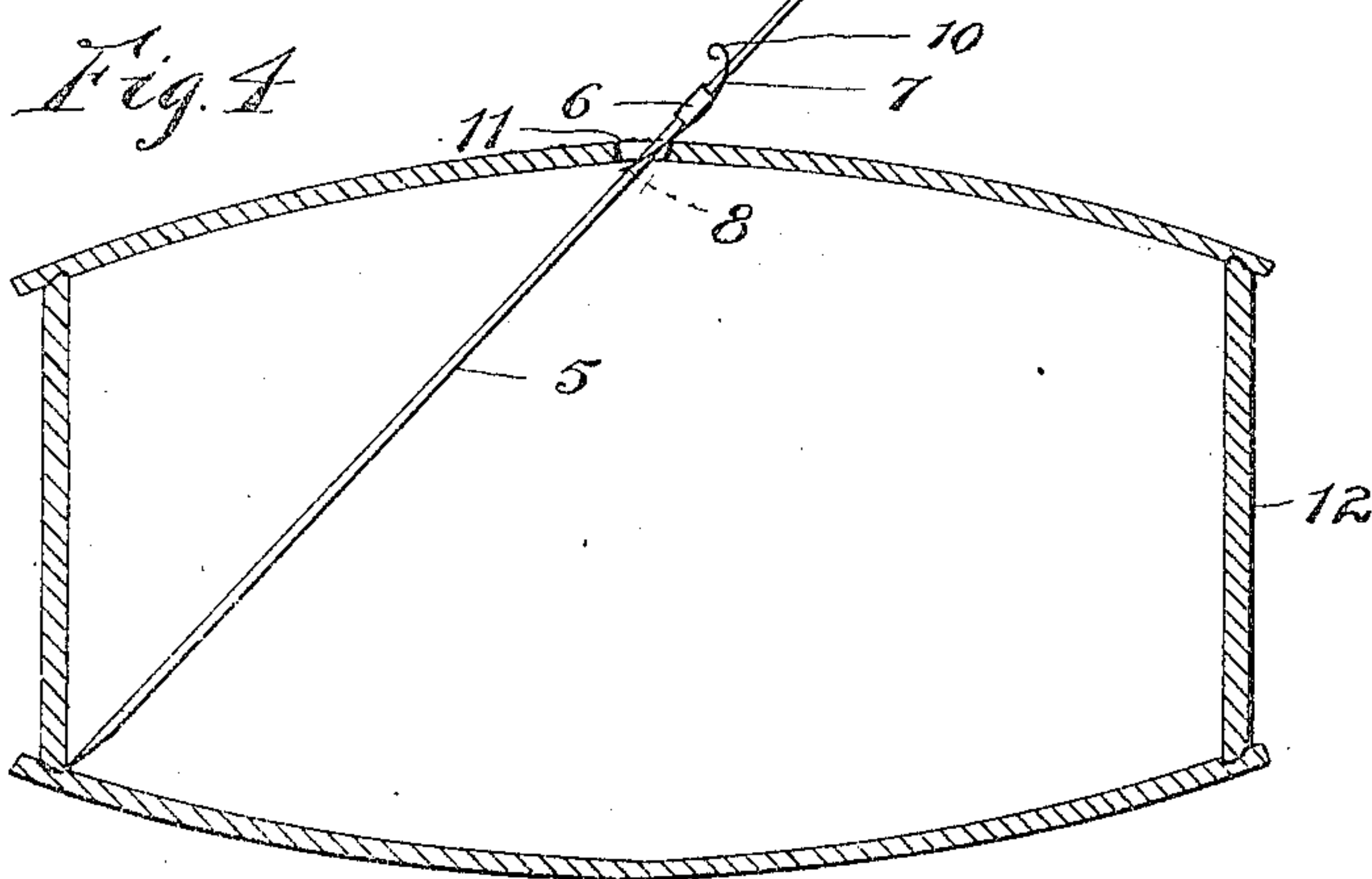
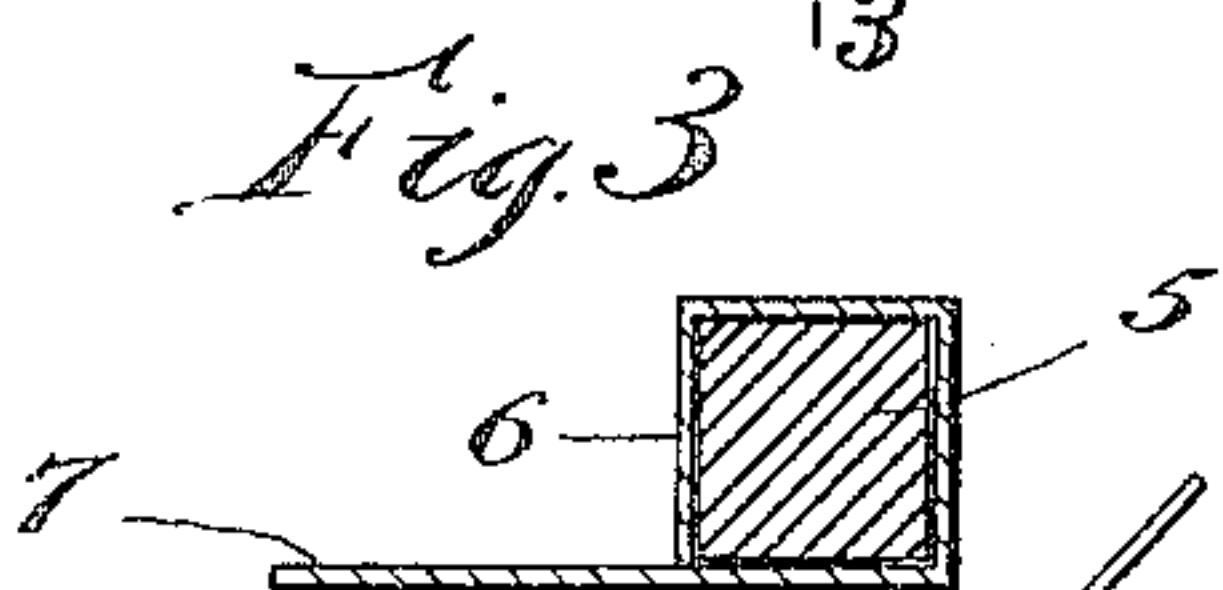
