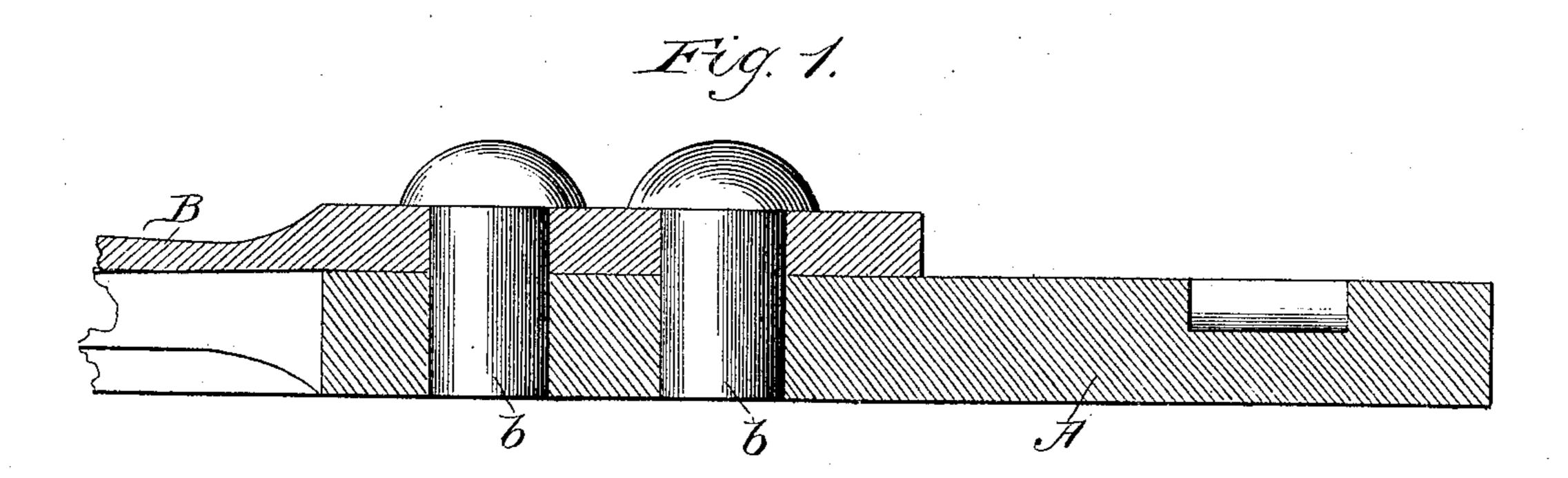
(No Model.)

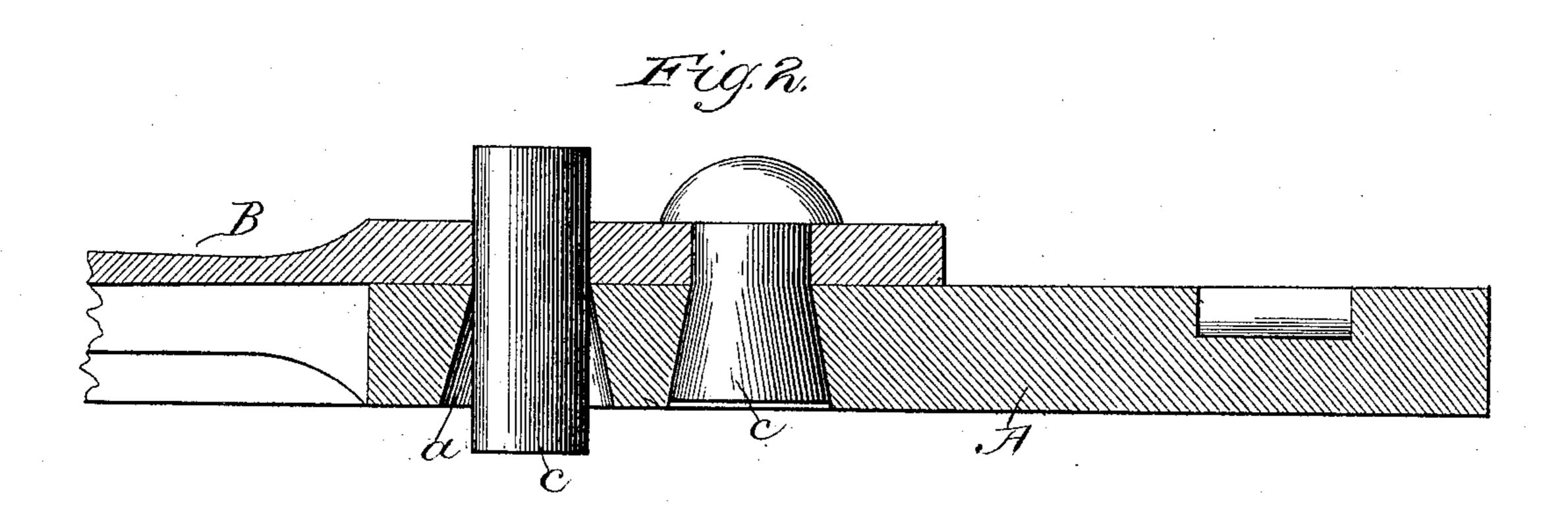
## A. NEWELL.

