

(No Model.)

W. L. PIKE.  
TOP JOINT LEVER.

No. 461,845.

Patented Oct. 27, 1891.

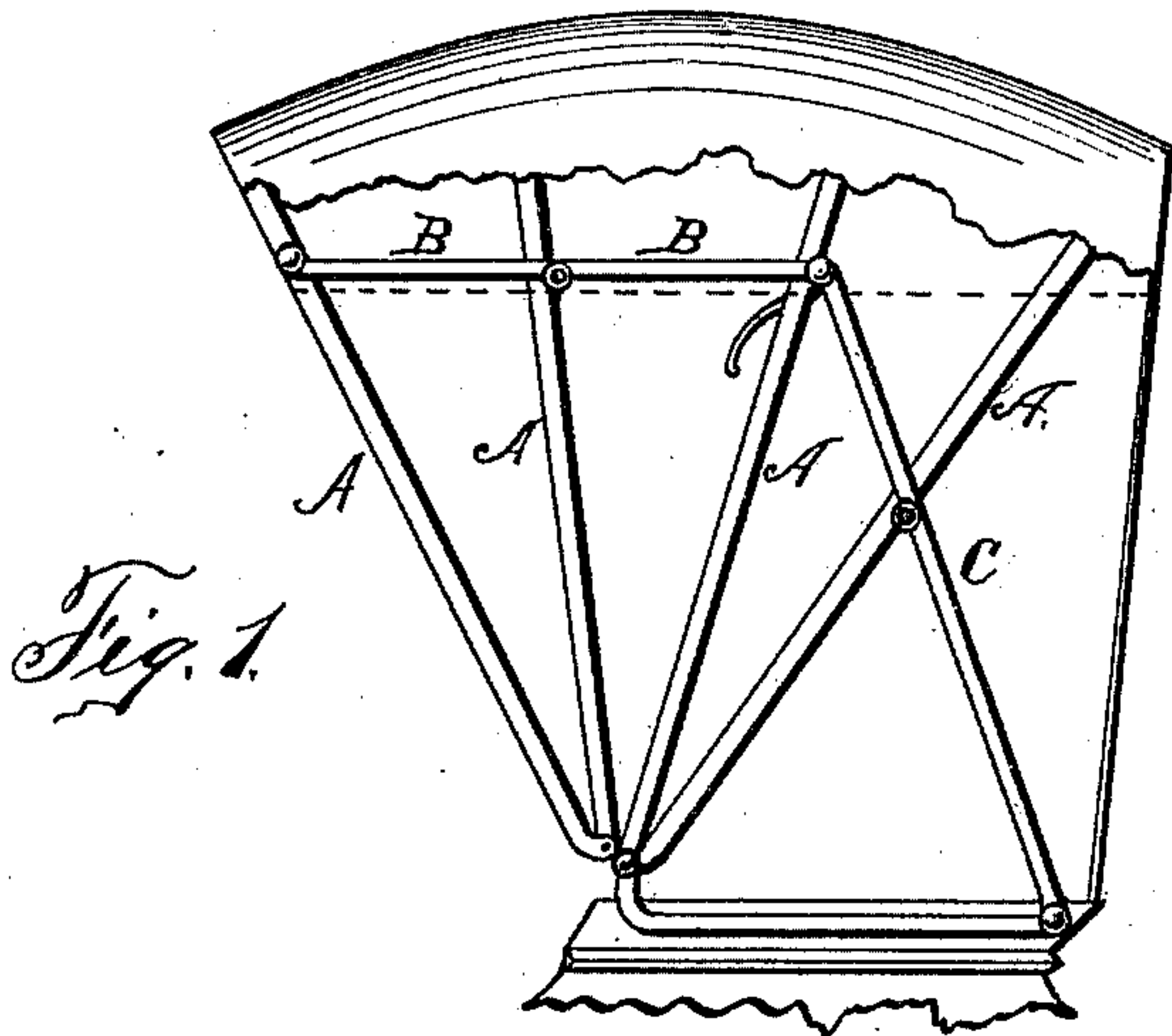


Fig. 1.

