

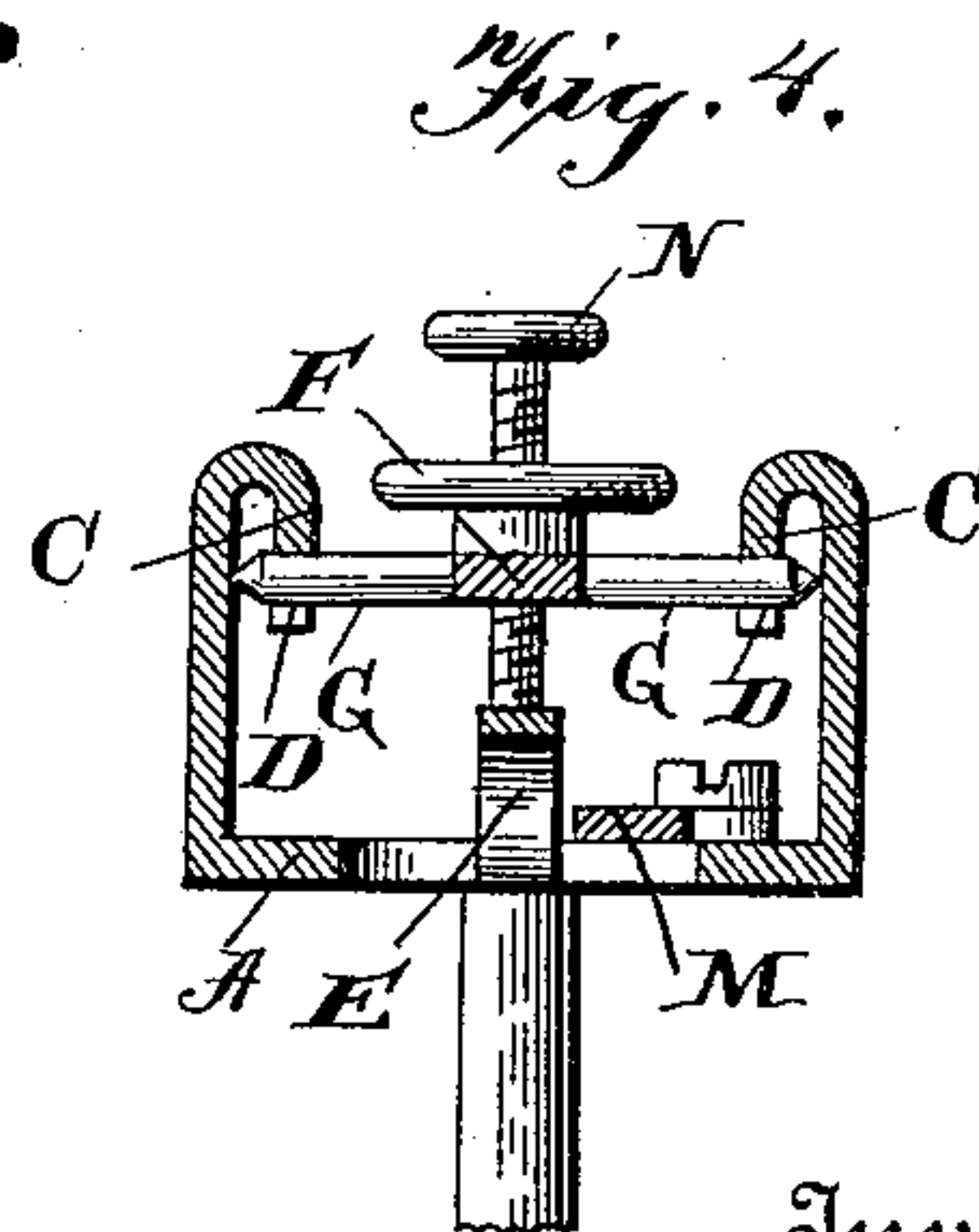
