

No. 652,501.

Patented June 26, 1900.

J. H. BAER,
HOISTING APPARATUS.

(Application filed Apr. 11, 1899.)

(No Model.)

Fig. 1.

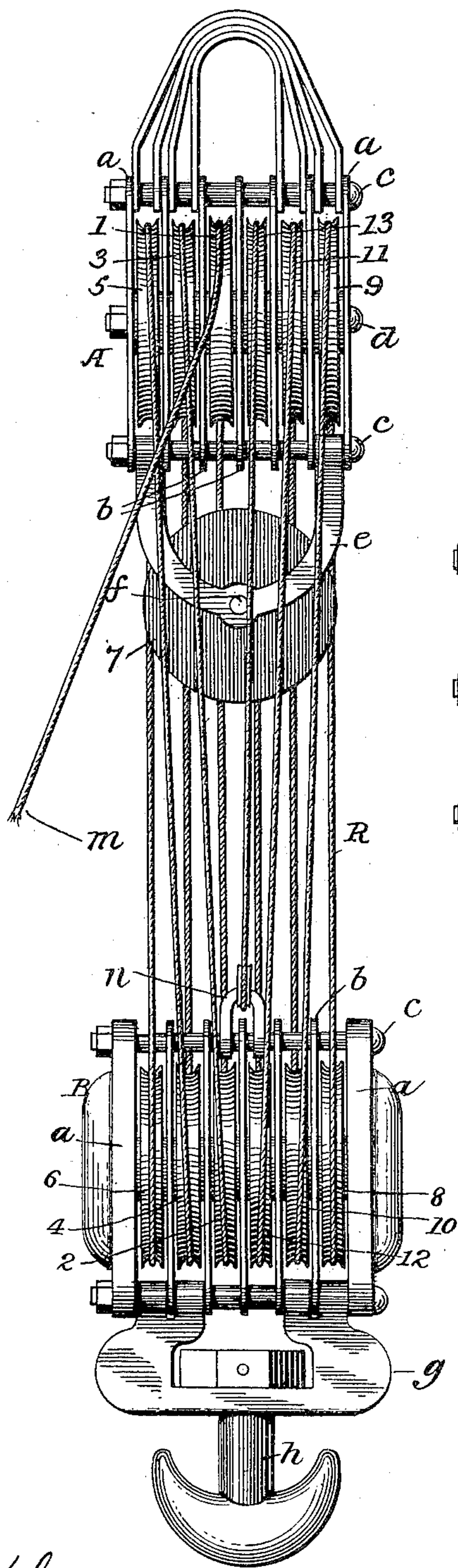
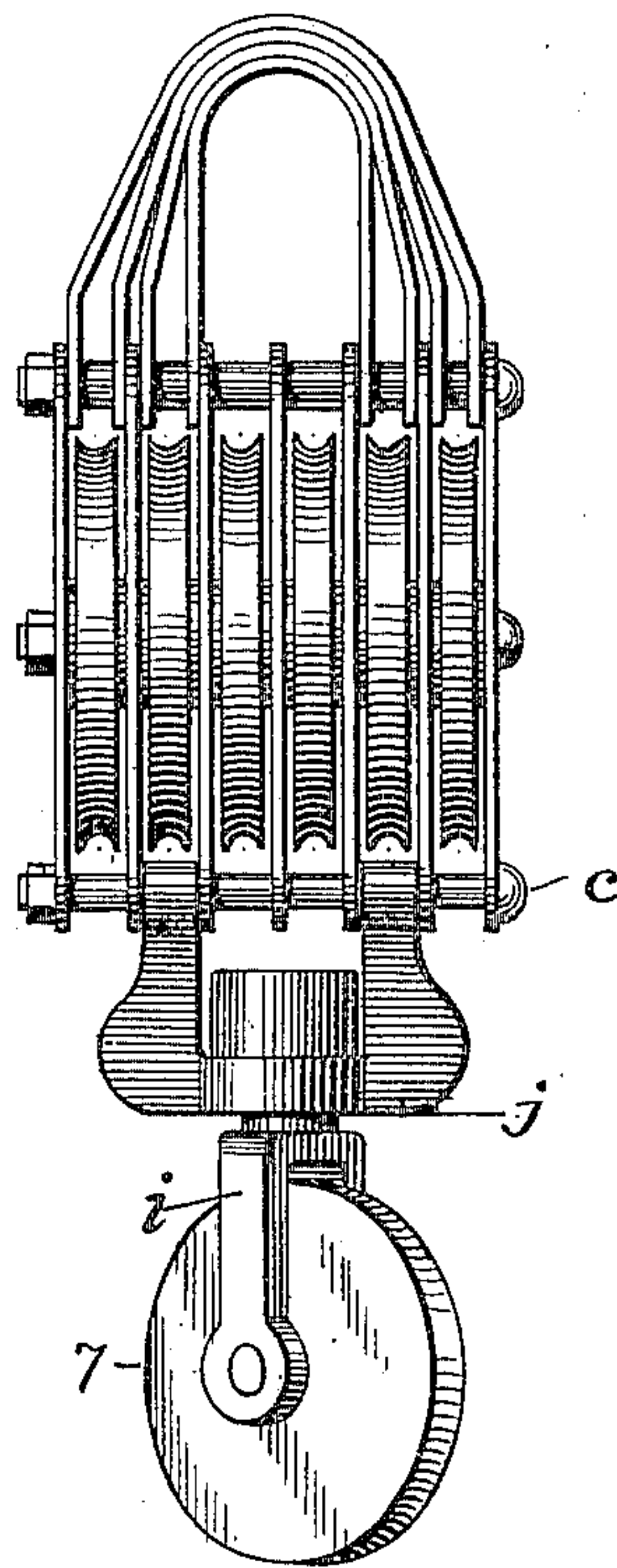


