

No. 697,364.

Patented Apr. 8, 1902.

J. REICHERT.
TANK LUG.

(Application filed Jan. 8, 1902.)

No Model.)

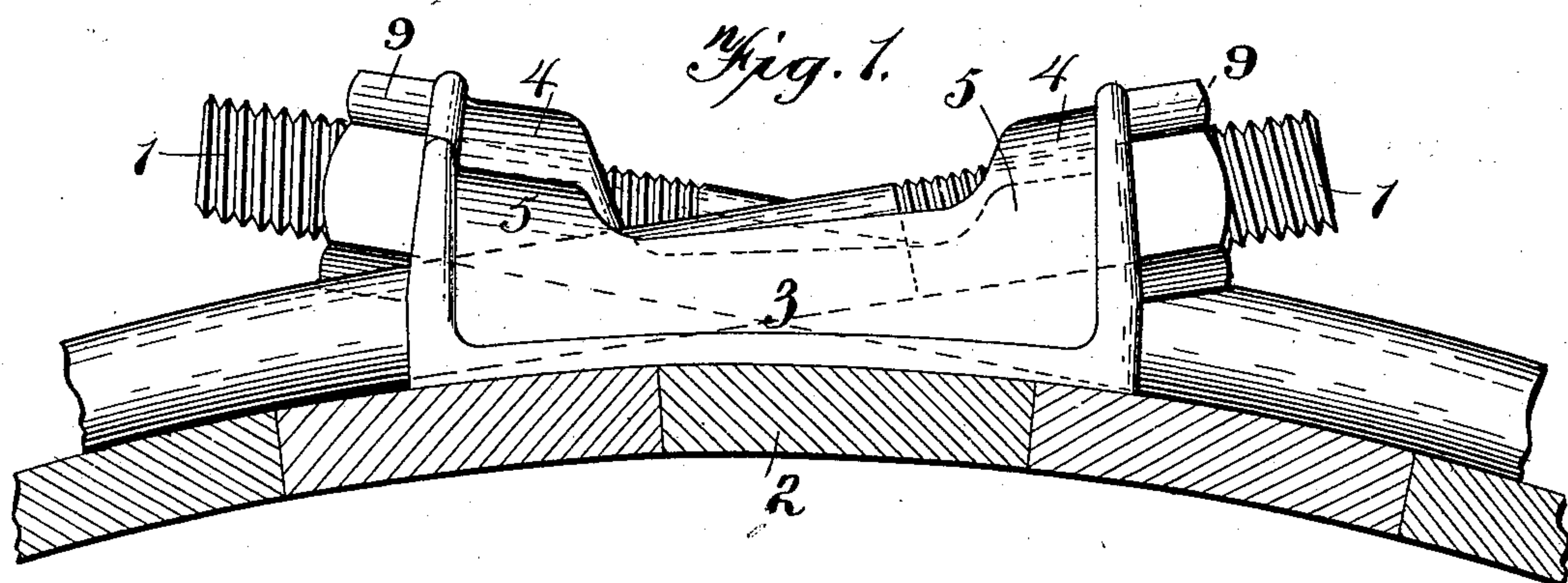


Fig. 2.