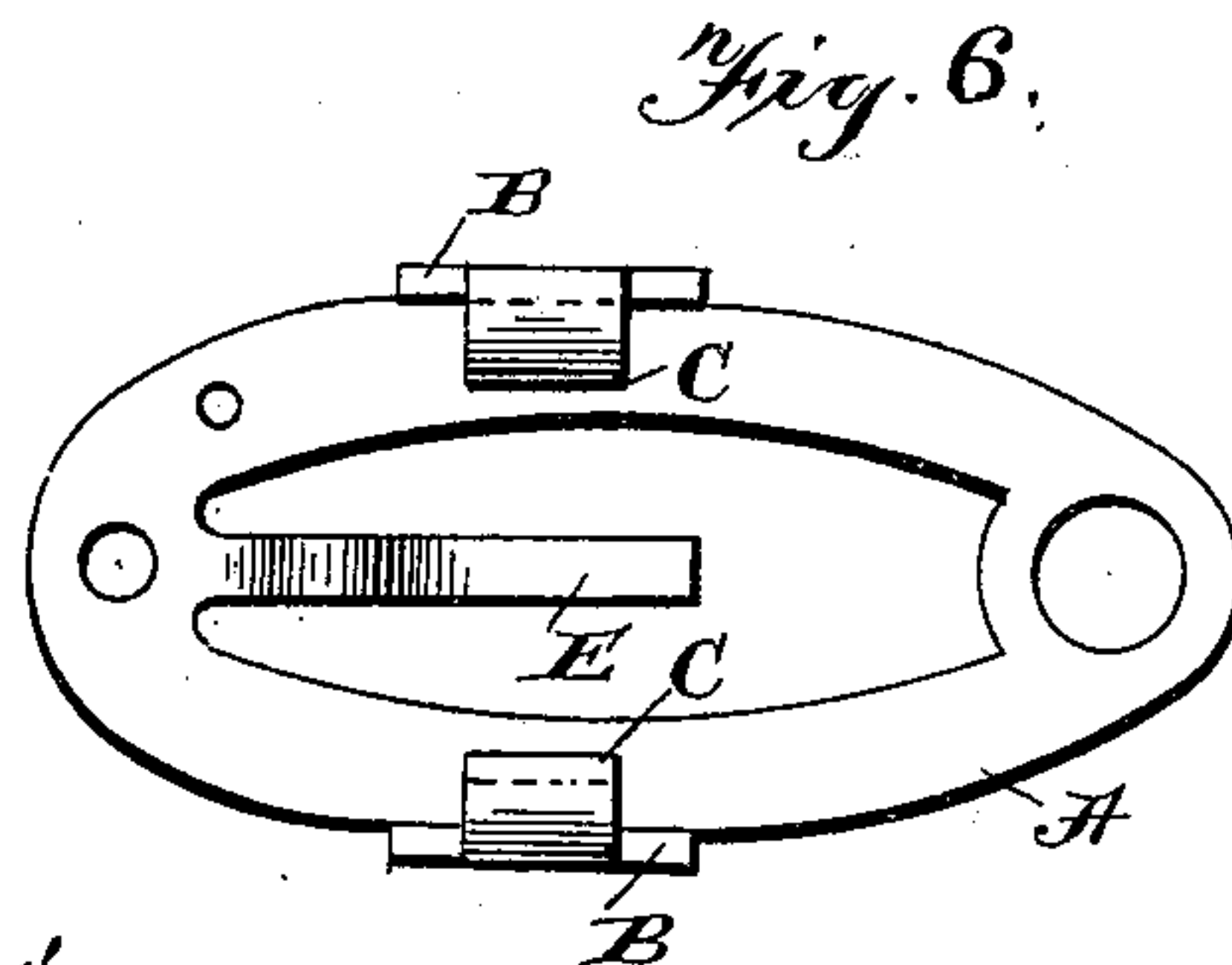