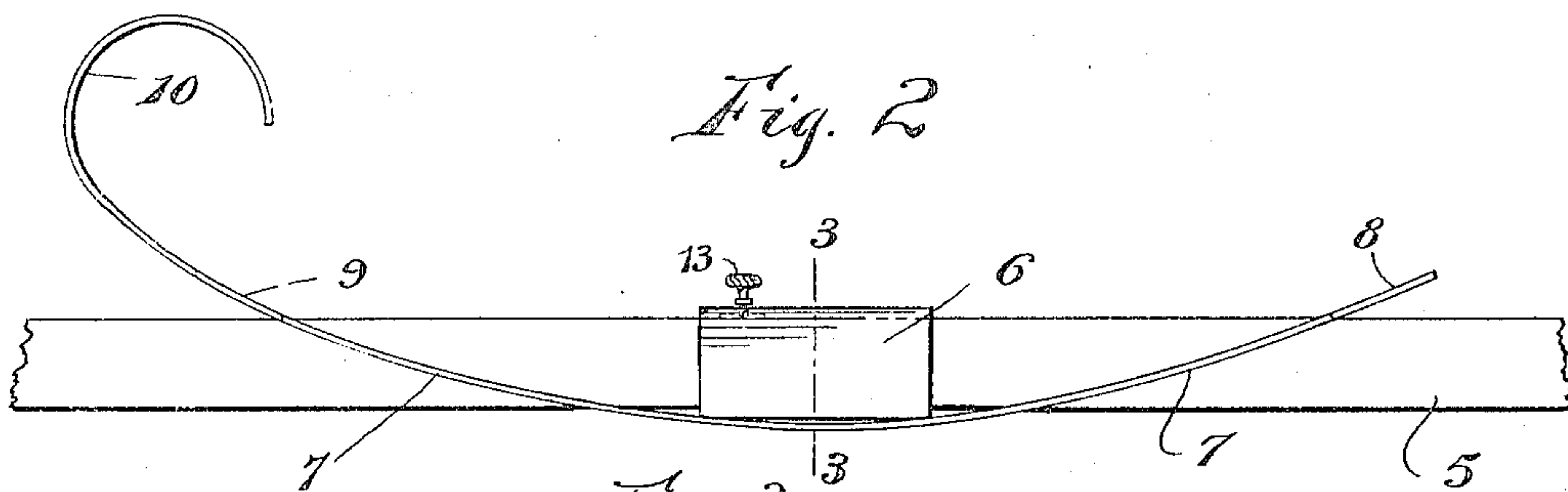
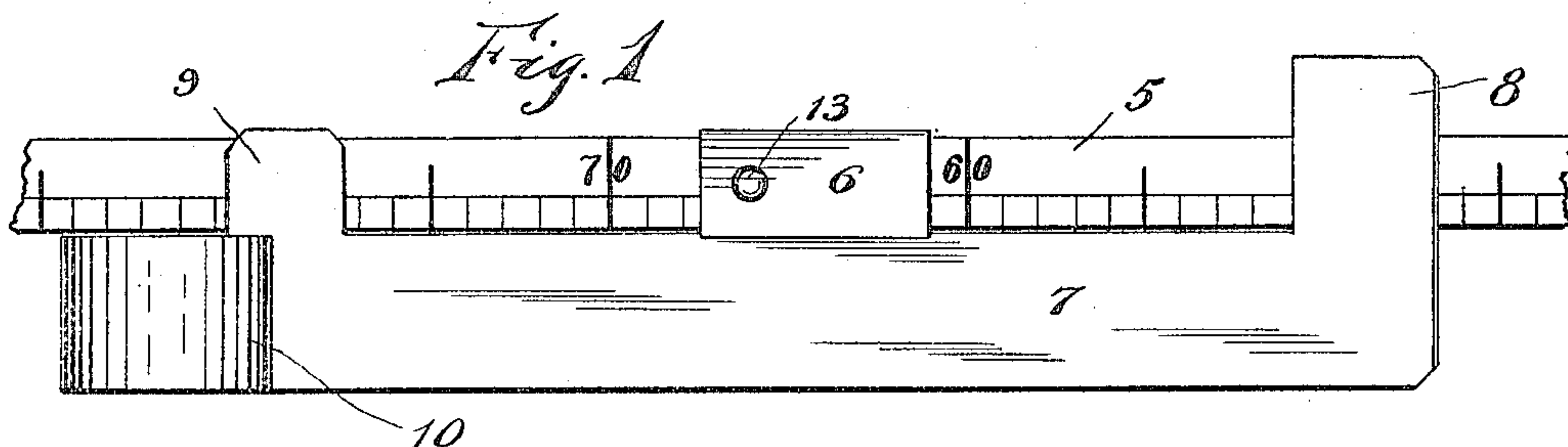