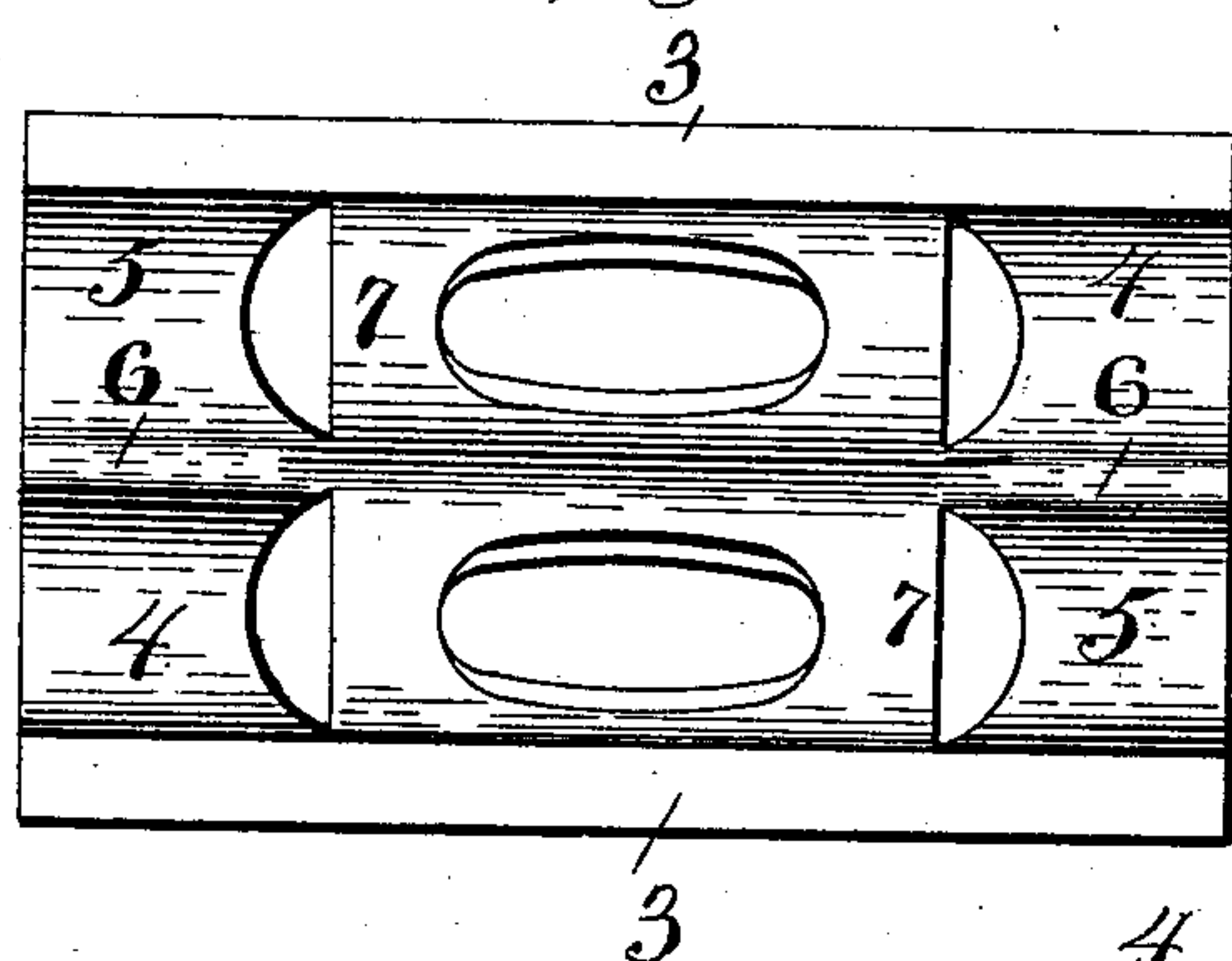


Fig. 3.