REED FOR ORGANS.

No. 322,469.

Patented July 21, 1885.





Witneses. Will R. Grushundro. W. D. Reyser

Inventor Augustus Newell By, Mm Ho Lotz Atty

## United States Patent Office.

AUGUSTUS NEWELL, OF CHICAGO, ILLINOIS.

## REED FOR ORGANS.

SPECIFICATION forming part of Letters Patent No. 322,469, dated July 21, 1885.

Application filed April 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, Augustus Newell, a citizen of the United States of America, residing at Chicago, in the county of Cook and 5 State of Illinois, have invented certain new and useful Improvements in Reeds for Organs, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in reeds for reed-organs and like instruments. The object of the invention is to provide a more perfect joint or connection between the reed-frame and the reed-tongue. Heretofore it has been customary to form one or more openings through the reed-frame, through

which suitable wire pins are passed for holding the tongue and reed-frame together, said openings being of the same size throughout, and a rivet head formed upon one end of each wire pin, and the openings through the reed-frame being of such a size that the pins would fit spurily therein. It has been found however

snugly therein. It has been found, however, that reeds thus constructed are liable to disarrangement of the tongue, and to avoid such difficulty my invention consists in providing tapering openings through the reed-frame, and in forming a head upon both ends of each pin, as will be described and claimed.

Reference will be made to the accompanying drawings, in which Figure 1 represents a longitudinal section of a reed constructed in the well-known way; Fig. 2, a similar view of a reed provided with my invention.

A represents a reed-frame, which in general construction is similar to those now in common use, and B the reed-tongue. Through frame A openings a are formed, said openings being tapering, as shown. As shown in Fig. 1, the pins b for holding the tongue to the reed-frame

consist of a straight piece of wire with a rivethead formed on one end thereof, the manufacturers depending entirely upon such rivethead and the tight fit of the wire for holding 45 the parts together. In my improved arrangement a straight wire, c, is inserted into each tapering opening a. When in the position shown in Fig. 2, suitable mechanism is employed to form a rivet-head upon one end of 50 each wire, and to form a tapering head upon the opposite end of each of said wires, whereby the tapering openings are completely filled and a firm and certain joint formed between the frame and tongue.

It will be understood that I do not wish to limit myself to any particular mechanism for forming the joint described.

As shown in the drawings, the tapering rivet-head is slightly below the surface of the 60 frame, in order that by striking a moderate blow thereon after the reed is in position it will have room to move to stop a "singer" without injuring the wood.

I am aware that it is not new to connect metal 65 strips by rivets with upset ends, the plates being provided with tapering openings; and therefore I do not claim such feature, broadly; but

What I claim is—

A reed-frame, A, provided with tapering openings a, in combination with reed-tongue B, provided with straight openings, and pins c, provided with rivet-heads and upset ends, substantially as described.

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

AUGUSTUS NEWELL.

Witnesses:

M. J. CLAGETT, W. B. T. KEYSER.