

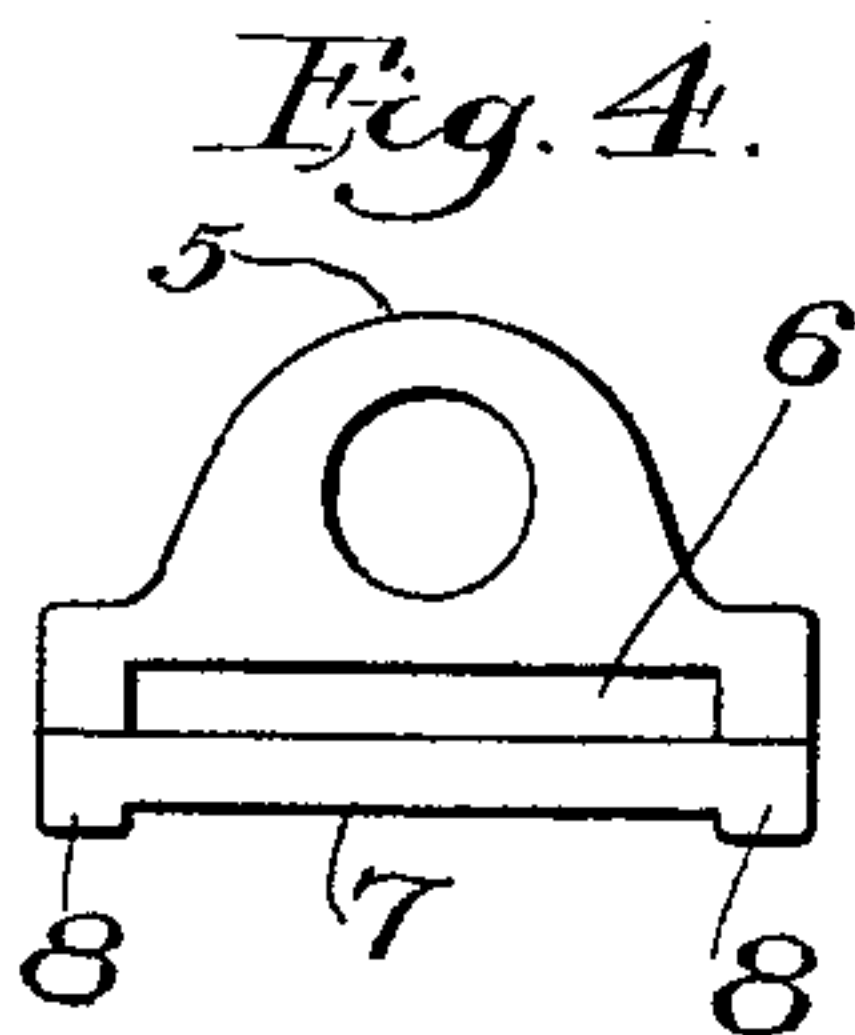
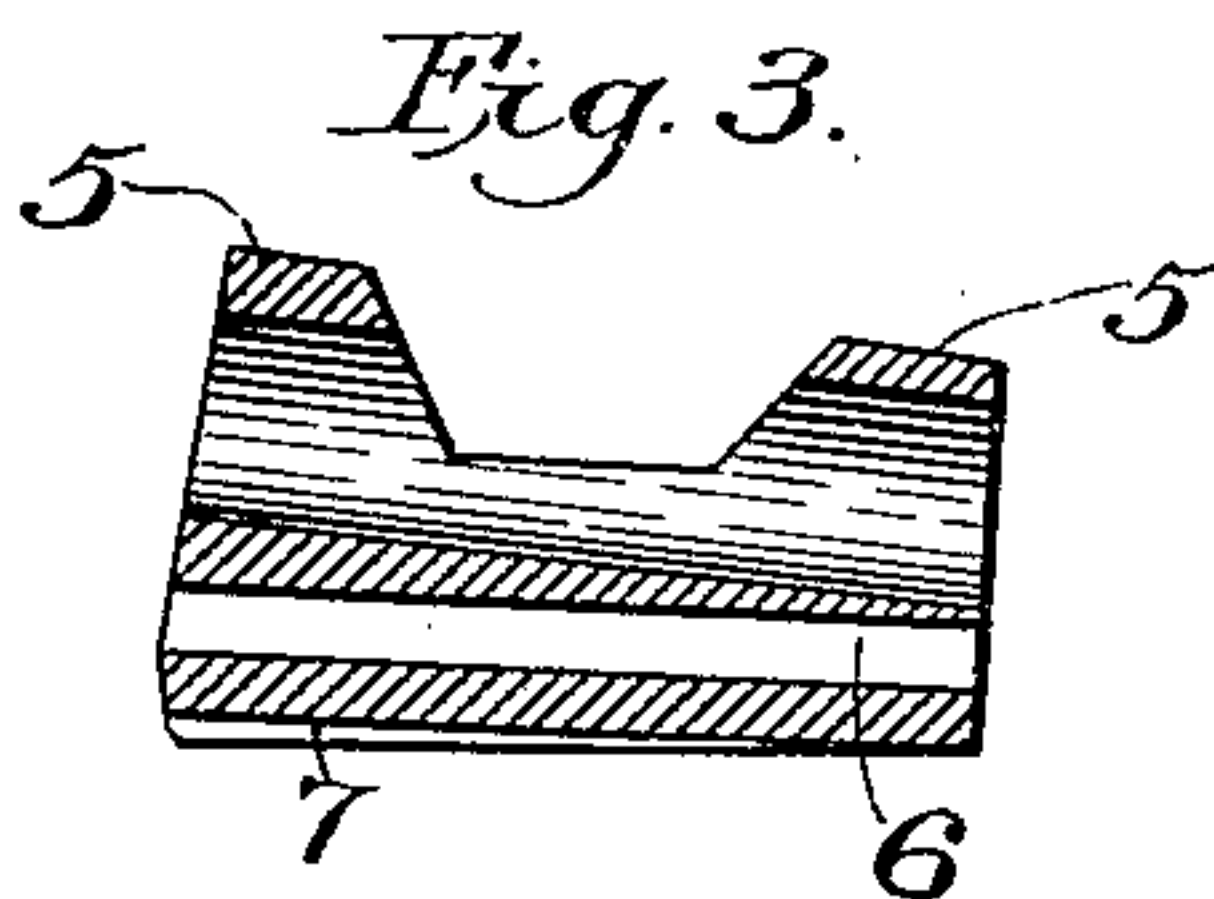
