

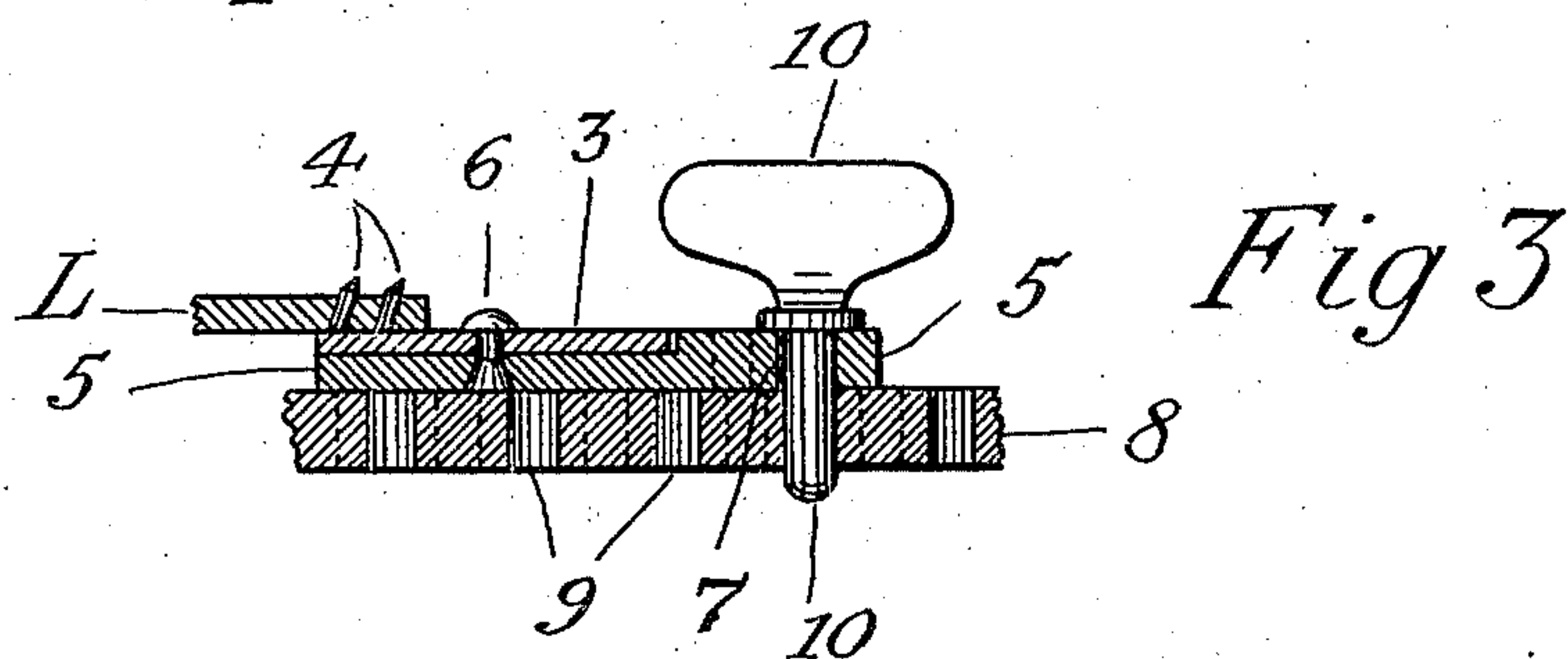
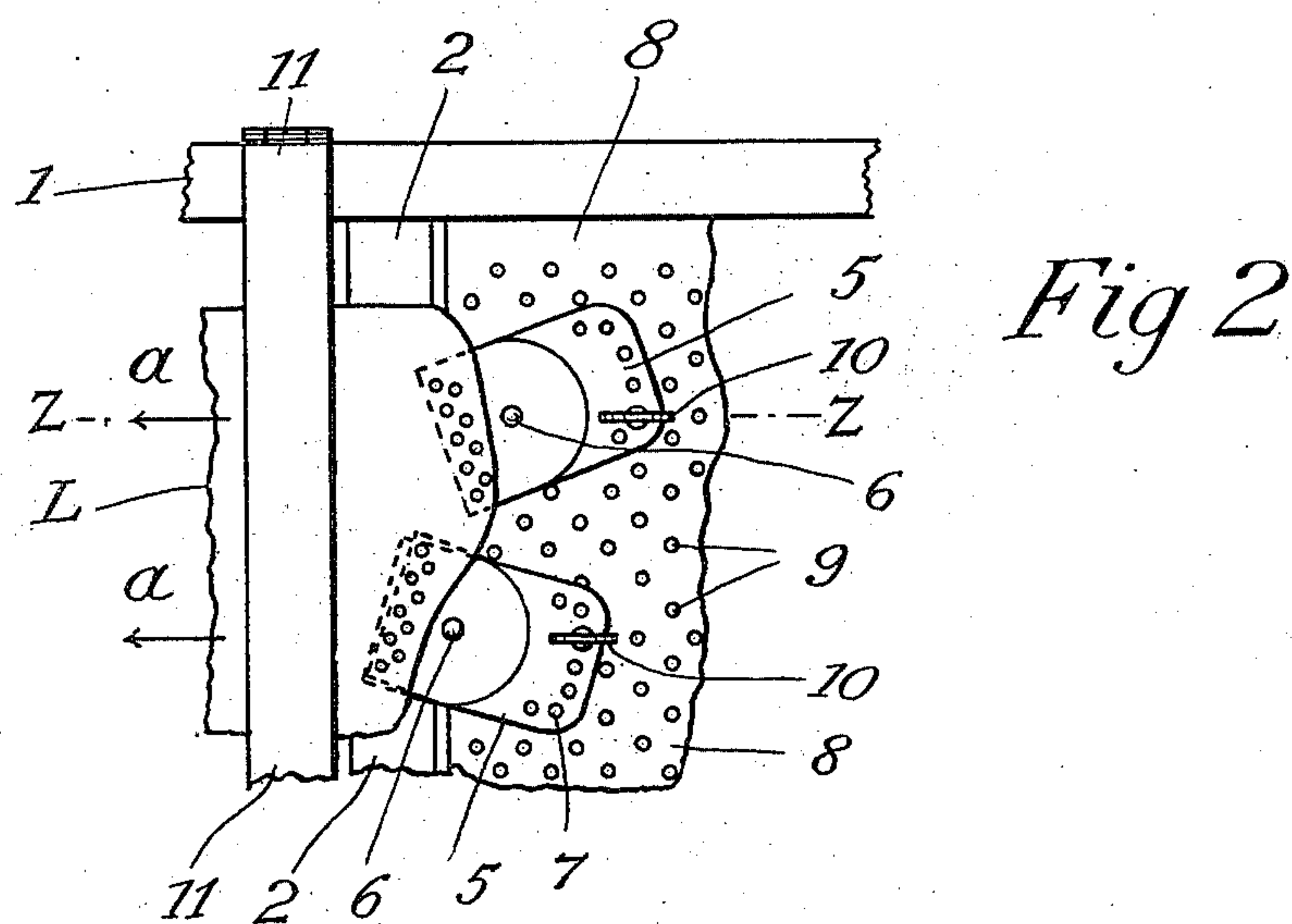