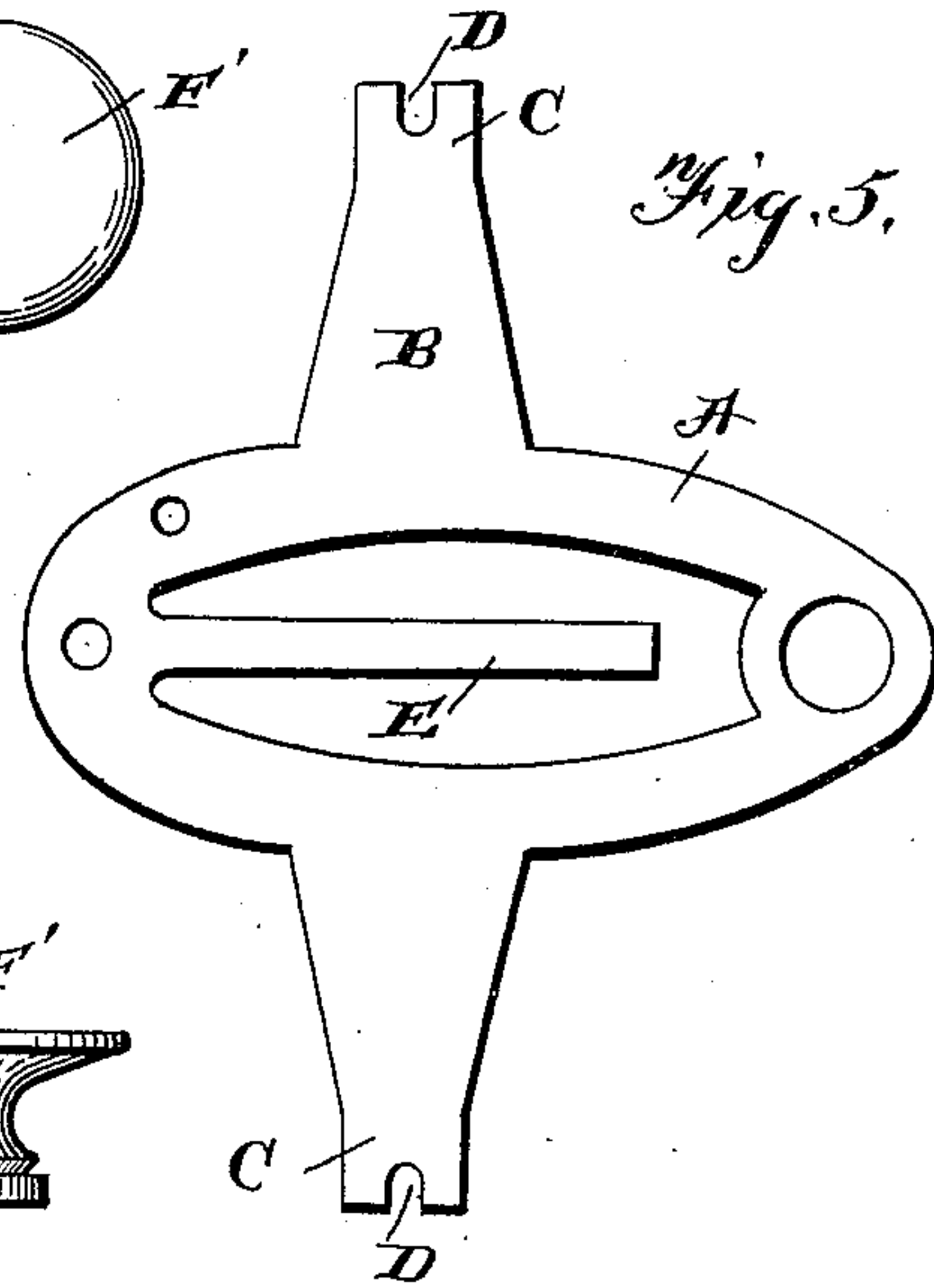