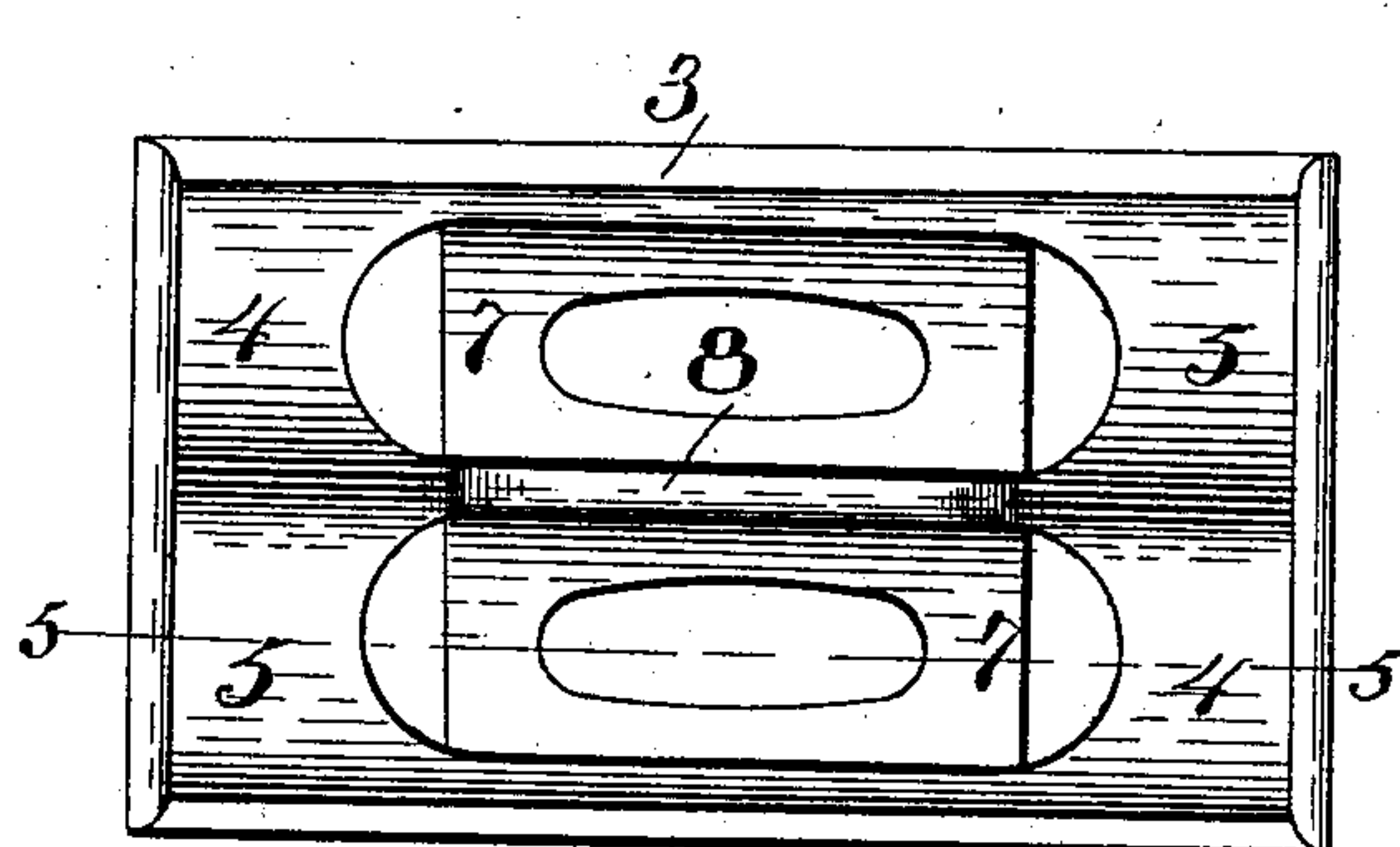


Fig. 4.

