

(No Model.)

W. A. RIGGS, Jr.  
CISTERN CLAMP FASTENER.

No. 381,282.

Patented Apr. 17, 1888.

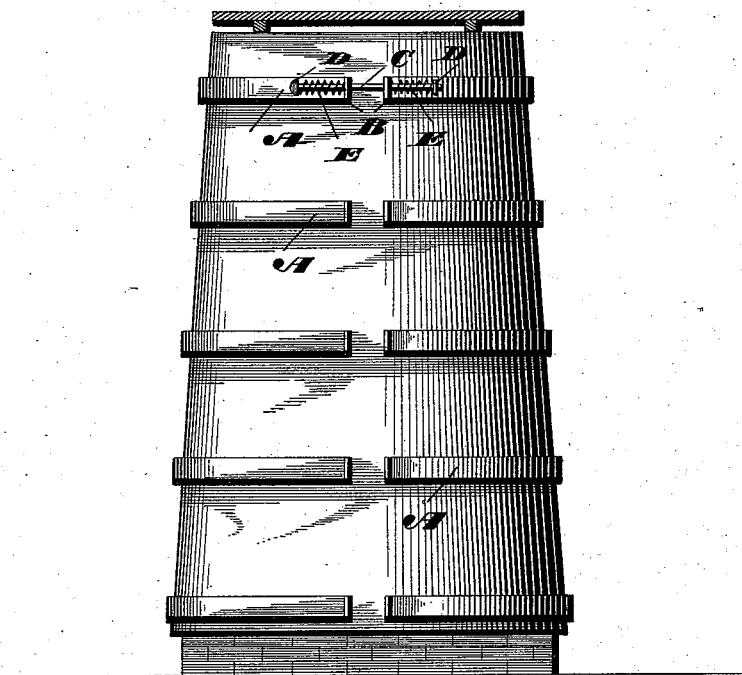


Fig. 1.

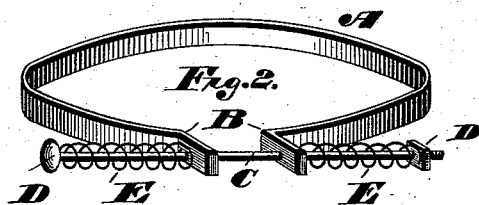


Fig. 2.

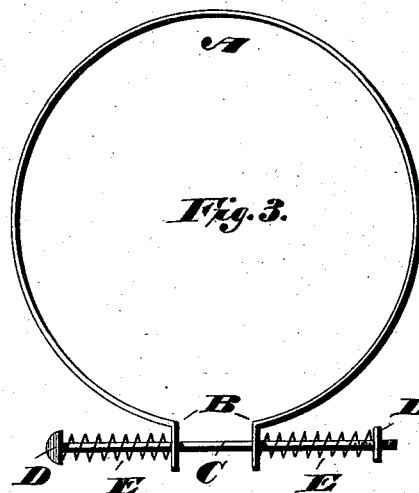


Fig. 3.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILLIAM ADDISON RIGGS, JR., OF NEW ORLEANS, LOUISIANA.

## CISTERN-CLAMP FASTENER.

SPECIFICATION forming part of Letters Patent No. 381,282, dated April 17, 1888.

Application filed October 6, 1887. Serial No. 251,603. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM ADDISON RIGGS, Jr., a citizen of the United States of America, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in a Cistern-Clamp Fastener, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in a cistern-clamp fastener, in which a bolt and spring are made to operate in conjunction with a hoop; and the objects of my improvements are to provide a device for hoops of a cistern that will yield when under a heavy or light pressure, and avoid the necessity of driving the hoops. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a cistern with my improvements applied. Fig. 2 is a perspective view of a hoop removed from the cistern with my improved fastener thereon, and Fig. 3 is a plan view of the hoop and its fastener.

Similar letters refer to similar parts throughout the several views.

A is a hoop of the cistern. B is a clamp formed on the ends of the hoop. C is a bolt. D are the heads or nuts on the bolt. E are the springs on the bolt.

In constructing my device I use an ordinary

metal bolt, either with threads on one or both ends of the same, and between the heads D and the flanges or clamps B on the bolt C, I place springs, as shown at E. When hoops are prepared, the ends of same are made in the shape of a clamp or flange with an opening of sufficient size to admit the bolt C, which is passed through the same, the springs E being placed in position and being held secure by the heads D. I prefer adjusting the hoops A as shown in Fig. 1, from the fact that the contents of cisterns are more or less changed by a reduction in volume at this particular locality, and the shrinkage or expansion is greater than at the lower portion of the cistern. To obviate this expansion or contraction the spring E expands or contracts when pressure is placed upon the hoop.

I am aware that clamps have been used on cistern-hoops with bolts on the same, but I do not claim such an invention; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

The combination of the hoop A, having perforated flanges B, a bolt, C, having heads D, and springs E, substantially as set forth.

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

WILLIAM ADDISON RIGGS, JR.

Witnesses:

GEORGE J. YENEWINE,  
MICHAEL KIERNAN.