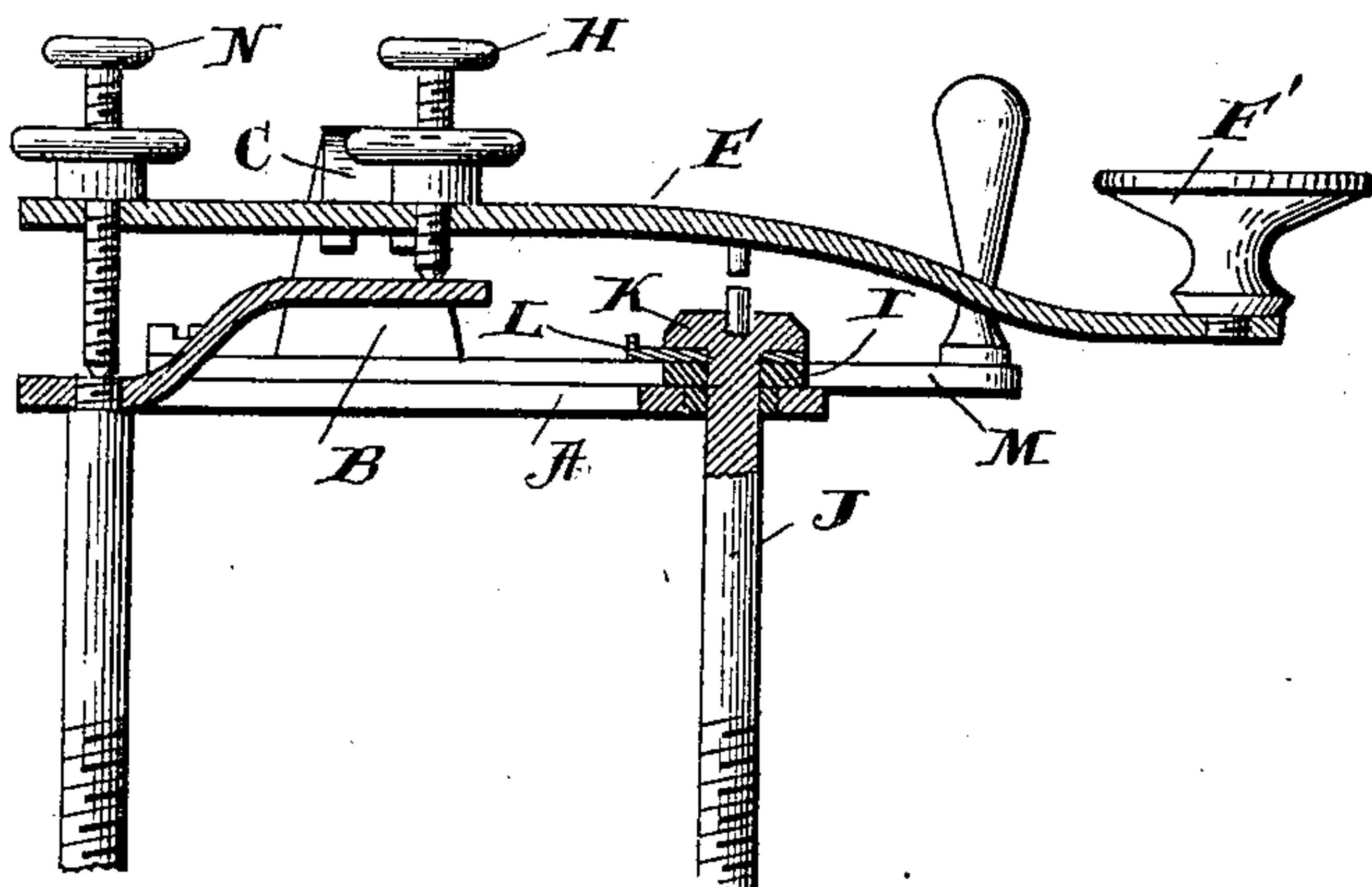