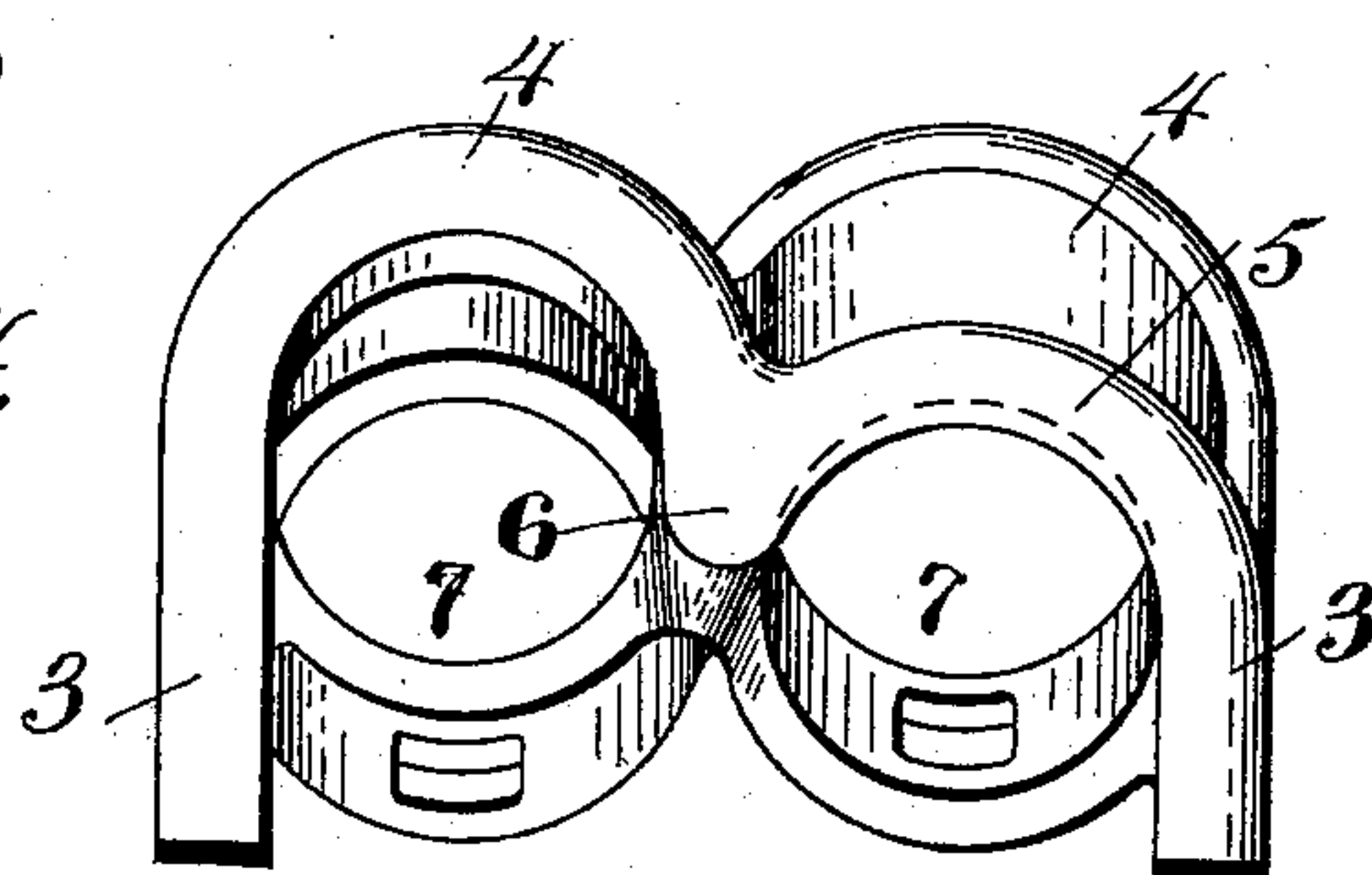
