

(No Model.)

J. W. NORCROSS.
Pulley Block.

No. 241,703.

Patented May 17, 1881.

Fig. 1.

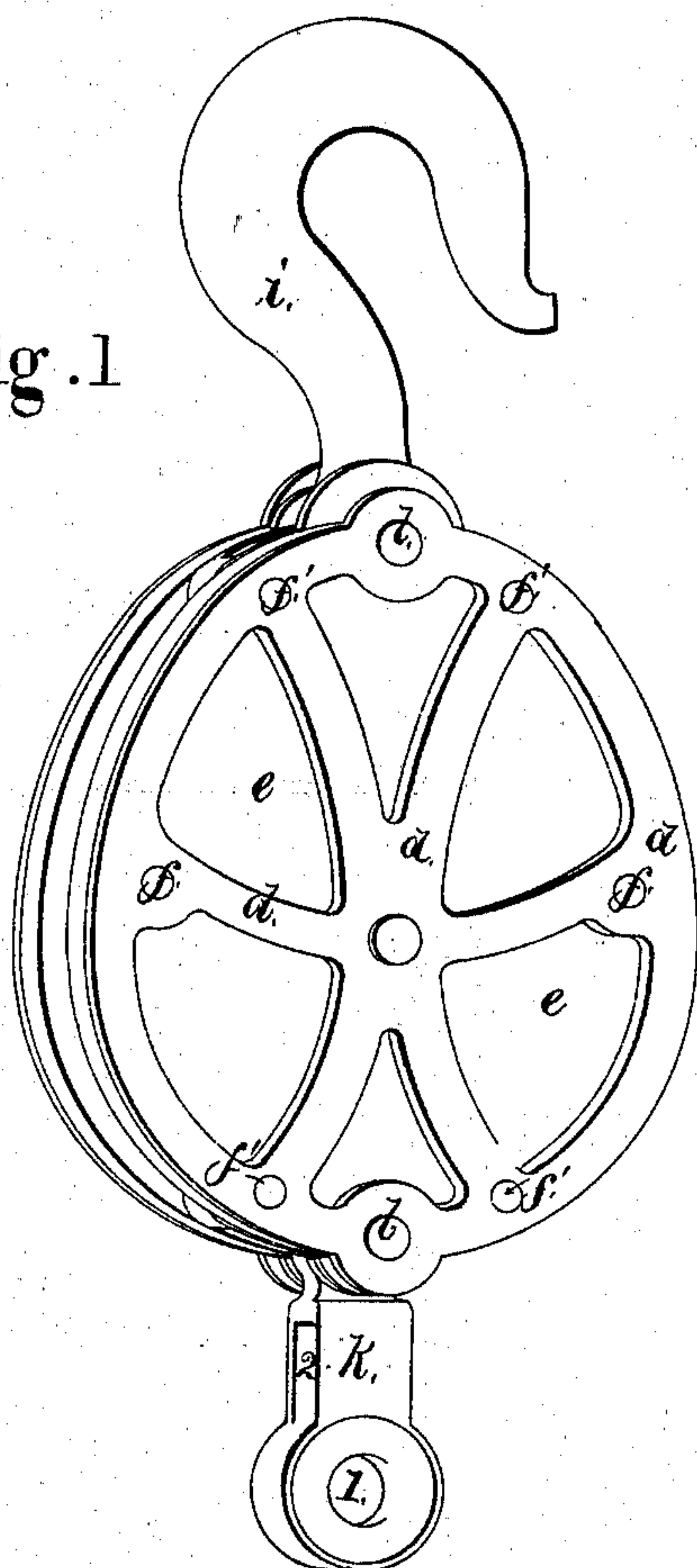


Fig. 3.

