

No. 700,704.

Patented May 20, 1902.

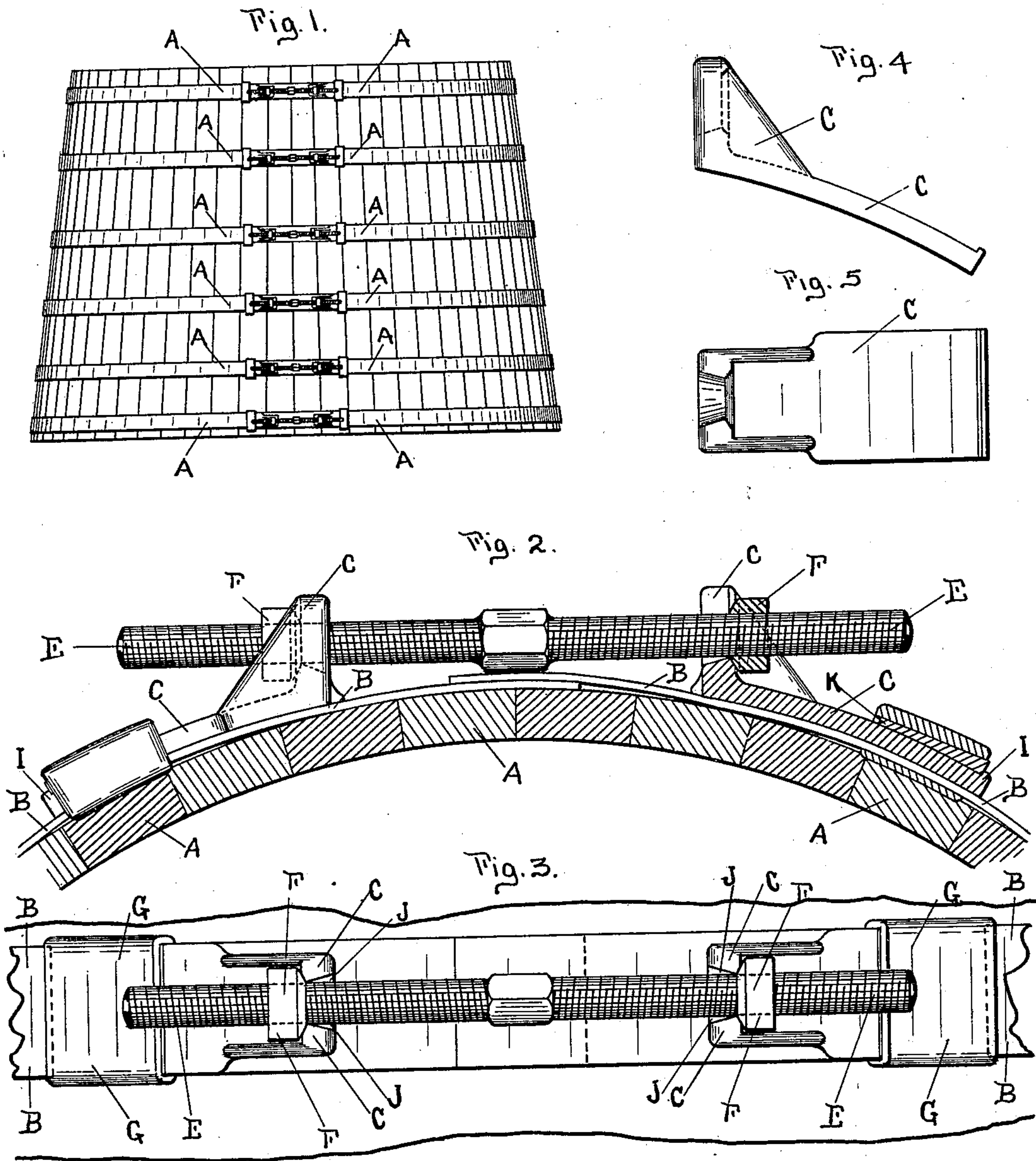
C. L. PARKER.

DEVICE FOR TIGHTENING OR LOOSENING HOOPS OF TANKS, VATS, &c.

(Application filed June 17, 1901.)

2 Sheets—Sheet I.

(No Model.)



Witnesses.

