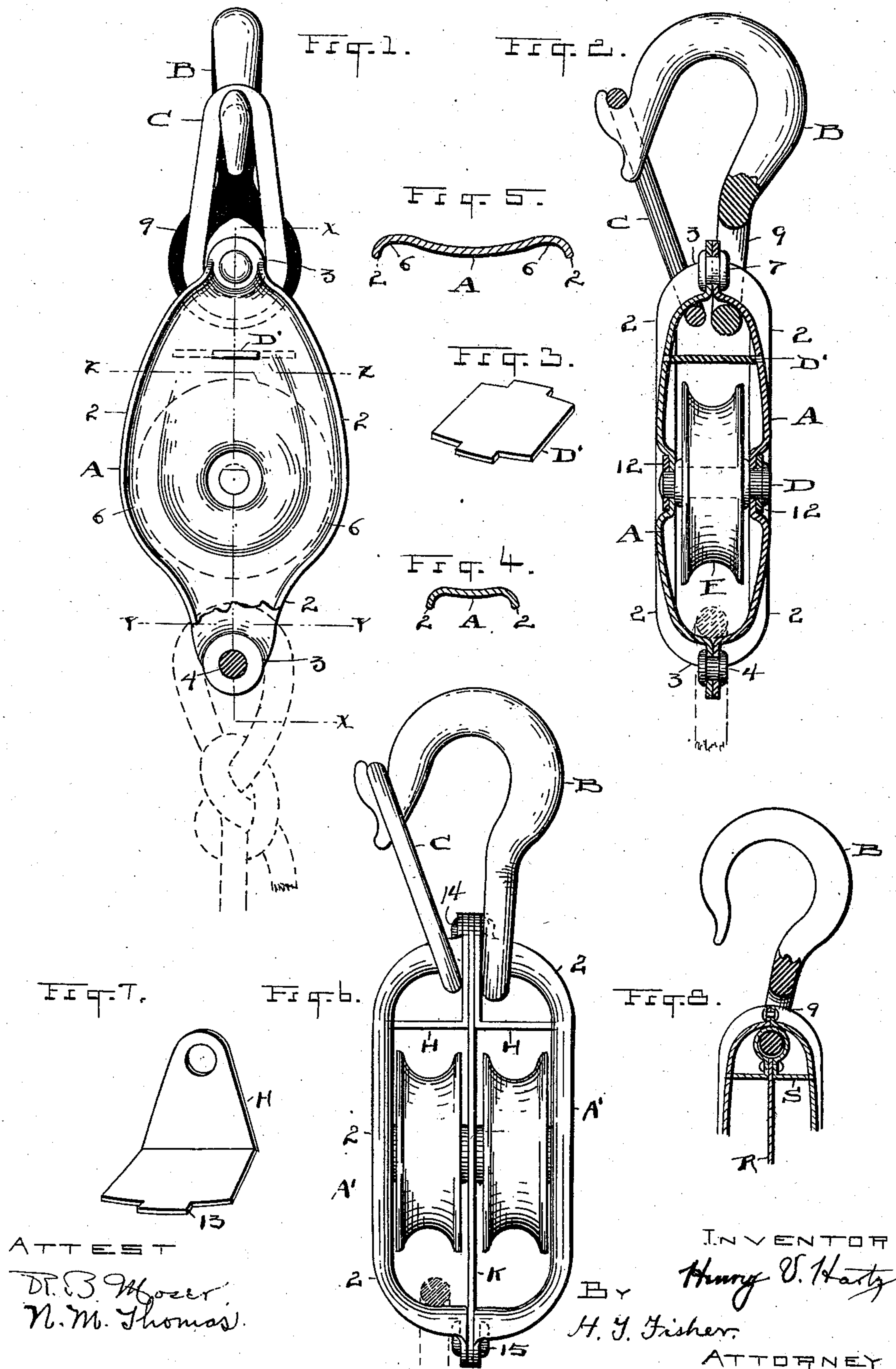


(No Model.)

H. V. HARTZ.
TACKLE BLOCK.

No. 548,915.

Patented Oct. 29, 1895.



UNITED STATES PATENT OFFICE.

HENRY V. HARTZ, OF CLEVELAND, OHIO.

TACKLE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 548,915, dated October 29, 1895.

Application filed April 5, 1895. Serial No. 544,521. (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 tackle-blocks; and the invention consists in a tackle-block constructed and arranged substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved tackle-block in which a single sheave is used; and Fig. 2 is a vertical central sectional elevation thereof on line *xx*, Fig. 1. Fig. 3 is a detail of the brace used in the single block as seen in Figs. 1 and 2. Fig. 4 is a cross-section on line *yy*, Fig. 1, showing the shape of the cheek-pieces on that line. Fig. 5 is a cross-section of one of the cheek-pieces on line *zz*, Fig. 1. Fig. 6 is an elevation of a double block, as hereinafter more fully described; and Fig. 7 is a detail of one of the angle-braces therein, two being used. Fig. 8 is a view of the top portion of a modified form of double block in which the middle partition-plate does not extend through to the top of the block and is engaged at its top between the flat bent sides of the brace-piece, as hereinafter described.

