

*J. F. Harcourt,*  
*Tackle Block.*

*N<sup>o</sup> 78,663.*

*Patented June 9, 1868.*

Fig:1.

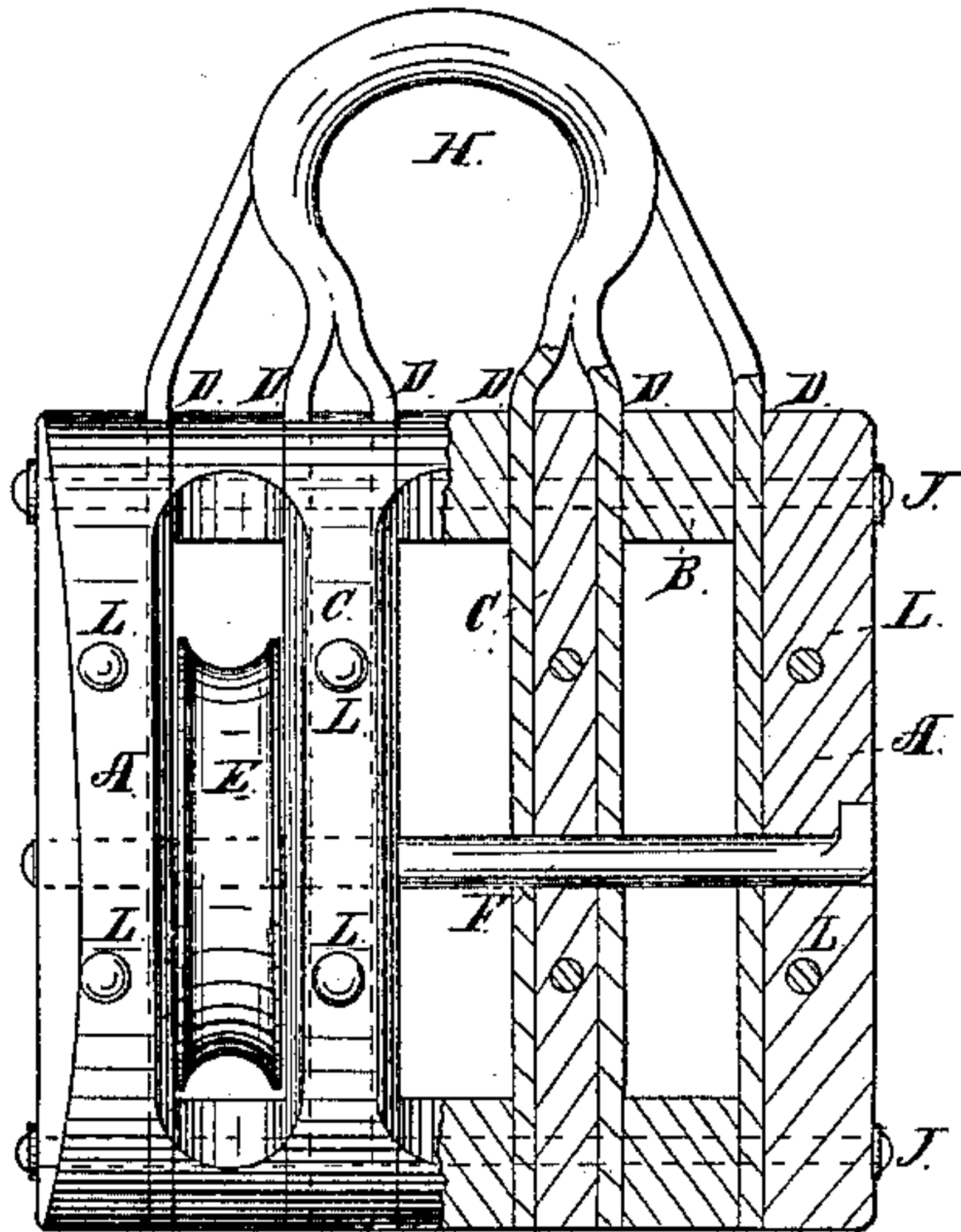


Fig: 2.