No. 812,411.

PATENTED FEB. 13, 1906.

G. P. DOERN.
GAGE READING DEVICE.
APPLICATION FILED NOV. 21, 1904.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE P. DOERN, OF CHICAGO, ILLINOIS.

GAGE-READING DEVICE.

No. 812,411.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed November 21, 1904. Serial No. 233,684.

To all whom it may concern:

Be it known that I, GEORGE P. DOERN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Gage-Reading Devices, of which the following is a full and complete specification.

This invention relates more particularly to a device which is adapted to be used with ullage-rods or similar rods for determining the capacity of casks or barrels, but is also adapted to be used with gage-rods for other purposes, and I do not wish to limit myself to the particular use set forth herein.

In determining the capacity of casks or barrels with an ordinary gage-rod the gager must estimate or guess at the point for reading the rod, which should correspond with the central or medial line of the bung-hole at its intersection with the inner surface of the barrel-stave at this point. I am aware that heretofore attempts have been made to produce devices for accurately determining this line; but such devices have either been impractical or defective for various reasons.

The objects of the present invention are to provide a simple and efficient device whereby the gager may readily determine the exact point at which the rod should be read and may read the rod or gage while it is in position in the barrel or may remove the rod without disturbing the gage reading or marking device, so that the measurement may be taken off after the rod has been removed.

