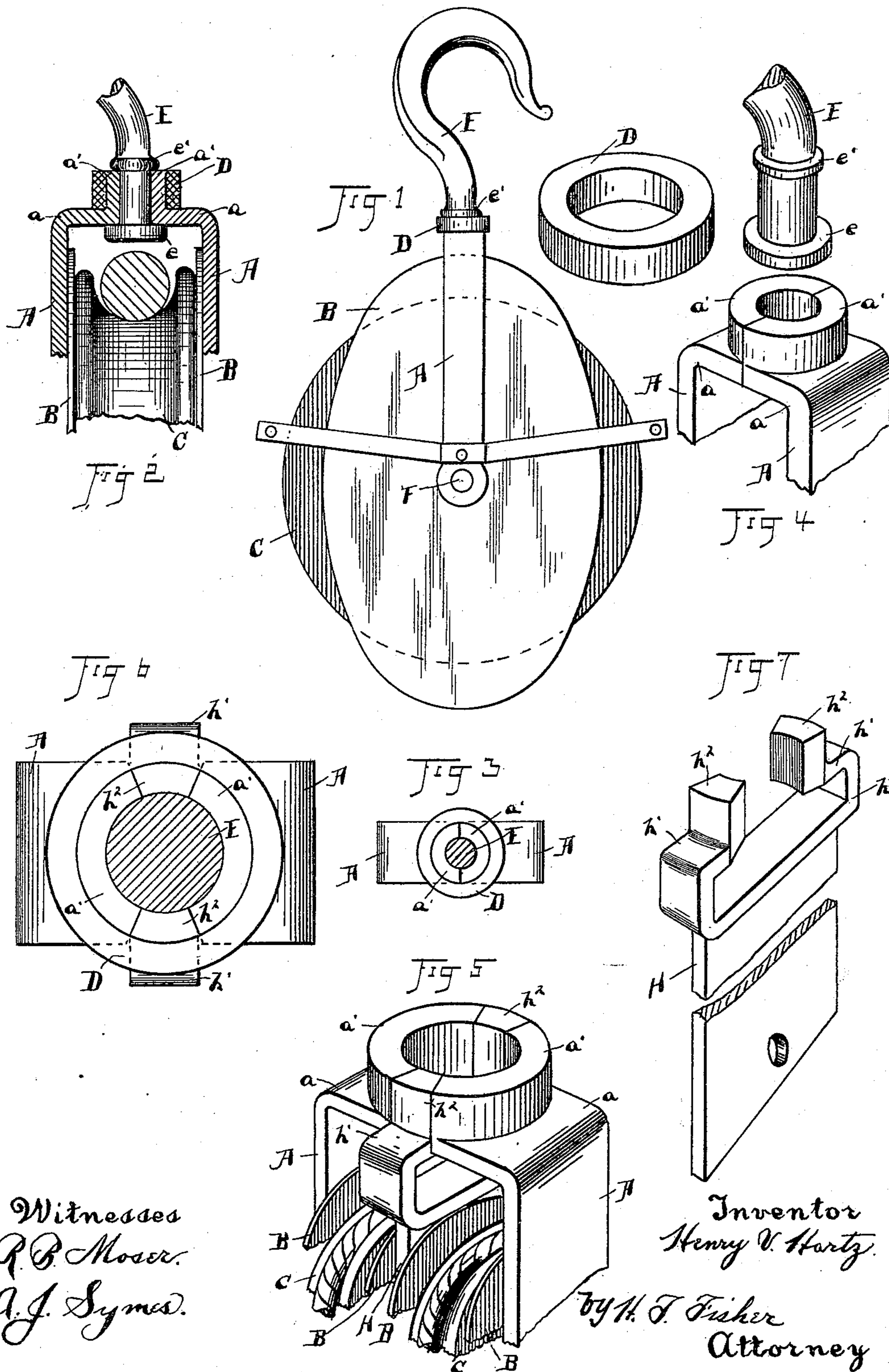


(No Model.)

H. V. HARTZ.
TACKLE BLOCK.

No. 470,240.

Patented Mar. 8, 1892.



Witnesses
R. B. Moser.
A. J. Symes.

Inventor
Henry V. Hartz.
by H. F. Fisher
Attorney

UNITED STATES PATENT OFFICE.

HENRY V. HARTZ, OF CLEVELAND, OHIO.

TACKLE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 470,240, dated March 8, 1892.

Application filed June 3, 1891. Serial No. 394,930. (No model.)

To all whom it may concern:

Be it known that I, HENRY V. HARTZ, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Tackle-Blocks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in tackle-blocks; and the object of the invention is to simplify, cheapen, strengthen, and generally improve the construction of the block in the manner hereinafter fully described.