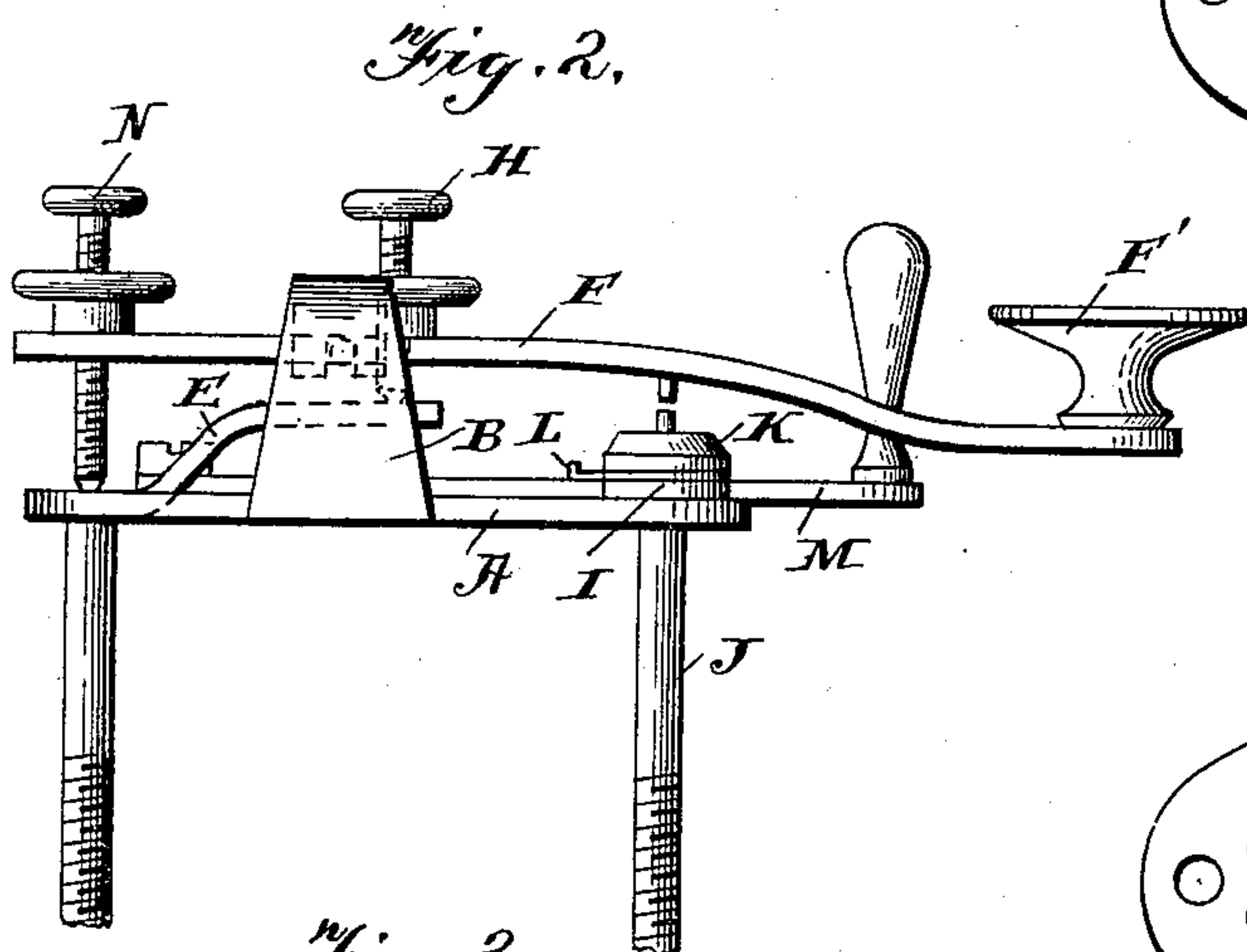