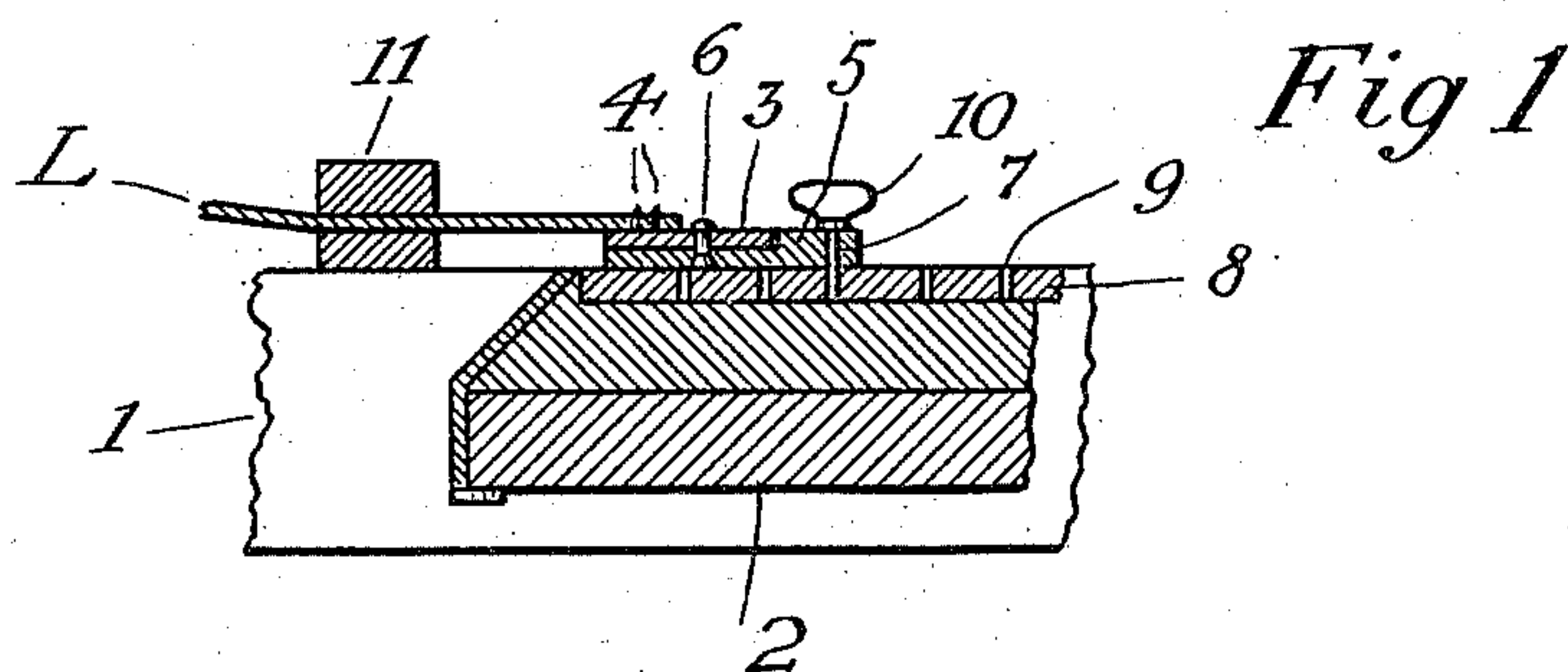
No. 704,510.