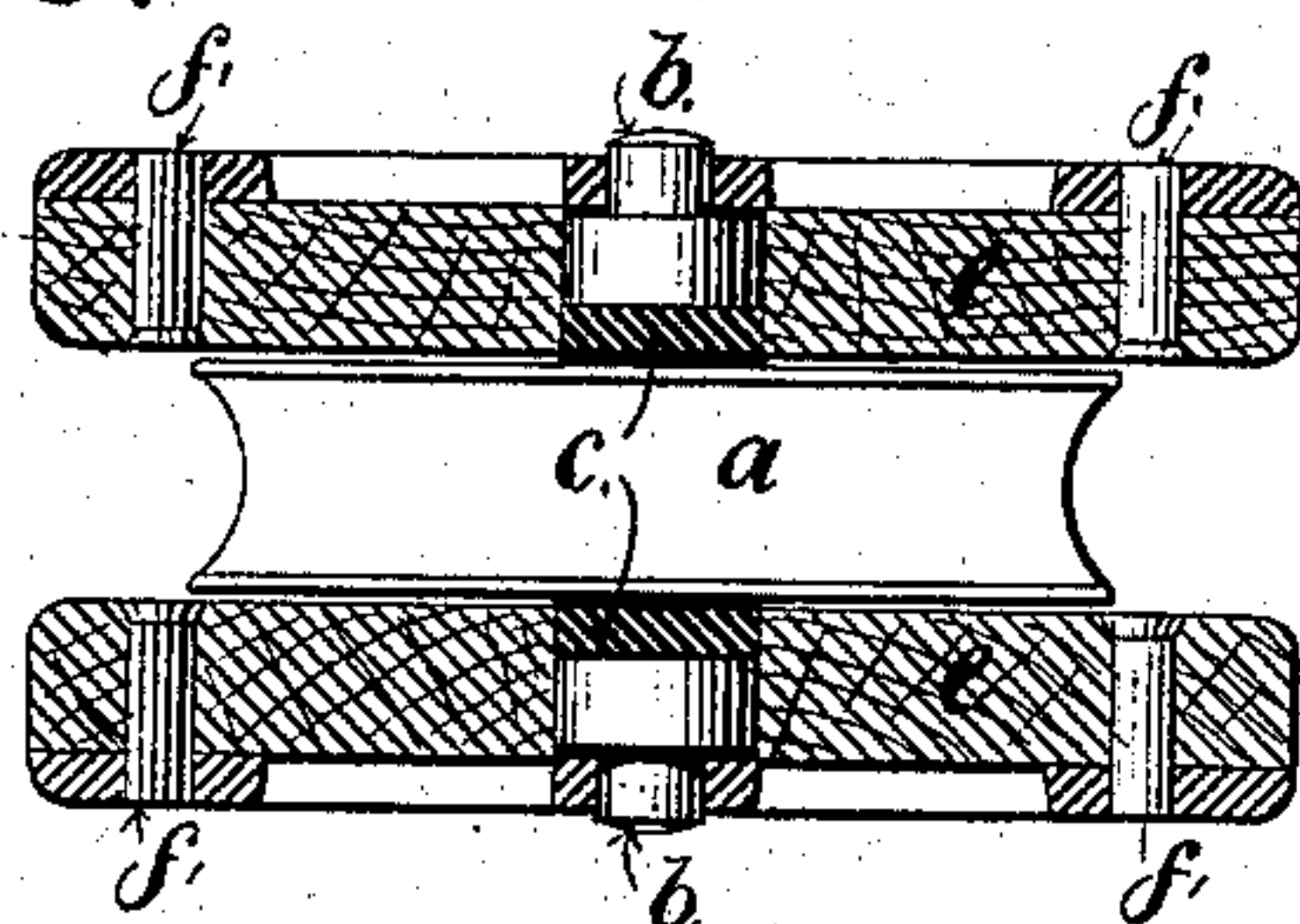


Fig. 2.

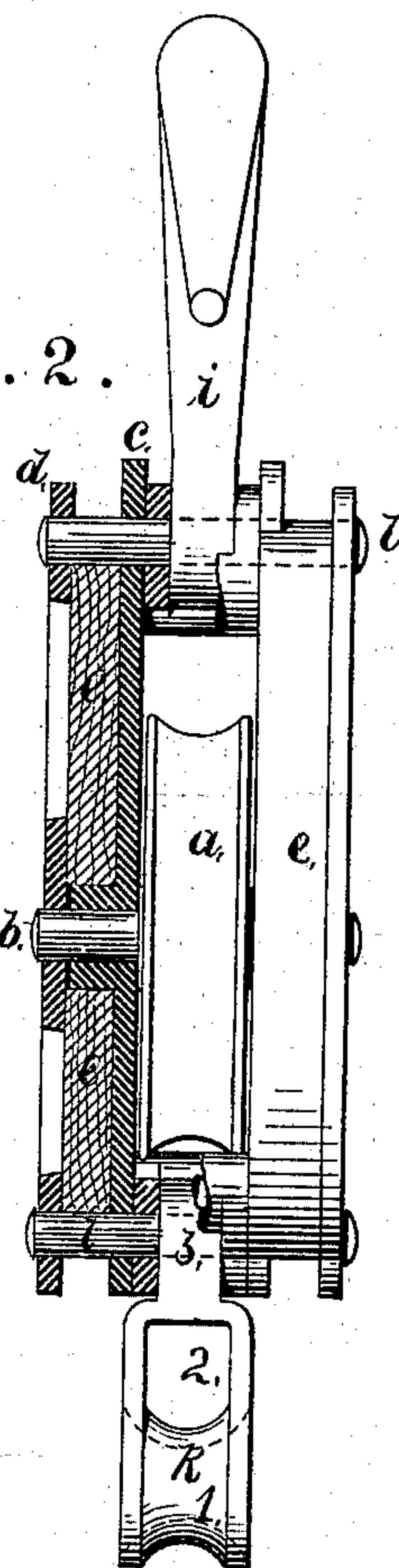
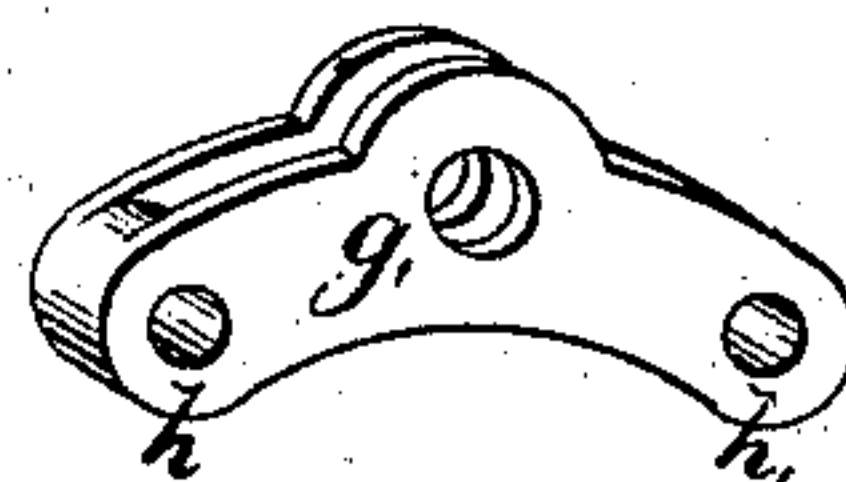