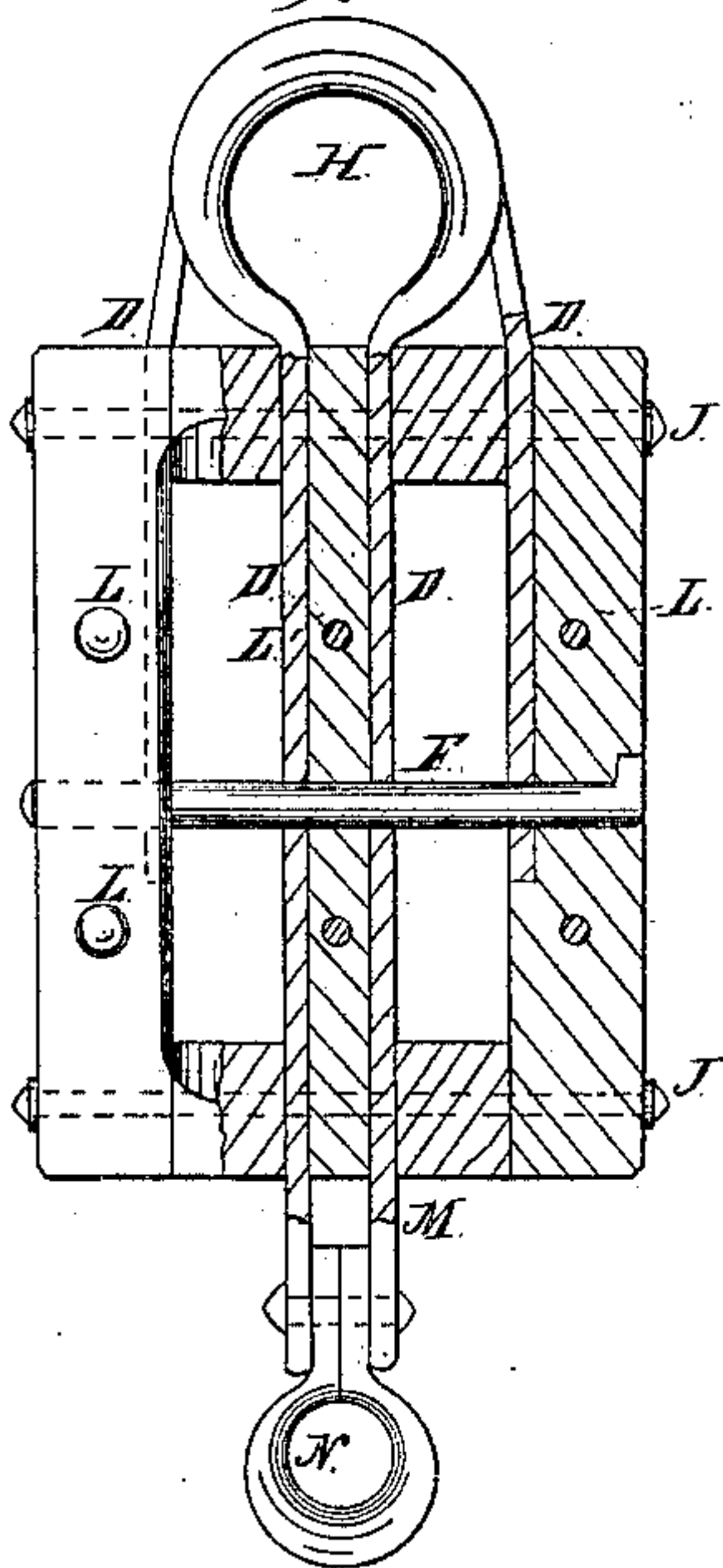
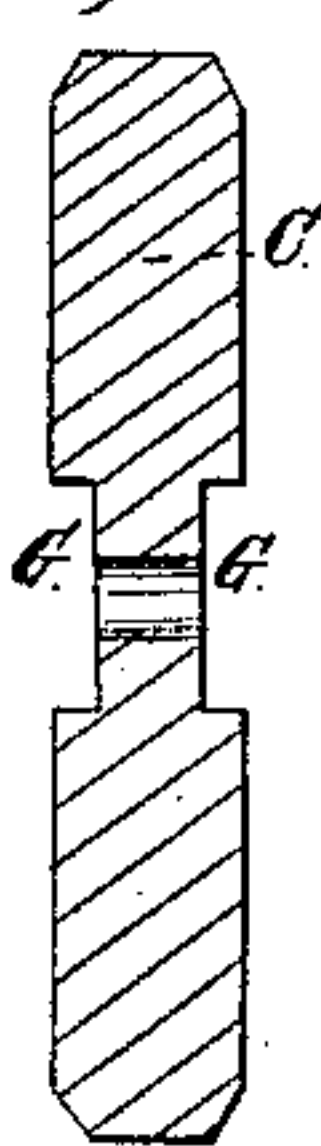