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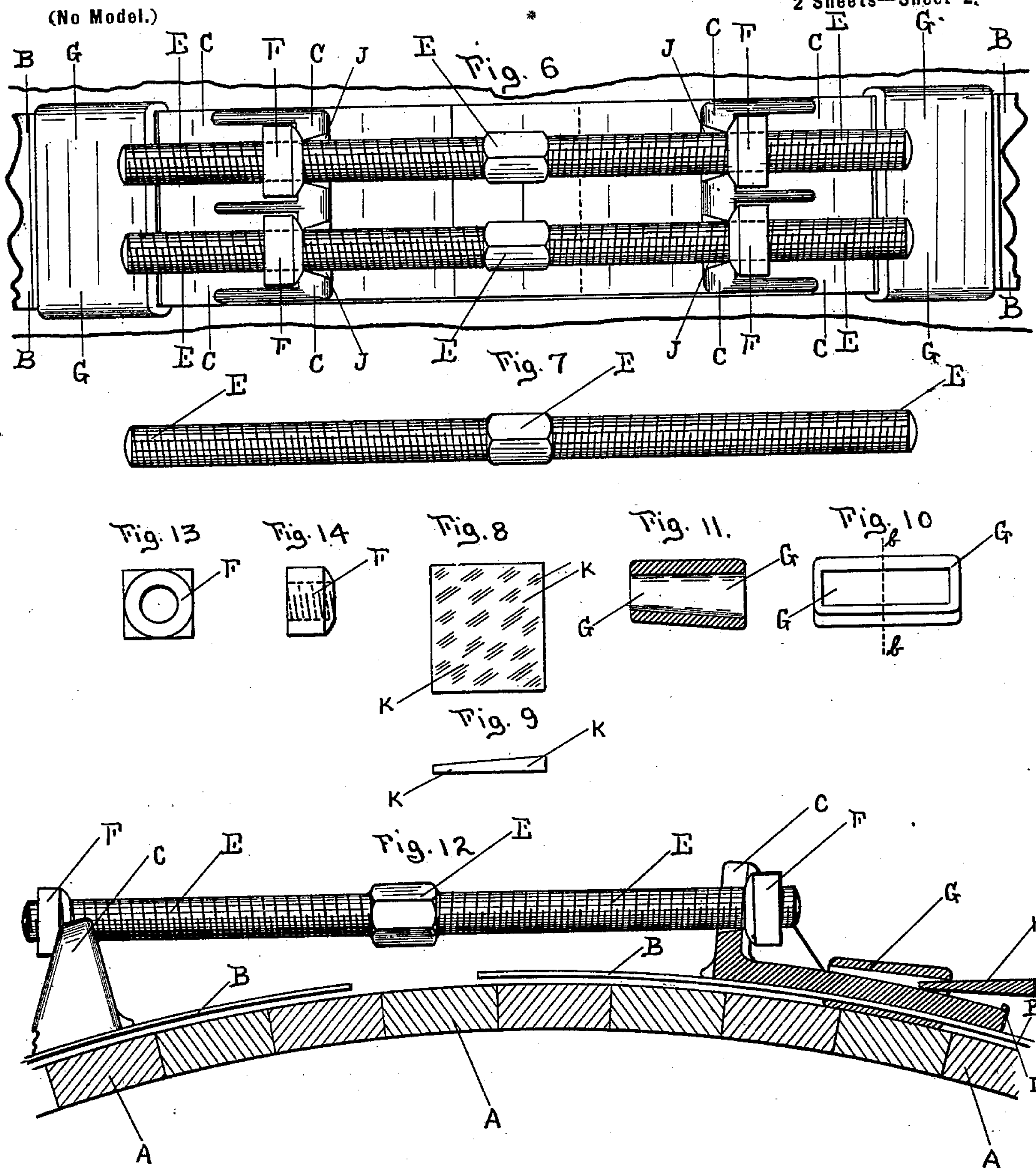
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Inventor  
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# UNITED STATES PATENT OFFICE.

CLARENCE LYMAN PARKER, OF LOS ANGELES, CALIFORNIA.

DEVICE FOR TIGHTENING OR LOOSENING HOOPS OF TANKS, VATS, &c.

SPECIFICATION forming part of Letters Patent No. 700,704, dated May 20, 1902.

Application filed June 17, 1901. Serial No. 64,952. (No model.)

*To all whom it may concern:*

Be it known that I, CLARENCE LYMAN PARKER, of the city of Los Angeles, in the county of Los Angeles and State of California, have  
5 invented certain new and useful Improvements for Tightening or Loosening the Retaining-Hoops of Tanks, Vats, and other Receptacles, of which the following is a full, clear, and exact description or specification,  
10 reference being had to the annexed sheets of drawings and to the letters marked thereon.

My said invention, which relates to the fastening together of the screwed portions, the lugs, and improved connections of the lugs  
15 with the body of the hoops used in tightening and loosening the sections or divisions of wood or other material of which such tanks or analogous receptacles are formed, has for its object not only to obtain a balanced stress  
20 at all times upon the lugs and their connections by a proper bearing and equalized pressure of the screwed parts of the couplings among themselves, but my said invention has also for its object to enable lugs to be fixed  
25 to the hoops at any required position thereon by the conjoint action of a box or buckle and a wedge applied in the manner hereinafter described to the hoop itself and to the flat part of the lug and the hoop itself, all in the manner hereinafter described as constituting my  
30 invention.