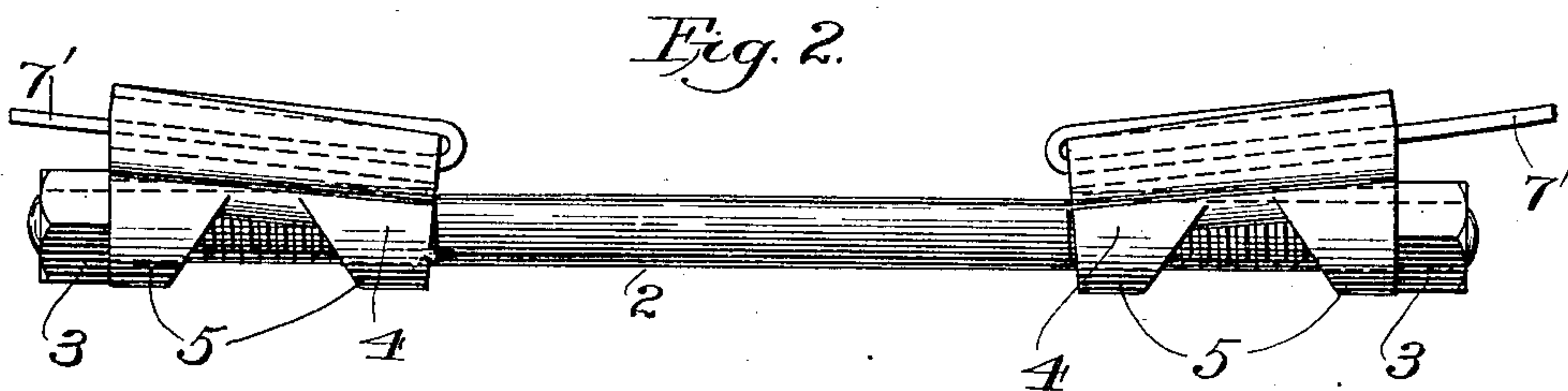
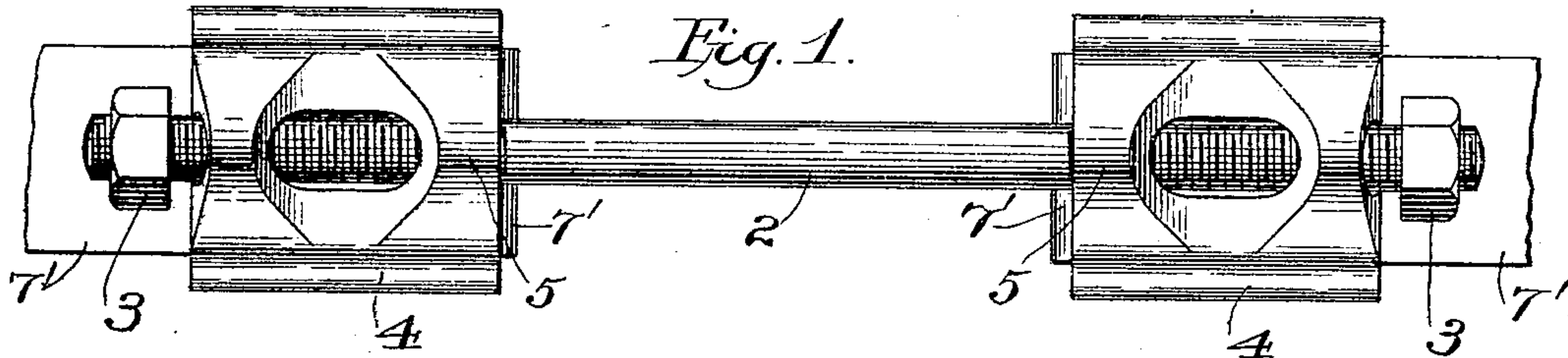
No. 632,030.