It will be noticed as a novel feature of this construction of block that it entirely dispenses with straps or other parts at its sides which have always heretofore been depended upon to provide bearings for the sheave and connections for the hook, and that in this case the hook is directly engaged in the cheek-pieces, as is also the sheave or sheaves, and there is no other connection or support whatsoever. To accomplish this construction and the obvious cheapening and simplification of the block, it has necessitated a peculiar formation of the cheek-pieces, each of which is designed to be strong enough to serve the purpose of the cheek-pieces and straps combined in the old construction. To this end I have fashioned the said cheek-pieces A, Figs. 1 and 2, with a short or rather sharply-curved flange

2 all around its edge, said flange extending outward and from end to end of the cheek-piece, losing itself at the inwardly-curved extremity 3, where the two cheek-pieces are riveted together by means of heavy rivets 4 7.

As a further feature of construction of the cheek-pieces, it will be noticed that they are struck up with an outward swell across their center, inclining in both directions laterally toward the channel or depression 6 at the base of said flange 2. This, with the flanges, serves to make them both rigid and strong and enables me to dispense with the usual side straps.

The upper ends of the cheek-pieces are riveted together by a rivet 7, corresponding to the rivet 4 below, and at the point where they approach the rivets they are drawn together and curved and rounded on the inside and of such size in cross-section as to be especially adapted to the eye 9 of the hook B, affording the said hook all the room it needs for every variety of service. By the side of the hook is also engaged the reinforcing-link C, as clearly seen in Figs. 1 and 2. It will be noticed as a feature of this association of link and hook that the pull comes off the immediate center of the block and on the short curves or bends in the neck, as seen in Fig. 2, thus partially relieving tendency to collapse the sides.

The immediate centers of the cheek-pieces have each depressions with central holes for shaft or spindle D of the sheave E, in which said shaft is made rigid. This depression of the cheek-piece at the point where the pull of the sheave occurs assists materially in strengthening it at this point; but I also reinforce the cheek-piece by means of reinforcing-pieces 12, placed in the recesses and bearing upon the edges thereof. This reinforcement is not absolutely necessary, but promotes strength of the parts for heavy work.

A further element of strength and service is the cross-brace D', Fig. 3, which has slight projections or tongues at its ends engaging in corresponding slots in the cheek-pieces, and serves to keep the cheek-pieces spread at that point and prevent the tendency to draw together under excessive and unusual strain. In Fig. 7 I show an angle-piece H, provided with a tongue 13 at one end to engage a slot in the cheek-piece and a hole in the other end to be engaged by the rivet 14, which binds the

sides A' of the block and the partition-plate K together. The tongue 13 engages in a slot in the cheek-piece as in Fig. 1, and there is an angle-brace H for each side of the double block. The division-plate K is the same width as the cheek-pieces and is secured at both ends by the rivets 14 and 15 therewith.

The cheek-pieces and the braces and the hook and link are in all cases put together before riveting occurs; but the sheave and shaft may be put in place afterward. The eye of the hook and the link are threaded through by the cheek-pieces and retain their position permanently therein.

An important distinguishing and novel feature of this construction of tackle-block over any other hitherto known to me is the dispensing with the usual becket and thimble or eye to which the rope or cable is attached at the end opposite the hook. I use nothing of this kind, but have the cheek-pieces so fashioned and rounded, as shown and described, that they are adapted to have the rope or cable attached thereto without any interposed mechanism whatsoever and with all the security and durability that any of the old constructions have afforded. This works economy to the manufacturer and the consumer and makes an exceedingly satisfactory and practical way of connecting the rope.

If preferred, the link C may be dispensed with and the construction will be complete without it; but I prefer the block with said link and have so shown it. If not used, the double block would be modified, as shown in Fig. 8, in which the middle plate R stops short and the brace-piece S has a loop at its center engaged by the edge of the hook. In Figs. 1 and 2 there would be no change of construction, but omission of the link.

What I claim is—

1. A tackle block formed of sheet metal

cheek pieces bent inward at their ends and riveted together at their extremities, and a hook threaded through its eye into the extremities of said cheek pieces, substantially as set forth.

2. The block described having metallic cheek pieces with their ends turned inward on curved lines and rounded on the inside of the bent portion to form a bearing for the hook and riveted together at their extremities, and the hook threaded through by said ends, substantially as set forth.

3. The block described having stamped up metallic cheek pieces provided with perforations at about their center and shouldered depressions about the said perforations on their outer side, in combination with perforated reinforcing pieces in said depressions, and the sheave spindle headed on the outside of said reinforcing pieces, substantially as set forth.

4. A tackle block having cheek pieces bent inward and riveted together at their ends, a hook threaded into the said cheek pieces and a separate brace piece set between the said cheek pieces at the hook end of the block, substantially as set forth.

5. The block described, comprising cheek pieces struck up from plate metal and having the ends of each piece narrowed and rounded on the inside and bent inward together and rivets connecting the said ends, whereby a rounded surface is formed at one end of the block for the hook and at the other end for the rope, in combination with the hook and the rope, substantially as set forth.

Witness my hand to the foregoing specification this 28th day of March, 1895.

HENRY V. HARTZ.

Witnesses:

H. T. FISHER,
R. B. MOSER.