Upon the annexed drawings, Figure 1 is a front elevation of a tank made of staves of wood or other material and on a comparatively  
35 small scale, showing my said invention applied to a tank for holding water or other liquid or other material. Fig. 2 is a horizontal section of part of the said tank on a larger scale and showing in plan, but partly in section, the apparatus for being connected to one  
40 of the hoops of the said tank. Fig. 3 is a front elevation upon the same scale as Fig. 2 looking toward the face of a hoop with my connecting apparatus applied thereto. Fig.  
45 4 is a side elevation of one of the lugs detached from the rest of the apparatus. Fig. 5 is a plan of one of the lugs corresponding to Fig. 4. Fig. 6 is a plan of my hoop-tightening device as designed for being applied to  
50 a broader hoop than that shown in Figs. 2 and 3. Fig. 7 is a detail of one of the tightening-screws of my apparatus shown at Figs. 2, 3,

6, 7, and 12. Fig. 8 is a plan of the wedge which is used to fill the space between the flat portion of one of the lugs and the hoop. 55  
Fig. 9 is a side elevation of the said wedge. Fig. 10 is an end elevation of one of the boxes or buckles inclosing the flat portion of one of the lugs and any flat portion of the hoop. Fig. 11 is a vertical section of this box or 60  
buckle on the line *b b*, Fig. 10. Fig. 12 is a general view of part of my apparatus as shown applied to one end of the hoop for fastening or tightening the joints of the tank together and showing the box or buckle, the wedge, 65  
the flat part of the lug, and the hoop itself each in the non-tightened condition. Figs. 13 and 14 are respectively an end and side elevation of the nuts forming part of my device. 70

In Figs. 2, 3, 4, and 5 my apparatus is shown drawn to such a size that the details of construction of its several parts are easily intelligible. The circular portion (marked A A) represents the horizontal view of a portion 75  
of a circular tank whose staves or divisions are held together by tension applied to the hoops B B, and upon the ends of the hoops B B there are placed the boxes or buckles G G, within which there are also slipped 80  
the outer flat end of each lug C C, as shown upon the annexed drawings, so that the opposite ends of the lugs C C when at each end of the hoop B B face each other in opposite directions, and when the screws E E, with 85  
the nuts thereon, (marked F F,) are placed in the recesses J J at the upper ends of the lugs C C by rotating the screw E E, which is formed with right and left hand screw-threads, as shown, the parts are drawn to- 90  
gether, so that the several parts become fastened to the ends of the hoops B B by the tightening of the wedge K K in the space between the box or buckle G and the flat portion of the hoop in the manner more espe- 95  
cially shown at Figs. 2 and 12. When the parts are so connected rigidly together, (but shown as loosely associated at the right-hand end of Fig. 12,) the short upturned nose I at the flat end of each lug C C, as the parts 100  
are drawn together by the action of the screws E E, pulls or forces the wedges K K into their several operative positions. By tightening the lug and screwing the device herein de-



scribed to any required degree of external adjustable tension such external pressure may be applied to the staves or divisions of the tank, whereby the said staves or divisions  
5 of the tank are closely held together and whereby any undue strain is prevented from taking place upon the screw-bolts or nuts or upon the hoops, which frequently causes fracture and destruction of some of the operative  
10 parts of the devices used for tightening the staves or divisions of tanks, vats, and other receptacles now actually in use and which injury or destruction is prevented by means of my present invention.

15 With reference to the second sheet of drawings it needs only to be stated that Figs. 6 and 12 thereof show my apparatus applied in duplicate to a hoop of greater breadth than is shown on Sheet 1 of the drawings, while  
20 Figs. 7, 8, 9, 10, 11, 12, 13, and 14 show in separate detail the several parts used in my invention hereinbefore described.

Having now described the nature of my said invention and the best system, mode, or man-  
25 ner I am at present acquainted with for carrying the same into practical effect, I desire to observe in conclusion that what I consider

to be novel and original, and therefore claim as the invention to be secured to me by Letters Patent, is as follows:

The device for tightening and loosening the hoops of tanks, vats or analogous vessels, consisting of the combination of a hoop or band, movable, adjustable and fixable lugs, the buckles, and the lugs, respectively carried  
35 upon each end of said hoop or band, the wedges in the buckles, the lugs being formed at their lower ends with an upturned nose to press the wedge within each box or buckle relatively with the lugs, the tightening screws  
40 and nuts, the upper ends of the lugs being formed as upraised receptacles for the nuts and tightening-screws, all operating together in the manner and for the purposes substantially as set forth.

45 In testimony whereof I, the said CLARENCE LYMAN PARKER, have hereunto set my hand and seal, this 25th day of May, 1901, in the presence of two subscribing witnesses.

CLARENCE LYMAN PARKER. [L. s.]

Witnesses:

ST. JOHN DAY,  
BEATRICE WILKINS.