Patented Aug. 29, 1899.

D. B. STEVENS.  
BAND FASTENER.

(Application filed May 10, 1899.)

(No Model.)



Witnesses.  
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# UNITED STATES PATENT OFFICE.

DANIEL B. STEVENS, OF AUBURN, MAINE.

## BAND-FASTENER.

SPECIFICATION forming part of Letters Patent No. 632,030, dated August 29, 1899.

Application filed May 10, 1899. Serial No. 716,268. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL B. STEVENS, of Auburn, county of Androscoggin, State of Maine, have invented an Improvement in  
5 Band-Fasteners, of which the following description, in connection with the accompanying drawings, is a specification, like figures on the drawings representing like parts.

This invention relates to "band-tighteners,"  
10 and I use this term generically to include all appliances for fastening bands, loops, or straps to casks, barrels, or analogous curved-surfaced structures; and the object of the invention is to provide a simple device of the  
15 character specified wherein all lateral pressure or strain upon the bolt which unites the two draw-blocks is avoided, it being well known in certain existing kinds of band-tighteners that the bolts are so subjected to  
20 flexure as to render them valueless.

My appliance consists of a bolt having hand-nuts and two blocks slidably located by the bolt and preferably between the respective  
25 nuts, and said blocks are adapted to be connected with the ends of a hoop or band, and they serve, when forced toward each other by properly turning the actuating-nuts, to draw the hoop or band tightly around the barrel, and these draw-blocks have slots or openings  
30 to receive the hoop or band and also have inner faces parallel with the inner walls, respectively, of the slots and against which the bent-over ends of the band or strap fit, and the branches of the band at the turned-over  
35 ends exert substantially similar pressures upon the two pairs of parallel faces, and these pressures, being opposing and directly at right angles to the parallel faces, serve to equalize each other, so that neither of the  
40 blocks can be tipped, as when they are tipped they exert a strain upon the bolt sufficient to bend the same.