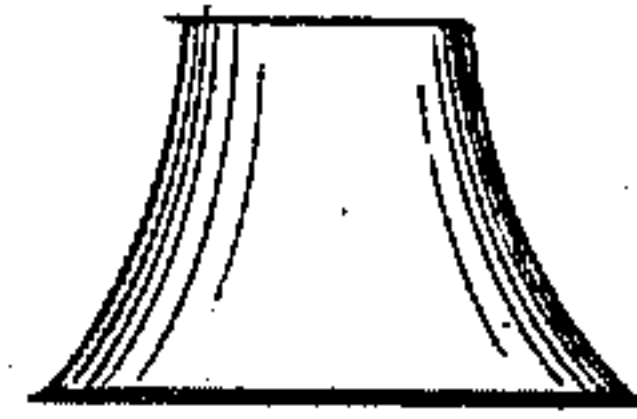


Fig. 6.

Fig. 2.

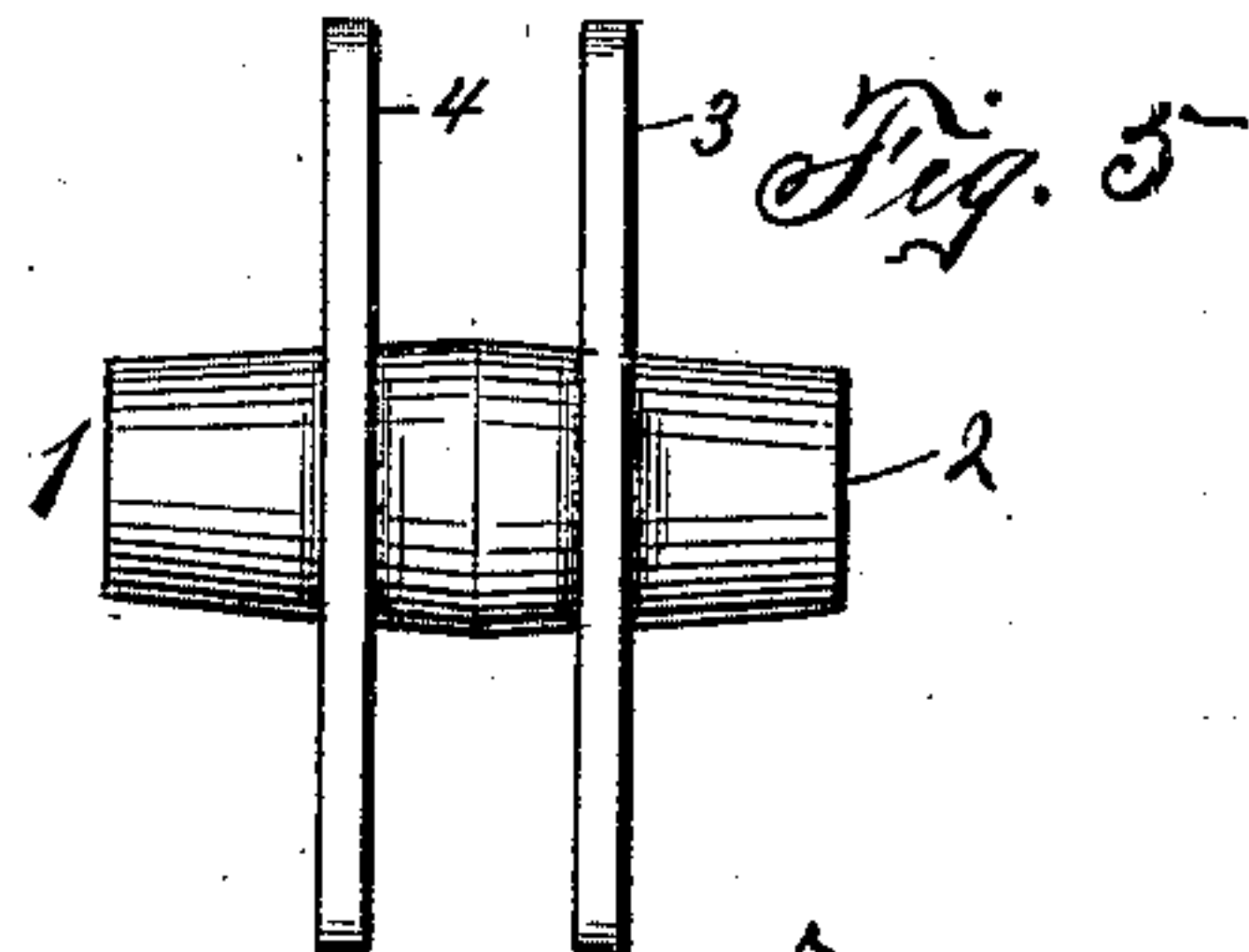
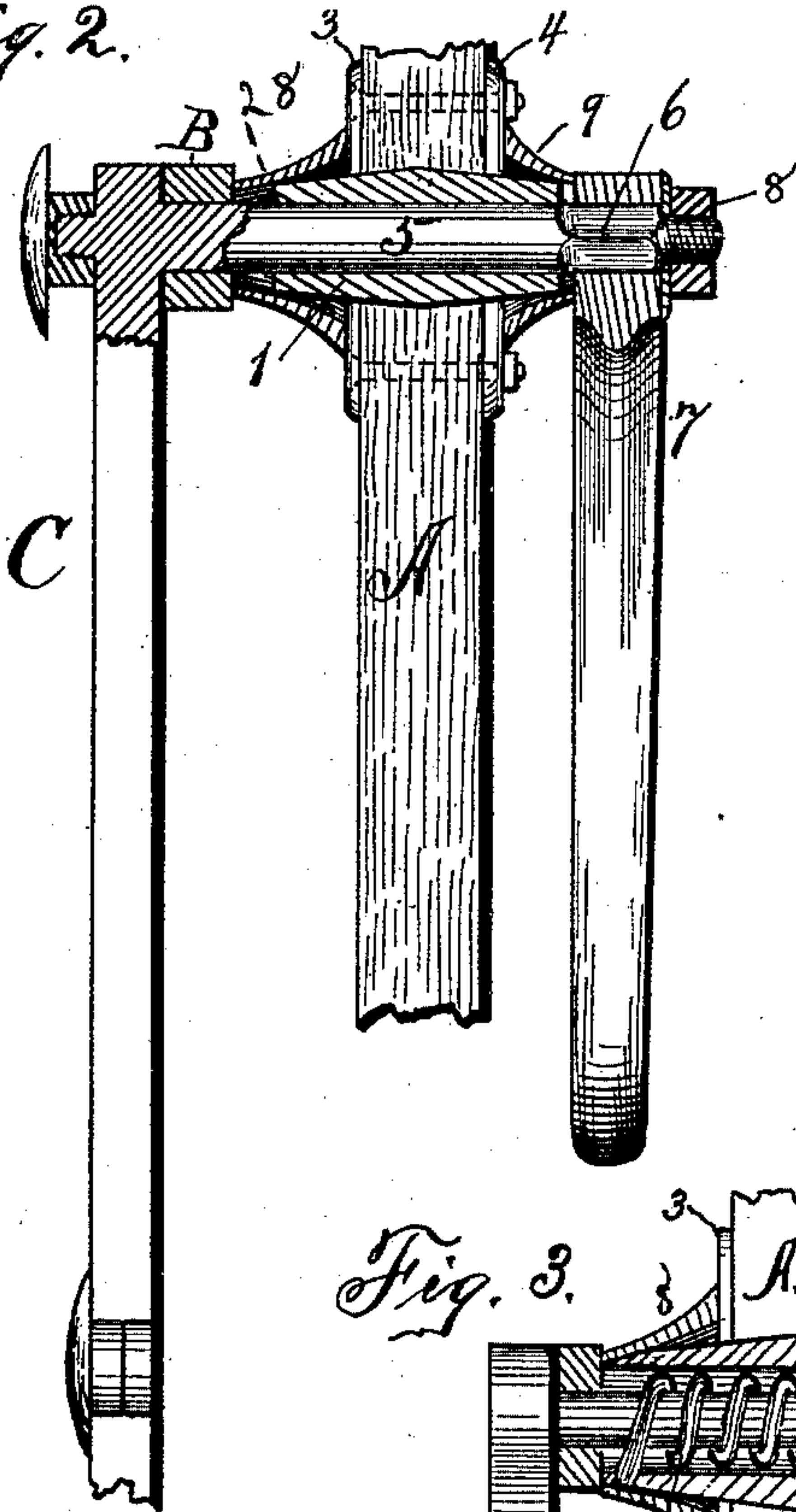