Fig. 4.



WITNESSES:

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JOSEPH W. NORCROSS, OF BOSTON, MASSACHUSETTS.

PULLEY-BLOCK.

SPECIFICATION forming part of Letters Patent No. 241,703, dated May 17, 1881.

Application filed February 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. NORCROSS, of the city of Boston, county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Pulley-Blocks; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the construction of pulley-blocks for ship and other uses; and it consists in the peculiar construction of a metallic pulley-block provided with wooden cheeks or sides, as will be more fully set forth hereinafter.

Figure 1 is a perspective view of my improved pulley-block. Fig. 2 is an end or edge view of the same, partly in section. Fig. 3 is a transverse section, showing the manner in which the wooden sides or cheeks are secured to the metal frame; and Fig. 4 is a perspective view of the swivel-piece to which the hook and becket are secured.

In wooden pulley-blocks as heretofore constructed the wood is liable to split where the rivets pass through the wood, and in iron pulley-blocks the rope is liable to be chafed and injured by contact with the iron sides.

The object of this invention is to combine the advantages of both constructions, relieve the wood of all strain, and secure it against the metal frame, so as to protect the same.

In the drawings, *a* represents the sheave or pulley of the block. *b* is its axle; *c*, a strap extending from end to end of the block close to the pulley.

d is a cast-metal frame of the size of the block. This frame *d* may be made convex on the outside of the block and provided with a groove to receive a rope-strap, as is usual in the wooden pulley-blocks.

ee are the wooden sides or cheeks, which are secured to the frame *d* by the rivets *ff*. The two sides forming the block are secured together by the rivets *f'f'*, passing through the sides and through the holes *hh* in the end piece, *g*, the central portion of which is slotted, so as to receive the hook *i* or becket *k*, which are held by the rivets *ll*, passing through the two outer frames, *d d*, the straps *cc*, and the end piece, *g*, and therefore transmitting the strain to the metal frame of the block, making a more durable and stronger pulley-block than was possible in the old construction. The wooden sides or cheeks cannot be injured, as

they are secured to and protected by the metal frames or sides *d d*.

By the use of the end piece, *g*, an improved thimble or becket can be used, and the blocks can be brought closer together. The becket *k* has the thimble 1, the loop 2, and the eye 3, through which the rivet *l* passes, all made in one piece and strongly secured to the block, while the becket can swing on the rivet *l*, to freely adjust itself to the strain.

The sides *d d* are preferably made of an open frame-work of cast or stamped metal, having an outer rim and ribs extending from the rim, preferably from where the rivets pass through the same to the central bearing of the sheave-axle, so as to combine the greatest possible strength with the least material and weight. Any other form combining strength and lightness may, however, be adopted.

Open skeleton sides, such as are shown in Fig. 1, made of metal, nickel-plated, or polished, present an agreeable contrast with the wooden lining.

Such pulley-blocks form a desirable outfit for pleasure-yachts and for other purposes, where their finished appearance is more in harmony with the surroundings than pulley-blocks as usually constructed.

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

1. In a pulley-block the cheeks of which are made of wood, the skeleton metal frame *d*, riveted to said cheeks and receiving the axle of the sheave, substantially as described.

2. The combination, with the two sides of a pulley-block, of the end pieces, *g*, slotted to receive the hook and becket, and provided with holes *hh*, through which and the sides rivets are passed to secure the whole together, substantially as described.

3. In a pulley-block having a slotted end piece, *g*, the becket *k*, provided with the eye 3, loop 2, and thimble 1, made in one piece, substantially as set forth.

4. A pulley-block composed of wooden cheeks and skeleton metal frames *d*, placed over such cheeks, and all riveted together, combined with sheave *a*, end pieces, *g*, strap *c*, hook *i*, and becket *k*, substantially as described.

In witness whereof I have hereunto affixed my name.

Witnesses: JOSEPH W. NORCROSS.
JOSEPH A. MILLER, Jr.,
WM. L. COOP.