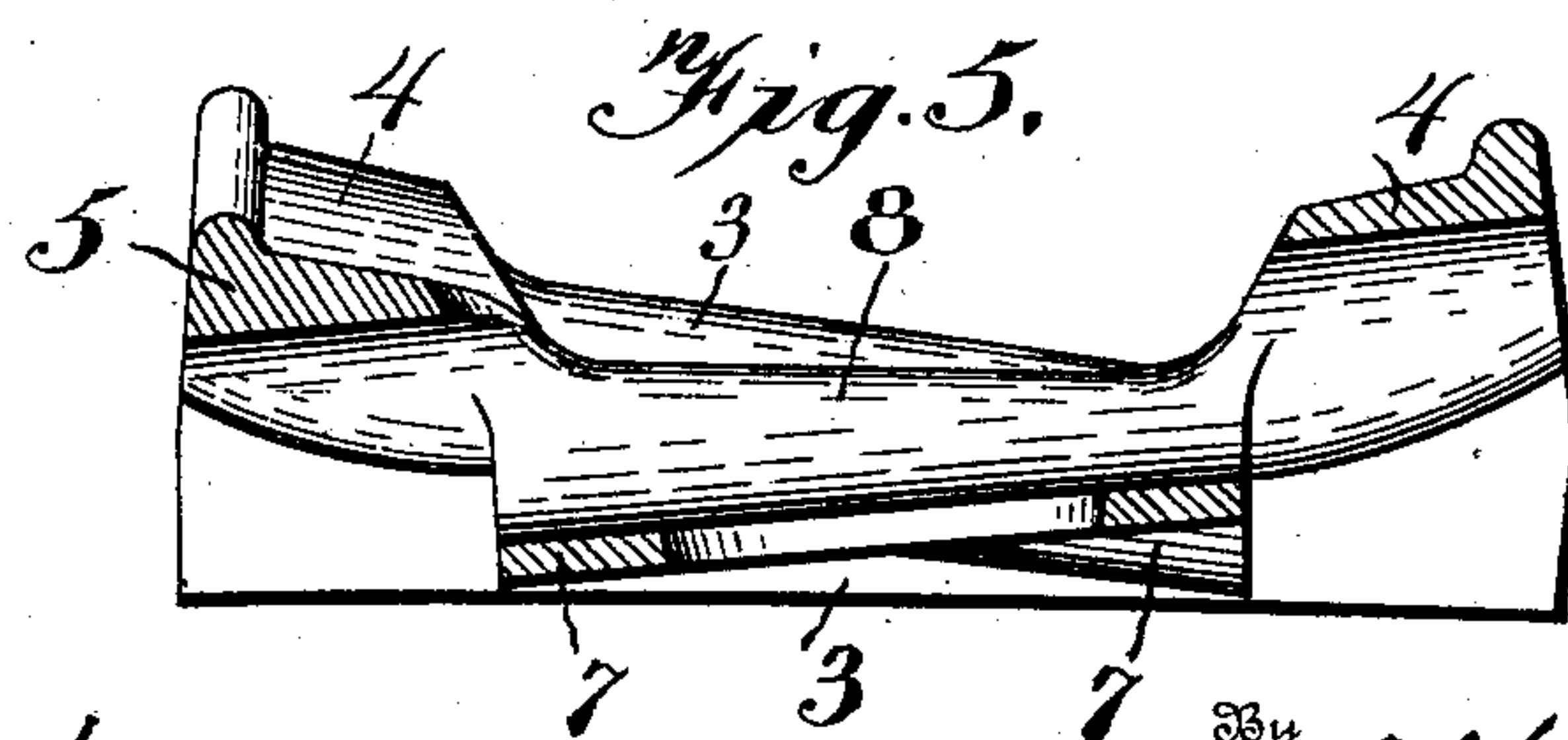