Fig. 5.

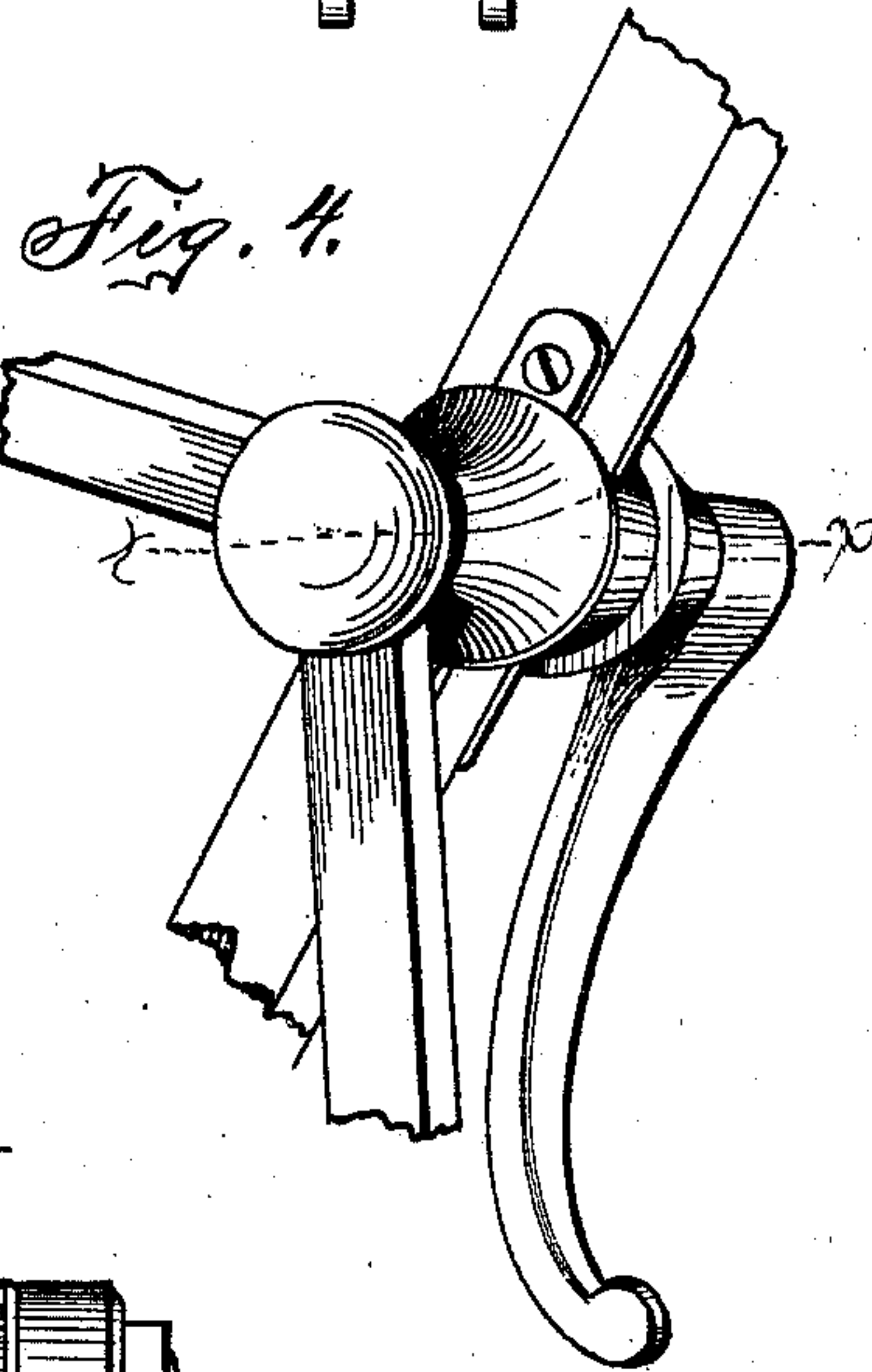


Fig. 4.