Heretofore in the process of producing tackle-blocks of the variety shown herewith there has been required a great deal of welding to unite the several different parts of which it was composed, and then if any part were accidentally broken the block was either rendered worthless, or it had to be sent to a blacksmith-shop and undergo repairs, which would be more or less expensive, according to the nature of the break.

My improvement contemplates the simplification of both the original construction and of subsequent repairing by reason of the manner in which the block was made. Thus most of the parts are drop or press forged, and they are firmly but temporarily united by a removable band or ring. This avoids welding entirely and furnishes a construction in which a broken part can be quickly and easily replaced.

The invention therefore consists in a tackle-block composed of separable parts, substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a single-sheave tackle-block constructed according to my invention. Fig. 2 is a central cross-sectional view of the upper portion of the block and of a part of the sheave and rope. Fig. 3 is a plan view thereof omitting the cheek-pieces and the sheave. Fig. 4 is a perspective view of the upper portion of the block shown in Figs. 2 and 3 with the band and the shank of the hook in separate details. Fig. 5 shows a perspective view of the upper portion of the side pieces or hook-straps of the block and the in-

intermediate piece which adapts the block to the use of two sheaves. Fig. 6 is a plan view of Fig. 5 with the binding-ring in position, as seen in Figs. 2 and 3. Fig. 7 is a perspective view of the intermediate piece alone.

A represents the hook-straps, two of which are used with each block. These straps are fashioned, as shown, by drop or press forging in suitable dies, and have their upper portions bent an equal distance, as at *a*, to make room between them for the cheek-pieces B and the sheave C. A semi-cylindrical section of a neck *a'* is formed on the upper portion of each section A, and these together, when united, as seen in Fig. 2, by the band or ring D around said neck, form a swivel-bearing for the hook E. The hook has the usual head *e*, which comes within the inwardly-bent shoulders or portions *a*, and bears beneath against the same to take the load, and a collar or bead *e'* outside of the neck *a'*. The shank of the hook is free to turn or swivel in the straps A, when the said straps are firmly held together along their meeting edges, by the band D, and the said band is temporarily fastened in position by passing it over the hook in a heated condition and then shrinking it on the neck *a'*. If this be not enough to hold it in place, a little riveting on the neck *a'* around the inner edge of the band will serve the purpose. The head *e* and collar *e'* of the hook-shank help to keep the straps or strap-sections A together vertically, while the band or ring D serves to keep them in vertical relation.

The sheave-spindle F is supported in eyes in the lower ends of the straps A, and the sheave C and the cheek-pieces B are supported on said spindle between the said straps.

In Figs. 5 to 7 I show the invention adapted to a double tackle-block, in which two sheaves are employed. In this case I use an intermediate or division plate or piece H, which serves to separate the sheaves and as a central support for the sheave-spindle. This piece, also, like the side pieces or straps A, is drop or press forged into the shape shown, and has a head *h* widened in all directions and provided with inwardly-projecting portions *h'*, corresponding to the parts *a* of the straps, and segmental portions *h²*, forming opposite and central parts of the neck of the block in which the hook-shank is held. Be-

neath and within the shoulders h' is an open space for the head e of the hook-shank. The construction of the neck sections or portions a' on the straps A is such, when the intermediate piece H is used, that said sections, together with the segments h^2 , will form a true circle, and the ring D will encompass this neck thus constituted, the same as it does in the single block shown in Fig. 2. The head e of the hook comes beneath the shoulders h' and the shoulders a , and takes all the strain upon the block, so that no direct strain whatever comes on the ring D. This is true in both the forms of block shown.

By the foregoing construction a much lighter block is produced than formerly with the same strength, and the cost of manufacture is reduced fully one-half. The lightness of the block makes it much more convenient in use, and the facility with which it may be separated when any part is broken and again reunited is a material and popular advantage over the old style of solid-welded block.

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

1. The strap-sections each constructed with a neck portion, a hook held in said neck, and a ring around the neck, substantially as described.

2. The separate strap-sections forming the

support for a sheave and provided each with a part of the neck for holding the hook, in combination with a hook having a shank free to turn in said neck and a head on its lower end, and a binding-ring about the neck, substantially as described.

3. The separate strap-sections and the division-plate formed each with a part of a cylindrical neck, a hook held in the neck, and a ring around the neck, substantially as described.

4. The strap-sections constructed at their upper ends to form a neck, a hook-shank having a head and a bead between which said neck is held, and a ring around said neck for locking said sections together, in combination with cheek-pieces on said strap-sections and a sheave, substantially as described.

5. The separate strap-sections having neck portions and the division-plate midway between said sections, having projections forming the middle part of the neck, a hook free to turn in said neck, and a tightening-ring around the neck, substantially as described.

Witness my hand to the foregoing specification this 15th day of May, 1891.

HENRY V. HARTZ.

Witnesses:

H. T. FISHER,

H. L. McLANE.