

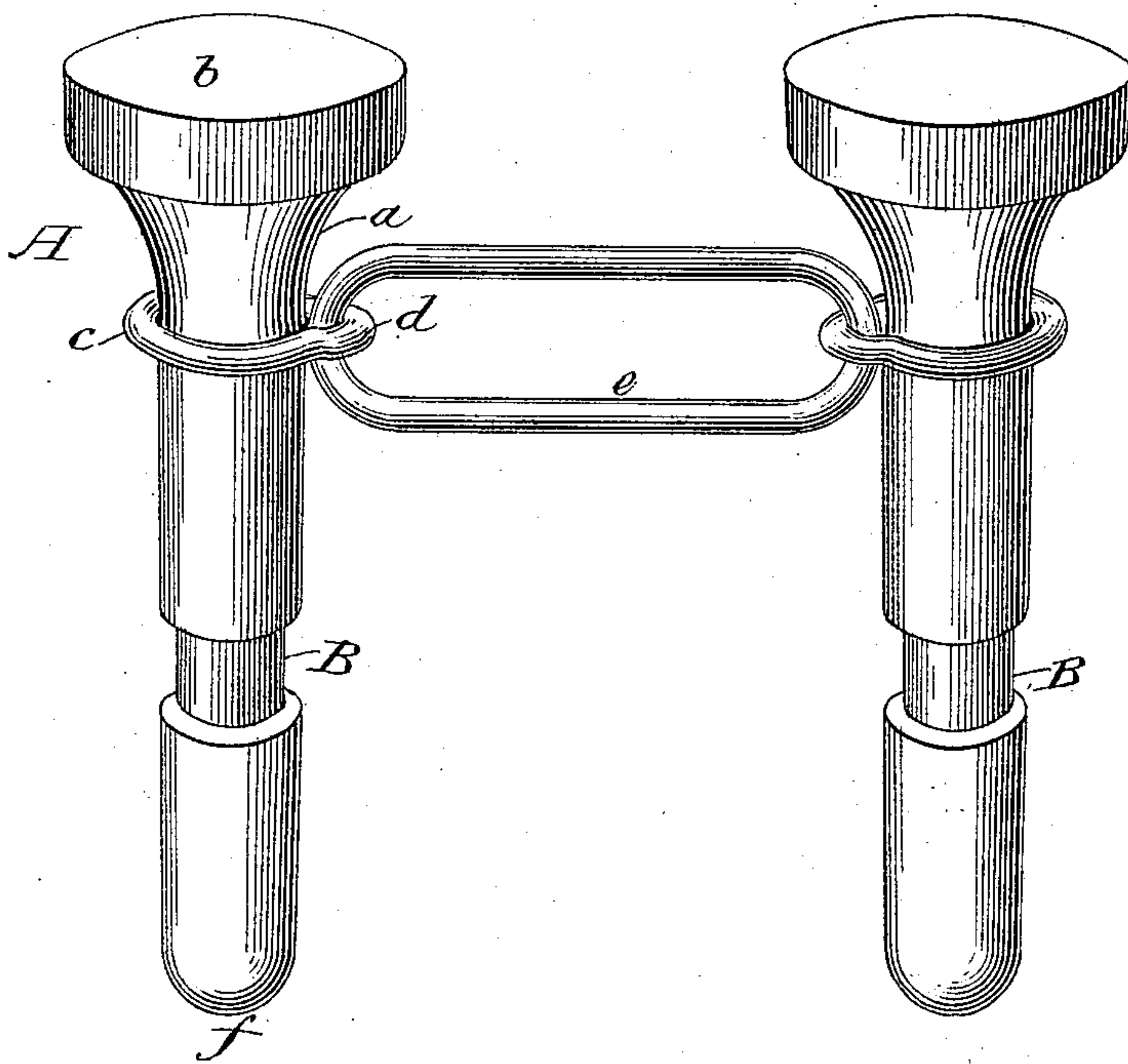
(No Model.)

T. IRVINE.

PLUG FOR RAFTS AND BOOMS.

No. 336,920.

Patented Mar. 2, 1886.



Witnesses:

Frank J. Blanchard
W. W. Elliott

Inventor:

Thomas Irvine

By Jno. G. Elliott
Attorney.

UNITED STATES PATENT OFFICE.

THOMAS IRVINE, OF BEEF SLOUGH, WISCONSIN.

PLUG FOR RAFTS AND BOOMS.

SPECIFICATION forming part of Letters Patent No. 336,920, dated March 2, 1886.

Application filed August 30, 1884. Serial No. 141,811. (No model.)

To all whom it may concern:

Be it known that I, THOMAS IRVINE, a citizen of the United States, residing in Beef Slough, in the county of Buffalo and State of Wisconsin, have invented certain new and useful Improvements in Plugs for Rafts and Booms, of which the following is a specification.

This invention relates to improvements in plugs for rafts and booms, for which Letters Patent No. 268,681 were granted me December 5, 1882, and has for its object to prevent the accidental removal of the plug after having once been secured in its operative position. I attain this object by devices illustrated in the accompanying drawing, in which is shown a perspective of two plugs embodying my invention and connected together by the usual chain or link, for the purpose of preventing the logs from spreading apart or from having an undue longitudinal movement relative to each other.

Similar letters of reference indicate the same parts in the drawing.

A A represent plugs of identically the same construction and composed of wood, which may be easily turned to the desired form, and recommends itself not only for economy, but because of its being susceptible of swelling and tightening the plug in the log; but, if desired, these plugs may be constructed of metal or any other suitable material. These plugs are provided with a curved shoulder, *a*, and may be provided with a head, *b*, for convenience in driving them. The shoulder *a* is principally formed thereon for the purpose of permitting the ring *c* to be wedged and hence tightened thereon, said ring being provided with a projection, *d*, in which is secured one or more links, *e*, as the occasion or the diameter of the logs may require. The plugs are preferably rounded or pointed at their lower ends, *f*, for convenience in inserting them into holes bored into the logs in which they are driven to their operative position by a mallet or other suitable device. In any case, however, the plugs should be of somewhat greater diameter than the auger-hole, so as to require driving to seat them in their place.

It is well known that the rafts in which wooden plugs are employed are floated upon swift-

running streams, thereby subjecting the plugs to strains, which tend to pull them out, and heretofore these plugs have been made with a regular cylindrical surface, which rather facilitates their removal.

In order to effectually prevent an accidental detachment or removal of the plugs, they are provided a short distance above their ends or at any suitable point between their extremities with an annular groove, *B*, preferably of the form shown, but may be of any other form which will permit the swelling of the log to occupy the groove, and thus form a lock between the log and the plug.

While the form of groove shown is preferred for the purpose intended, it is obvious that any marked depression or depressions in the surface of the plug would afford the same result, and my invention is, therefore, not limited to the form of depression shown and hereinbefore specifically described; and in this connection it may be said that instead of a depression the plug may be provided with one or more projections or shortened ribs, which, after the plug is driven to place, would attain the same result, for the reason that the swelling of the log would close it around said projections or ribs and form a lock of substantially the same effect as a depression in the plug.

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

1. A raft or boom plug composed of wood, and provided at a point between its extremities with an annular groove, whereby the log swelling into said groove will lock the plug therein, substantially as described.

2. A raft or boom plug having a shoulder, *a*, and provided at a point between its extremities with one or more depressions in its periphery, for the purpose described, in combination with a link or chain connecting two or more of said plugs, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand.

THOS. IRVINE.

Witnesses:

C. W. SOPER,
JESUP W. SCOTT.