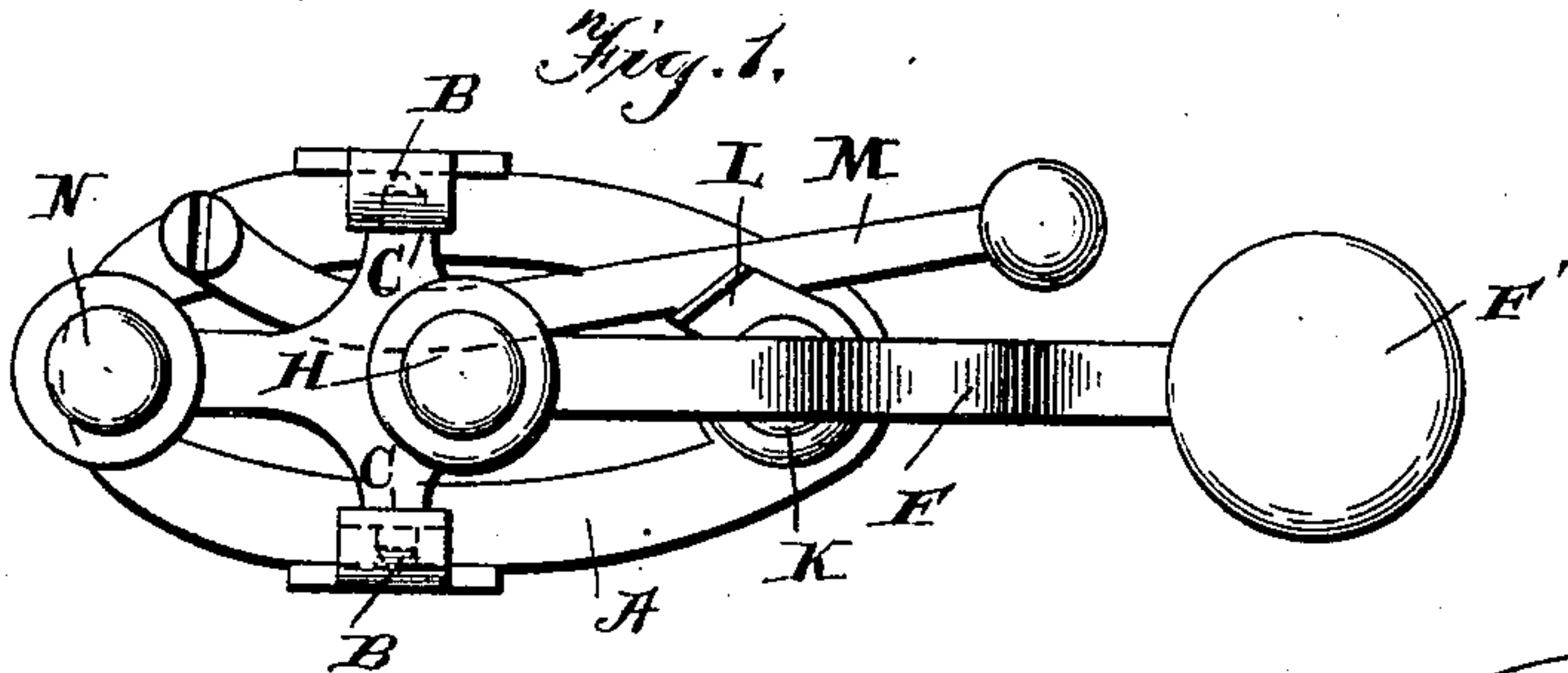
No. 611,919.