Fig. 5.



Witnesses

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JOHN REICHERT, OF RACINE, WISCONSIN.

TANK-LUG.

SPECIFICATION forming part of Letters Patent No. 697,364, dated April 8, 1902.

Application filed January 8, 1902. Serial No. 88,924. (No model.)

To all whom it may concern:

Be it known that I, JOHN REICHERT, a citizen of the United States, residing at Racine, county of Racine, State of Wisconsin, have
5 invented certain new and useful Improvements in Tank-Lugs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable
10 others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in tank or coupling lugs, and more particularly relates to couplings or tighteners for
15 hoops, bands, or rods for various purposes, such as tanks, casks, kilns or ovens, iron or other truss work, &c.

An object of the invention is to provide an improved tank-lug particularly adapted to receive and couple together round hoops, bars
20 or bands, or hoops or bands having round screw-threaded ends and which shall be so peculiarly formed as to be capable of production by casting, drop-forging, or otherwise in a single piece of metal without coring and at
25 a minimum expense, producing a tank-lug of maximum strength at a minimum expenditure of metal in its formation and which shall be so formed as to permit free access to the hoop ends and properly hold and support the
30 hoop ends and set close to the surface of the tank or other article and reduce to a minimum the length of the hoop or band lifted or held away from the exterior surface of the said tank or other device encircled by the hoop.

35 With these and other objects in view my invention consists in certain novel features in construction and in arrangements and formation of parts and details, as hereinafter more fully and particularly set forth and
40 specified.

Referring to the accompanying drawings, which show for purposes of illustration and explanation an example of one from among
45 other constructions within the spirit and scope of my invention, Figure 1 is a sectional plan showing part of a wooden tank in section and the tank-lug and hoop or band ends in top plan, dotted lines indicating parts hidden in the lug. Fig. 2 is a bottom plan of the lug.
50 Fig. 3 is a top plan. Fig. 4 is an end view. Fig. 5 is a longitudinal section, somewhat

enlarged, taken in the plane of the line 5 5, Fig. 3.

The lug is formed of one piece of metal, usually a single casting formed to longitudi- 55
nally receive the opposite threaded ends 1 1 of the metal band or hoop encircling the wooden tank or cask 2 or other body. The lug is, in effect, formed with two longitudinal open side passages or channels therethrough, 60
said passages being inclined longitudinally in opposite directions—that is, from one end of the lug one passage will incline upwardly and the other passage will incline downwardly, although the passages are arranged 65
closely together and side by side.

The lug is formed with the parallel longitudinal side walls or webs 3 3, the inner longitudinal edges of which form the bearing-surface of the lug which seats against the 70
tank or other surface. The end portions of these side walls are bridged and connected only by the two double outwardly-deflected or bulged arches or bridge-pieces, each said comparatively narrow bridge-piece composed 75
of the high abutment-arch 4, the low entrance-arch 5, and the depending flange or edge 6 between the inner portions of the arches 4 5.

The two bridge-pieces at opposite ends of the lugs are reversely arranged, so that the 80
arch 4 at one end is opposite the arch 5 at the opposite end of the lug. The lug is entirely open between the end portions of the side walls and beneath said end bridge-pieces.

The intermediate portions of the side walls 85
between said two end bridge-pieces are connected by a web longitudinally depressed to form the two longitudinal seats or supports 7 7, separated by the central longitudinal elevated or raised rib or flange 8, which at its 90
opposite ends connects with or merges into the inner central or intermediate flanges 6 6 of the end bridge-pieces. Each longitudinally-depressed seat 7 extends and is inclined upwardly and longitudinally from a 95
low entrance-arch 5 to the opposite high abutment-arch 4. Hence one seat 7 is longitudinally inclined oppositely to the other seat 7. The lug is entirely open above the seats 7 7. The lower end of each seat 7 is located close 100
to the surface of the tank when the lug is applied, and the arrangement is such that the