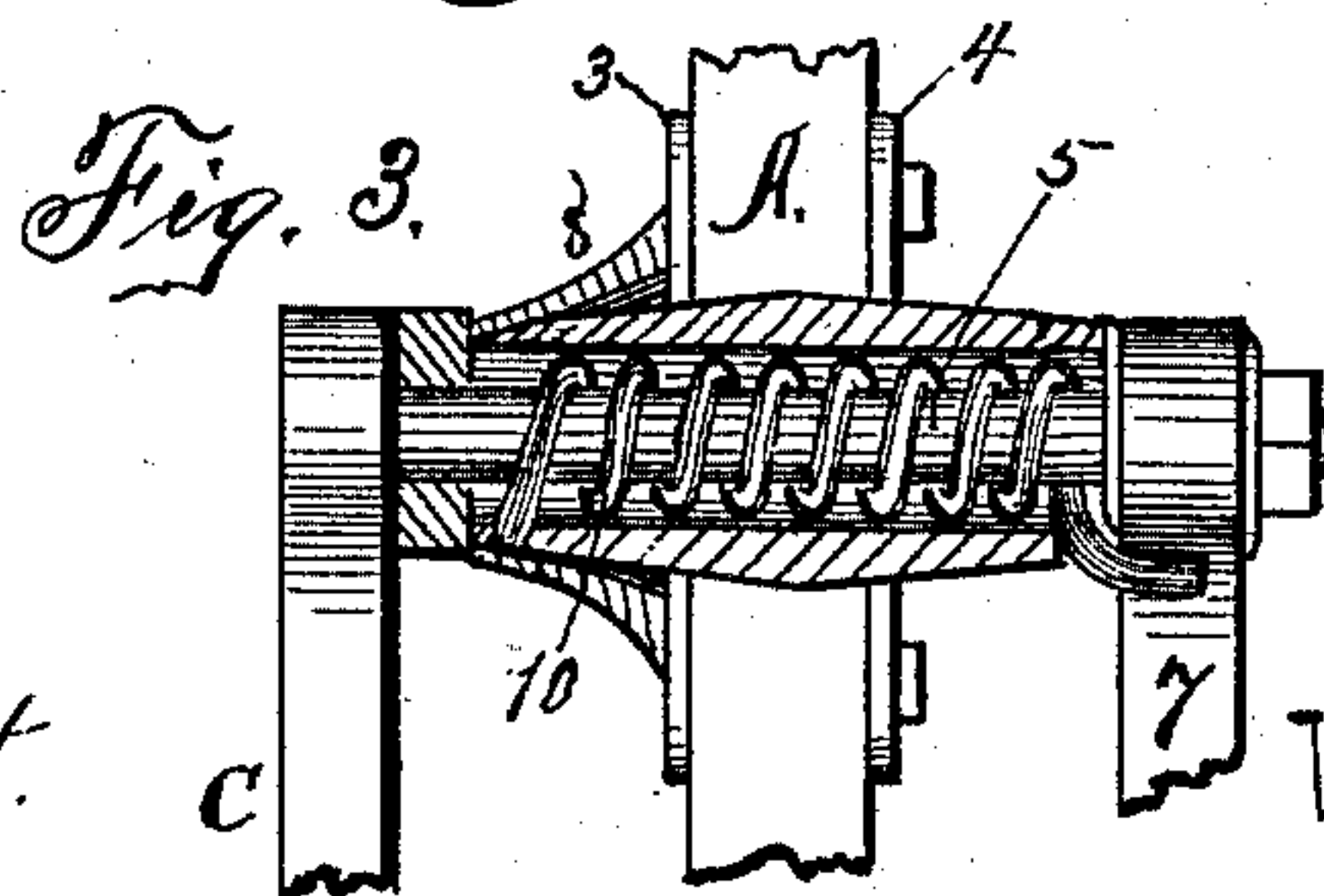


Fig. 3.

Witnesses  
H. A. Carhart.  
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Inventor  
William L. Pike.

By his Attorney  
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# UNITED STATES PATENT OFFICE.

WILLIAM L. PIKE, OF GROTON, NEW YORK.

## TOP JOINT-LEVER.

SPECIFICATION forming part of Letters Patent No. 461,845, dated October 27, 1891.

Application filed February 10, 1891. Serial No. 380,903. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. PIKE, of Groton, in the county of Tompkins, in the State of New York, have invented new and useful  
5 Improvements in Top Joint-Levers, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to the construction and  
10 operation of inside joint-levers for carriage-tops.

My object is to produce such a device by which the top may be raised or lowered from within, which is cheap and durable and of  
15 great utility.

My invention consists in the several novel features of construction and operation hereinafter described and which are specifically set forth in the claim hereunto annexed. It  
20 is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the carriage-top with my device attached thereto. Fig. 2 is a longitudinal section on line *x x*, Fig. 4,  
25 with the spring removed. Fig. 3 is a similar view thereof showing spring. Fig. 4 is an enlarged view of my invention complete. Fig. 5 is a view of the casting through which the arm passes detached. Fig. 6 is a view of frusto-conical casting used as fillers between the  
30 bow and the brace and operating-piece, respectively.

Similar letters and numerals of reference indicate corresponding parts.

35 A A are the bows of the carriage-top. B B are the cross-braces, and C the inclined brace connecting them with the rail upon the seat. To one side, preferably to the rear side, of one of the bows, and having its cylindrical  