Patented July 15, 1902.

J. CALDWELL.  
LEATHER STRETCHING DEVICE.

(Application filed Aug. 6, 1901.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN CALDWELL, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO W. S. NOTT COMPANY, OF MINNEAPOLIS, MINNESOTA, A CORPORATION.

## LEATHER-STRETCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 704,510, dated July 15, 1902.

Original application filed March 26, 1900, Serial No. 10,129. Renewed December 17, 1900, Serial No. 40,215. Divided and this application filed August 6, 1901. Serial No. 71,023. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN CALDWELL, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Leather-Stretching Devices, of which the following is a specification.

My invention relates to leather-stretching machines, and particularly to the devices employed in such machines for holding the leather by engaging marginal portions of it, such devices having suitable connections with the stretcher-heads or other parts of the machine; and the object of the present invention is improvement of the means for connecting such devices to the appropriate parts of the machine.

My improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section of a portion of a stretching-frame and stretcher-head, showing one of the improved holders in operative connection with the head, the section being on the line  $z z$  of Fig. 2. Fig. 2 is a plan view of the same; and Fig. 3 is an enlarged view similar to Fig. 1, showing the leather-holder and connecting devices.

In the drawings, 1 designates one of the side pieces of an ordinary stretching-frame, which is so constructed as to support a side, back, or other division of leather during the operation of stretching it and afterward and until the leather is dried, set, and ready for use. To this frame is secured a fixed head or member 2 for supporting one end of the leather and the holders which are connected to the frame, and a sliding head (not shown) is also to be provided for supporting the other end of the leather and suitably arranged for connection with a cross-head or other moving part of the stretching-machine. My holding devices are adapted for use either with such fixed or movable head or both.

The device for holding the leather consists of a plate 3, the front portion of which is provided with suitable means for engaging the leather, which means may consist of one or more rows of tines or sharp pins 4, adapted to be driven or forced through the leather by pound-

ing or otherwise. Underlying the plate 3 is a base-plate or body 5, provided with a suitable stud or pivot 6 for engaging the plate 3 at a central point close in rear of the tines 4 or other leather-engaging means, and thereby pivotally connecting the plate 3 to the base-plate 5, so that the former may swing freely in lateral direction on the latter. The rear portion of the upper plate 3 is semicircular in form, and the upper part of the lower plate 5 is cut away to the same shape. By this arrangement the plate 3 may be turned at an inclination to the body or base-plate 5 and be attached to a margin of leather and be free to swing and adjust itself under tension. The rear portion of the base-plate 5 is provided with a series of holes 7, and it rests loosely on the surface-plate 8 of the stretcher-head, which is provided with a series of holes 9. A pin or key 10 is inserted in a selected hole 7 in the holder-plate 5 and is pressed into the desired hole 9 in the plate 8.

In putting such devices to use the tines of the holders are driven through the leather *L* approximately on lines parallel with the edge of the leather, and the holders are then secured to the stretcher-head by inserting the pins 9 in the appropriate holes in the holder and head. In order to prevent the leather from rising under tension of stretching, a transverse bar 11 may be locked from side to side of the frame over the surface of the leather. When the holders have been adjusted and connected as stated, power may be applied to the movable head and the leather stretched to the required degree, the movable head being arranged to be locked in place by means of dogs engaging ratchet-teeth in the usual manner, and when the operation is completed the stretcher-frame, together with the leather and the holders, may be removed from the machine and set aside. The arrows *a* indicate the direction of tension of the leather.

This application is a division of the application filed March 26, 1900, Serial No. 10,129, and renewed December 17, 1900, Serial No. 40,215, on which my Patent No. 687,001, of November 19, 1901, was granted.

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

The combination with a perforated stretch-  
er-head, of a leather-holder consisting of a  
base-plate having in its rear portion a series  
of holes, and a second plate pivotally con-  
5 nected thereon and having a free swinging  
lateral movement with respect thereto under  
tension and provided with means for engag-  
ing the leather, and a pin or key inserted in  
selected holes in the base-plate and stretcher-

head, for pivotally connecting the leather- 10  
holder to the stretcher-head, substantially as  
set forth.

In testimony whereof I have hereunto set  
my hand this 30th day of July, 1901.

JOHN CALDWELL.

In presence of—

M. F. HARRISON,

P. H. GUNCKEL.