extremities of the seats 7 7 are between the transverse planes including the two bridge-pieces—that is, the seats 7 7 do not extend under said bridge-pieces. It will hence be
 5 observed that a lug possessing great strength and durability for the purposes intended can be most easily and economically cast in one piece without the necessity of employing cores. It is also obvious that the seats 7 7
 10 can be formed by one or more transverse webs or pieces between the side walls of the lug.
 In applying the lug the band or hoop is passed around the tank or other body, and one of its threaded ends is passed in under
 15 an entrance-arch and over the seat 7, corresponding thereto, and out under the high abutment-arch, while the opposite threaded end of the hoop is passed in the opposite end of the lug and under the other lugs 4 and 5
 20 and over the other seat 7. The nuts 9 9 are then screwed onto the ends of the hoop and against the outer faces of the two high abutment-arches to tighten up the hoop or band to the desired degree. The fact that the lug
 25 is open under the end bridge-pieces and above the intermediate web-forming seats 7 7 facilitates the proper assembling of the hoop ends and lug and avoids the necessity of drilling and the use of keys, while the fact that
 30 the lug is open under the end bridge-pieces permits the hoop to rest close against the tank-surface approximately until it is deflected outwardly at a very slight angle at the lower end of seat 7. In other words, the
 35 hoop throughout its length can rest against the tank-surface, except at points between the side walls of the lug where the hoop ends pass onto the lower ends of the seats 7 7, while the lower edges of the side walls of the lug
 40 bear throughout their lengths tightly against the tank-surface when the coupling is tightened. Each hoop and its lug thus form a continuous bearing around the tank as the lug edges bear against that portion of the sur-
 45 face of the tank not engaged by the hoop. Hence the hoops or bands can be arranged on a tank or other body with the coupling-lugs one directly above the other or in a vertical line, which constitutes a feature of material
 50 practical advantage. Also as the lug is open at the top between the narrow end bridge-pieces the threaded ends of the hoop are exposed for inspection, so that the extent of the thread can be readily seen and so that the
 55 threaded portions of the hoops and the lug can be provided with a protective coating of paint.

Advantages are attained by providing the extended bearing-surfaces of the lug against
 60 the tank, preferably on the parallel lines extended beyond the ends of the seats 7 7, and also advantages are attained by bringing the seats 7 7 down to or approximately to the surface of the tank and raising the hoop ends
 65 at the smallest possible angle and the short-

est possible distance from the tank-surface. The hoop ends are upheld at the proper angle by the web-forming seats 7 7, while the side walls hold the lug in the proper position longitudinally of the hoop ends and the arches
 70 hold the hoop ends in against the seats 7 7 and form the abutments for the tightening-nuts, and the end bridge-pieces are strengthened and braced by the longitudinal central rib 8.

This lug might be used to advantage on various coke and pottery ovens or kilns and conduits and for connecting metal rods or bands in ironwork construction and for other
 80 purposes.

It is evident that modifications and variations might be resorted to without departing from the spirit and scope of my invention, and

Having thus fully described my invention, what I claim as new, and desire to secure by
 85 Letters Patent of the United States, is—

1. The coupling-lug formed in one piece and composed essentially of the two side walls forming the two elongated bearing edges and connected at the ends by the two out-
 90 wardly-deflected bridge-pieces, and between said bridge-pieces connected by the transverse inwardly-deflected web, each bridge-piece forming a high arch and a low arch, and said web forming two depressed inclined
 95 seats, having their lower edges located between the side walls and close to the tank-surface, when the lug is applied, the lug open below said bridge-pieces and above said web, substantially as described.

2. The coupling-lug formed in one piece and composed of the two side walls, the inner longitudinal edges of which form the bearing-surface of the lug against the tank-surface, the two end bridge-pieces between said walls,
 105 each bridge-piece composed of a low entrance-arch and a high abutment-arch with the intervening flange, and the transverse web between said walls forming two oppositely-inclined
 110 seats and the intervening longitudinal rib at its ends connecting said flanges of said bridge-pieces, said lug open below the bridge-pieces and above said web, substantially as described.

3. The coupling-lug composed of the side
 115 walls having the elongated inner bearing-surfaces, said walls connected at their ends by the outwardly-arched bridge-pieces and between said bridge-pieces connected by the inwardly-deflected web having the low or de-
 120 pressed ends, said lug open below the bridge-pieces and above the web, substantially as described.

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

JOHN REICHERT.

Witnesses:

LEONARD SCHLEGEL, Jr.,
 L. SCHLEGEL.