40 body extending laterally at right angles thereto, I secure a casting consisting of the cylindrical body 1, having a central opening 2 and vertical flange-like side pieces 3 and 4, which are provided with screw-holes by which the  
45 casting is secured to the bow when the bow

is placed between them. The upper joint of the inclined brace has an arm 5 constructed continuous therewith, as shown in Fig. 2, or it may be secured rigidly thereon, and near its inner end it is constructed angular, as at  
50 6, upon which the lever 7 is secured, and 8 is a nut for the purpose of securing the lever upon said arm.

8 and 9 are frusto-conical castings and serve as fillers between the outer face of the  
55 outer side piece 3 upon the bow and the inner face of the braces B and between the inner face of the bow A and the inner face of the lever 7.

10 is a coil-spring encircling the arm 5, hav-  
60 its outer end passing through the opening in the casting 8 and secured to or about the brace C and its inner end secured to the inner end of sleeve 1. It will be observed that the spring always exerts a tension on the brace C to keep  
65 the top in the raised position; but when the top is lowered a greater tension is produced by the spring and serves to assist in raising the top when desired. It will also be observed that, instead of using the lever 7, any other  
70 well-known operating-piece may be employed.

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

In a top joint-lever, the combination of a casting consisting of a cylindrical body hav-  
75 ing a central opening therein and vertical side pieces thereon adapted to be secured to the bow and the rear brace of the top, the bow and the rear brace having an inwardly-extending arm integral therewith, a coil-spring  
80 surrounding said arm with said cylinder and secured at ends to the operating-lever and to the brace C, and means for rocking said arms, as set forth.

In witness whereof I have hereunto set my hand this 27th day of January, 1891.

W. L. PIKE.

In presence of—

HOWARD P. DENISON,  
C. W. SMITH.