In the drawings forming a part of this specification, Figure 1 is a face view of a  
45 band-tightening device constructed in accordance with my invention; Fig. 2 shows my band-tightener in side elevation; Fig. 3 is a longitudinal central section of one of the blocks, and Fig. 4 is a side elevation of said  
50 block as seen from the left in Fig. 3.

Similar characters designate like parts in all the figures of the drawings.

My invention includes in its construction a bolt, as 2, which is made of a suitable length and which is represented as straight and  
55 terminating in screw-threads engageable by correspondingly-threaded nuts 3, between which the blocks 4 are slidably supported by the bolt, and the opposite ends of the band or strap are secured prior to the tightening  
60 operation to these blocks, so that the act of turning the nuts on the bolt will cause the same to engage the respective draw-blocks and force them toward each other to tighten the band. The draw-blocks are generally  
65 cast in one piece and are of substantially duplicate construction, and each is provided with a pair of bored lugs or ears, as 5, at its opposite ends, through which the bolt 2 passes, and the inner walls of the bores are  
70 plain to permit free sliding movement of said blocks. The blocks have strap-receiving slots or openings 6, extending entirely through the same, through which the free ends of the band are passed, after which the said ends  
75 are bent tightly over and placed against the inner flat faces 7 of the blocks, which inner faces, it will be clearly seen upon inspection of Fig. 3, are in parallelism with the inner  
80 walls of the slots or openings.

In applying a band it is first placed around the vessel, and its ends are inserted through the slots 6 in the properly-positioned blocks and bent over the reduced or tapered ends of  
85 said blocks and placed against the inner flat faces 7 of said blocks. The bolt 2 is then passed through the aligned lugs or ears 5 on said blocks, it being evident, of course, that the bent-over portions of the band fit against the vessel snugly. The two nuts are then  
90 applied and turned inward and engaging the two blocks force the same toward each other for stretching the band tightly around the cask, barrel, or other article, and during this motion of the blocks the inner faces 7 and  
95 the inner walls of the longitudinal slots 6 have been subjected to substantially equal and directly opposite thrusts, and being thus applied these thrusts or forces are counteracted by each other, so that no tipping or  
100 side play of the blocks can follow, as in such a case as this a strain is exerted on the bolt or bar sufficient to distort or bend the same out of the proper straight line, and thereby



prevent the successful operation of the same. The blocks have tapering ribs or projections 8 along the opposite edges thereof, the reduced ends of which are in proximity to the 5 shallow or reduced ends of the blocks, and the bent-over ends of the strap are received in the spaces between these ribs or projections, and the latter serve to effectually prevent any side motion of such bent-over ends; 10 but these ribs or projections do not come in contact with the periphery or outer surface of the barrel, as in such a case as this the curvature of the barrel would deflect the blocks from their proper path.

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

1. A device of the class specified, consisting of a single bolt provided with right and 20 left hand threaded nuts and a pair of draw-blocks slidably carried by the bolt between said nuts, and having strap or band receiving slots extending throughout the length of the same, and the inner walls of the slots 25 being straight from end to end thereof, and

said blocks having their inner faces straight from end to end thereof and disposed in parallelism with said inner straight walls of said slots.

2. A device of the class specified, consisting of a bolt provided with right and left hand threaded nuts and a pair of draw-blocks slidably carried by the bolt between said nuts, and having strap or band receiving slots extending entirely through the same, the inner 35 walls of the slots being straight from end to end thereof, and said blocks having their inner faces straight from end to end thereof and disposed in parallelism with said inner straight walls of said slots, and said blocks 40 having tapered side ribs between which an end of the strap is received thereby to limit the side movement of said straps.

In testimony whereof I have signed my name to this specification in the presence of 45 two subscribing witnesses.

DANIEL B. STEVENS.

Witnesses:

ARTHUR H. STEVENS,

DANIEL W. KINSLEY.