Fig. 2.



Witnesses

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JOHN H. BAER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO HERBERT LOUD, OF EVERETT, MASSACHUSETTS.

HOISTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 652,501, dated June 26, 1900.

Application filed April 11, 1899. Serial No. 712,629. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BAER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful improvements in Hoisting Apparatus, of which the following is a specification.

My invention relates to improvements in hoisting apparatus, and particularly to an improvement in pulley-blocks.

The object of the invention is to produce a pulley-block that will be particularly adapted for use in a hoisting apparatus employing a single rope or chain and will make it possible to obtain a maximum amount of power with a minimum of friction or binding of the parts.

The invention will be more particularly described with reference to the accompanying drawings, in which—

Figure 1 illustrates a hoisting apparatus embodying my improved pulley-block, and Fig. 2 illustrates a modified form of block.

Referring to the drawings, A indicates the upper block, and B the lower block, of a pulley system or hoisting apparatus, each block being provided with a plurality of sheaves or pulleys. In the drawings each block is shown as having six sheaves, but the number of sheaves is immaterial, my invention being applicable to any block having three or more sheaves. The blocks consist of side plates *a* and intermediate plates *b*, connected by suitable bolts *c* and provided with a central bolt or axle *d*, upon which the sheaves revolve.

As shown in Fig. 1, a hanger *e* is suspended upon the lower bolt *c* of the upper block, and in the hanger *e* is mounted a sheave 7, having its axle *f* at right angles to the direction of the axle *d*. Beneath the lower pulley-block is a socket *g*, to which is swiveled a suitable hook *h* for sustaining the load to be hoisted.

The rope R passes over the sheaves in the order in which they are numbered, from 1 to 13, inclusive. The hauling end of the rope *m* extends to the drum of the engine or motor. From this point the rope extends over the pulleys 1 2 3 4 5 6 in succession from the middle sheaves to the outside sheaves of the blocks, on one side thereof. The rope then extends over the transverse sheave 7 to the outside sheaves on the opposite side of the blocks and thence successively over the adjacent sheaves toward the center until it reaches the sheave next to the starting-point, which in the illustration is numbered 13. From this sheave the rope passes down to the lower block, where it is attached to a suitable becket *n*, or the end may be attached to some fixed object. When the number of sheaves in a block is even, the hauling end of the rope will pass over one of the middle pair of sheaves, and when there is an odd number of sheaves in the block it will pass over the middle one.

In Fig. 2 is illustrated a block similar to that shown in Fig. 1, with the exception that the sheave 7 is mounted in a hanger *i*, which is swiveled to a socket *j*, hanging from the lower transverse bolt *c*.

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

The combination with a pulley-block, of the side pieces *a*, the intermediate sheaves, the bolt *c*, the hanger supported on said bolt, and the transverse pulley supported from said hanger, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. BAER.

Witnesses:

JAY R. GRIER,
HERBERT LOUD.