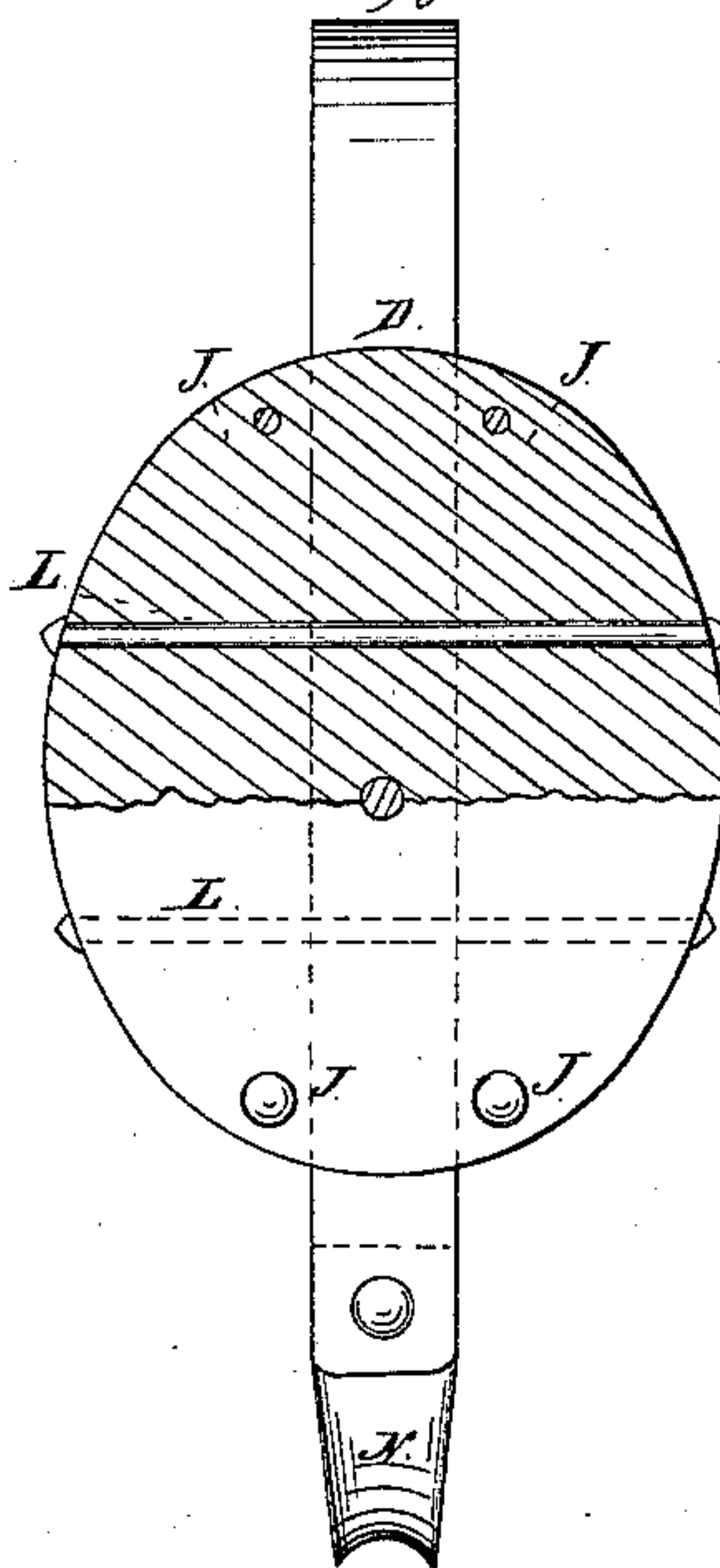