Patented Oct. 4, 1898.

F. E. LEWIS.  
TELEGRAPH KEY.

(Application filed Dec. 2, 1897.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

FRANK E. LEWIS, OF JEFFERSON, TEXAS.

## TELEGRAPH-KEY.

SPECIFICATION forming part of Letters Patent No. 611,919, dated October 4, 1898.

Application filed December 2, 1897. Serial No. 660,545. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK E. LEWIS, of Jefferson, in the county of Marion and State of Texas, have invented certain new and useful  
5 Improvements in Telegraph-Keys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The object of the present invention is to minimize the essential parts of a telegraph-key and to cheapen its construction and increase its effectiveness.

My invention contemplates the formation of the key-base, the bearings for the key-lever journals, and the lever-actuating frame of a single blank of sheet-steel, brass, or other  
20 suitable metal bent to proper form.

The invention consists in certain novel features of construction hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

25 Figure 1 is a plan view of the key. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a cross-sectional view. Fig. 5 is a view of the blank from which the key-base, bearings, and lever-spring are formed. Fig. 6 is a plan view of the blank bent to the proper form.

The base A of the key consists of sheet metal and is annular in outline, provided at its outer opposite edges with outwardly-projecting arms B, having notches D in their  
35 ends, and projecting inwardly from the rear inner edge of the annular portion A of the base is an arm E. The arms B are bent upward at right angles to the base, as clearly illustrated in Fig. 4, and their extremities are turned inward and downward, forming overhanging boxes for the trunnions of the keys. The arm E is bent upward, as shown in Fig. 3, and forms a spring for holding the trunnions of the keys in position and also serves  
45 to hold the operating end of the key normally upward.

Key-lever F carries outwardly-projecting pointed trunnions G, and these trunnions  
50 bear upward in notches D of overhanging bearings C. Spring E immediately beneath the key-lever holds the latter normally raised

with the trunnions in proper place, the engagement of the spring and lever being rendered adjustable by set-screw H. 55

The distance from point to point of the lever-trunnions is the same as the distance between the inner faces of posts B, so that the sharpened extremities of the former bear against said surfaces, thus making sure contact and providing therefor a frictionless end thrust. 60

Insulated bushing I is arranged on leg J of anvil K and separated from the latter by lip L.

M designates the usual circuit-closing lever, and N a vertically-adjustable stop depending from the end of the lever F opposite key F'. 65

The mounting of the key-lever is extremely simple and exceptionally durable, there being  
70 no delicate parts—such as trunnion-screws, coiled springs, &c.—to become worn or disordered. The main portion of the key being formed of polished sheet metal, the expense of polishing the cast key of ordinary construction after its manufacture is avoided. 75

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

1. A blank for telegraph-keys comprising  
80 an annular base having oppositely and outwardly projecting arms with notches in their extremities, and a forwardly-extending arm within the annular portion, the said opposite-extending arms adapted to be bent upward  
85 to form bearing-posts for the key-trunnions, and the inwardly-extending arm adapted to be bent upward to form a spring, substantially as described.

2. The key-base, the upright bearing-posts,  
90 and the key-lever spring stamped from sheet metal and bent to proper shape, substantially as shown and described.

3. The sheet-metal base A having an upwardly-extending key-lever spring stamped  
95 therefrom and remaining integral therewith at one end, substantially as shown and described.

4. An improved telegraph-key comprising a base having upwardly-extending spring-  
100 posts with their extremities bent inward and downward and provided with upwardly-extending notches, a key having trunnions with pointed ends seated in the said notches and



against the inner sides of the spring-posts, and a member for holding the key-trunnion upward within the said notches, substantially as described.

5 5. An improved telegraph-key comprising a base having struck up therefrom and integral therewith a longitudinally-extending and upwardly-pressing spring-arm, and a key-lever held in its upward position thereby, substantially as described.

10 6. An improved telegraph-key including upright bearing-posts having inwardly-extending overhanging boxes, a key-lever provided with trunnions adapted to be inserted  
15 from beneath in said boxes, and an upwardly-pressing spring for holding the trunnions normally in place, substantially as shown and described.

20 7. An improved telegraph-key including the upright bearing-posts having their upper extremities bent inward and turned downwardly, the downwardly-turned portion being upwardly notched, the key-lever having

outwardly-projecting trunnions journaled in the notches, and an upwardly-pressing spring 25 for holding the lever normally in place, substantially as shown and described.

8. An improved telegraph-key, including a base, upright bearing-posts having inwardly-extending overhanging and upwardly-notched boxes at their upper ends, the 30 key-lever formed with oppositely-projecting sharpened trunnions adapted to snugly fit the space between the upright bearing-posts with the latter receiving the end thrust of 35 the trunnions and the trunnions bearing upward in the notched boxes, and a spring for holding the lever in position, substantially as shown and described.

In testimony whereof I affix my signature 40 in presence of two witnesses.

FRANK E. LEWIS.

Witnesses:

E. J. ALLEN,  
GEO. W. KEESE.