This invention is illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of a portion of a gage-rod with my improved reading device in position. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view on the line 3-3 of Fig. 2; and Fig. 4 is a sectional view of a barrel, showing the gage-rod and the reading device in operative or reading position.

As shown in the drawings, 5 represents a gage-rod which may be graduated with standard or other preferred graduations suitable for the desired purpose. The reading device comprises a sleeve or ferrule 6, which is adapted to slide freely over the rod 5 and carries or is integrally formed with a strip 7 of resilient or spring material. This strip is secured to the sleeve 6 on the lower side or the side opposite to that upon which the divisions of the rod are shown and is bent up at either end. One end terminates in a lateral hook 8, which

rests upon the upper edge of the gage-rod and extends a short distance beyond the same. At a somewhat shorter distance in the opposite direction the spring 7 is provided with a lateral extension or offset 9, which also engages with the upper side of the rod 5. The spring 7 is then continued for a short distance and terminates in a suitable hook or ring 10 for the finger of the operator. A set-screw 13 or equivalent device may be used for rigidly locking the reading device to the rod.

The proportion of the device is such that there is a sufficient distance between the sleeve 6 and the hook 8 to allow for the thickness of the barrel-staves and for the ready reading of the gage, and the distance between the sleeve and the offset or lug 9 is such that when the spring is allowed to press normally against the rod it will hold the device securely in any desired position.

The rod and reading device are used in the following manner, which will be readily understood in connection with Fig. 4: The rod is inserted diagonally through the bung-hole 11 of the barrel 12 until the lower end reaches the opposite lower corner, and the reading device is slid down until the hook 8 extends into the barrel, the upper end of the spring preferably being raised to disengage the extension or catch 9 from the rod. The device is then drawn up until the hook 8 comes in contact with the lower side of the barrel-stave at the center of the bung-hole 11. The gage is then read and the rod inserted diagonally in the opposite direction to obtain the second reading in the usual manner. However, if the gager desires after the hook has been brought into engagement with the stave or inner side of the barrel at the center of the bung-hole he may release the outer end, so that the catch 9 will lock the device, and by slight side movement the hook 8 is released and the rod then drawn from the barrel for reading.

I am aware that various details will readily suggest themselves as coming within the scope of this invention, and I do not wish to limit myself to the exact construction herein shown and described; but

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a gage-rod, of a reading device adjustably secured to said rod and having a lateral hook or the like for engagement with the inner side of the barrel at the center of the bung-hole transversely to

the length of the barrel when said rod is inserted diagonally in a barrel or cask.

2. The combination with a gage-rod having a scale thereon, of a gage-reading device adjustably secured to said rod, said reading device having a lateral hook or the like extending across the side of said rod having the scale thereon and adapted to engage with the inner side of the barrel at the center of the bung-hole.

3. A gage-reading device comprising a sleeve or ferrule adapted to engage with a rod, a spring-strip connected with said sleeve, a lateral hook at one end of said spring-strip, a lateral catch or extension from said spring on the opposite side of said sleeve from said hook, and a ring or the like at the end of said spring for engagement with the finger.

4. A gage-reading device comprising a sleeve adapted to slidably engage with a gage-rod, a spring-strip secured to one side of said sleeve and having one end bent up and terminating in a lateral hook, said hook being adapted to engage with the upper edge of the rod and also with the inner side of the barrel

to be gaged, the other end of said spring being provided with an extension or catch also adapted to engage with the upper edge of the rod, the end of said spring being bent for engagement with the finger.

5. In a gage-reading device for casks or barrels, the combination with a gage-rod, of a lateral scale-reading member adapted to engage laterally with the inner surface of a barrel at the center of the bung-hole when the rod is inserted in diagonal position, and means for adjustably securing said reading member on said rod, the arrangement being such that the gage-rod may be accurately read while it is inserted in the barrel, or the rod may be removed for reading without disturbing the gage-reading member.

6. A gage-reading device comprising a strip of suitable resilient material having a hook thereon, and means for adjustably securing said strip to a gage-rod.

GEORGE P. DOERN.

Witnesses:

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