Fig. 4.



*Fig: 3.*



Witnesses:  
J. Willouard  
H. G. Webb.

Inventor:  
J. F. Harcourt  
By Knight Bros. Atty's.

# United States Patent Office.

JOSEPH F. HARCOURT, OF CINCINNATI, OHIO.

*Letters Patent No. 78,663, dated June 9, 1868.*

## IMPROVEMENT IN TACKLE-BLOCKS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO WHOM IT MAY CONCERN:

Be it known that I, JOSEPH F. HARCOURT, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Sheave or Tackle-Blocks; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This is an improvement in the class of inside iron-strapped tackle-blocks, having two or more sheaves, whereby the pin or axle is effectually supported without detracting from the strength of the partitions.

Figure 1 is a partially-sectionized front elevation of a triple sheave-block, embodying my improvements.

Figure 2 is a similar view of a double sheave-block.

Figure 3 is a partially-sectionized side elevation of my improved block for two or more sheaves.

Figure 4 is a cross-section of one of the partitions detached.

Inside iron-strapped tackle-blocks as heretofore constructed have proved insufficient for the rough usage to which such are often subjected, because the partitions have either been separated each one into two parts by the strap, and liable to be torn apart so as to expose the sheaves to fracture, and the rope to be frayed out or run off, thus destroying the utility of the block, or where the partitions have not been so separated, then the pin, having been inadequately supported, in consequence of having only a wooden bearing next the sheaves, has become bent or broken in use.

In my form of block, the partitions can be made of any desired thickness, without either increasing the weight and thickness of the straps or the distance of the sheaves therefrom, and besides being in one piece, are susceptible of additional strength by the introduction of counter-rivets when desired.

The wooden portion of my framework or block proper consists of the usual number of cheeks or sides, A, partitions C, and end-pieces B.

The straps D D' are broad in the direction parallel with the sheaves E, and thin in the plane of the pin or axle F, and are let into grooves, G G', made in the sides of the cheeks and partitions, respectively, so as for that part of them near the sheaves to be flush, or nearly so, with the said cheeks and partitions, and while permitting each cheek and partition to be in one continuous piece, also bringing the metal strap close up to the sheave, so as effectually to support the pin.

The inner strap is turned over the outer strap, so as to form a convenient eye, H, for the insertion of a hook or cordage-lashing, and for a triple pulley. The ends of the inner strap, D', are bifurcated, so as to extend on each side of the two partitions, as at I, fig. 1.

The main rivets, J, pass from side to side entirely through the cheeks, partitions, and end-pieces, but are not, as in other inside-strap blocks, the only means of junction of these parts, because each partition, as well as cheek, is in one unbroken piece, and, furthermore, is susceptible of being secured by cross or counter-rivets, L, which may be passed entirely through each cheek and partition, from edge to edge, without interfering with the straps.

The central strap may, when required, be extended down, as at M, for the attachment of a becket, N.

I claim herein as new and of my invention—

A two or more sheave-tackle block, whose partitions, C, extend from side to side in one piece, and are formed with grooves, G', in their sides, for the reception of the inner forked straps D', all as herein described, for the purpose specified.

In testimony of which invention, I hereunto set my hand.

JOSEPH F. HARCOURT.

Witnesses:

GEO. H. KNIGHT,

JAMES H. LAYMAN.