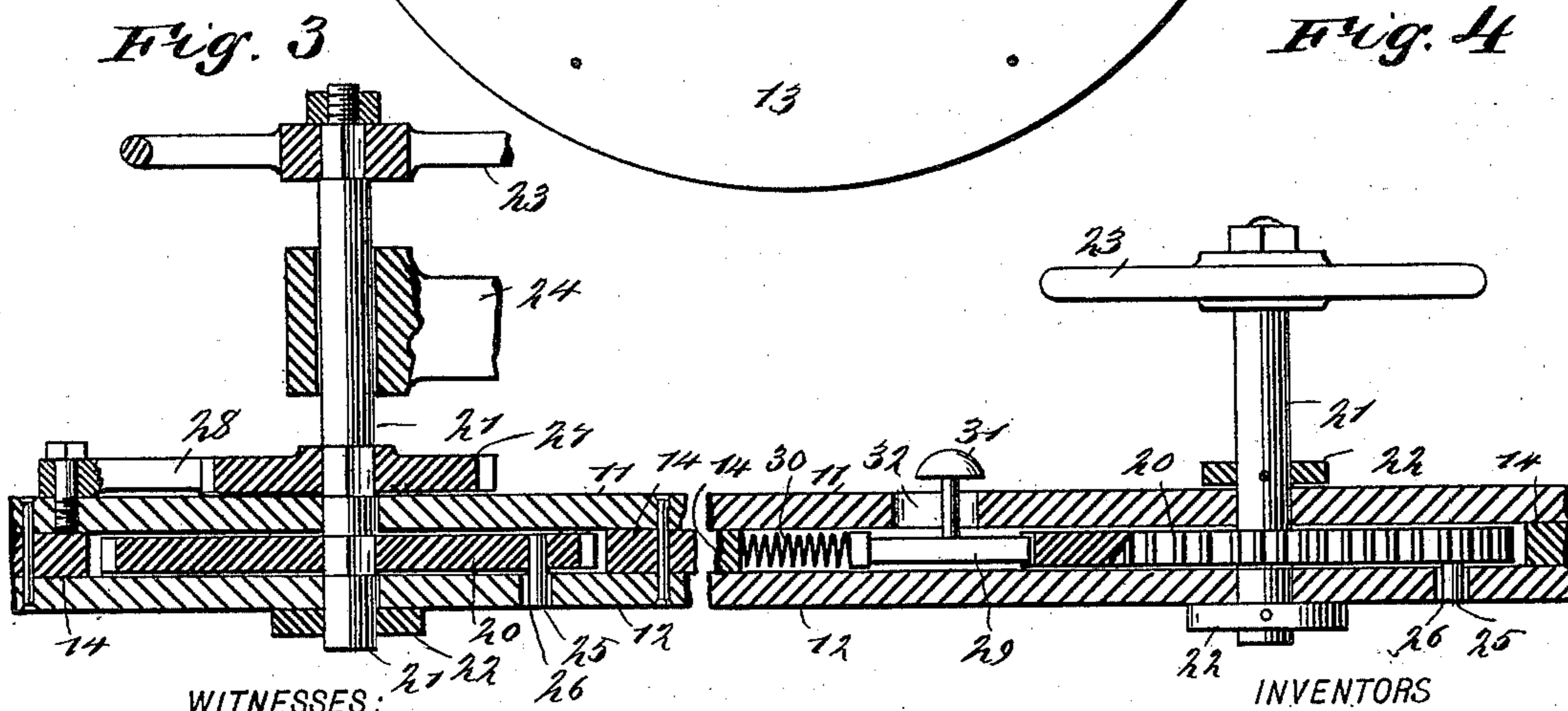
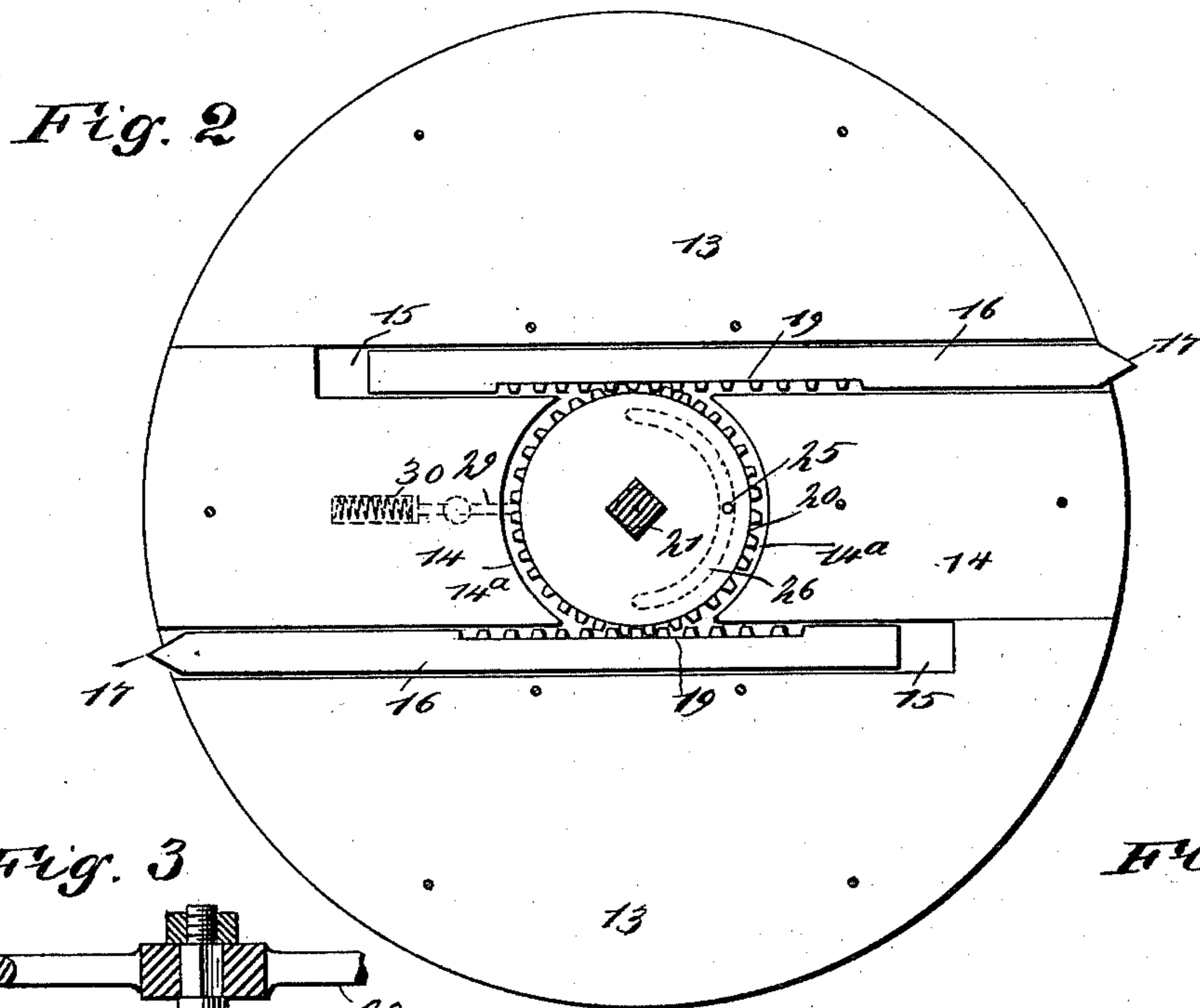
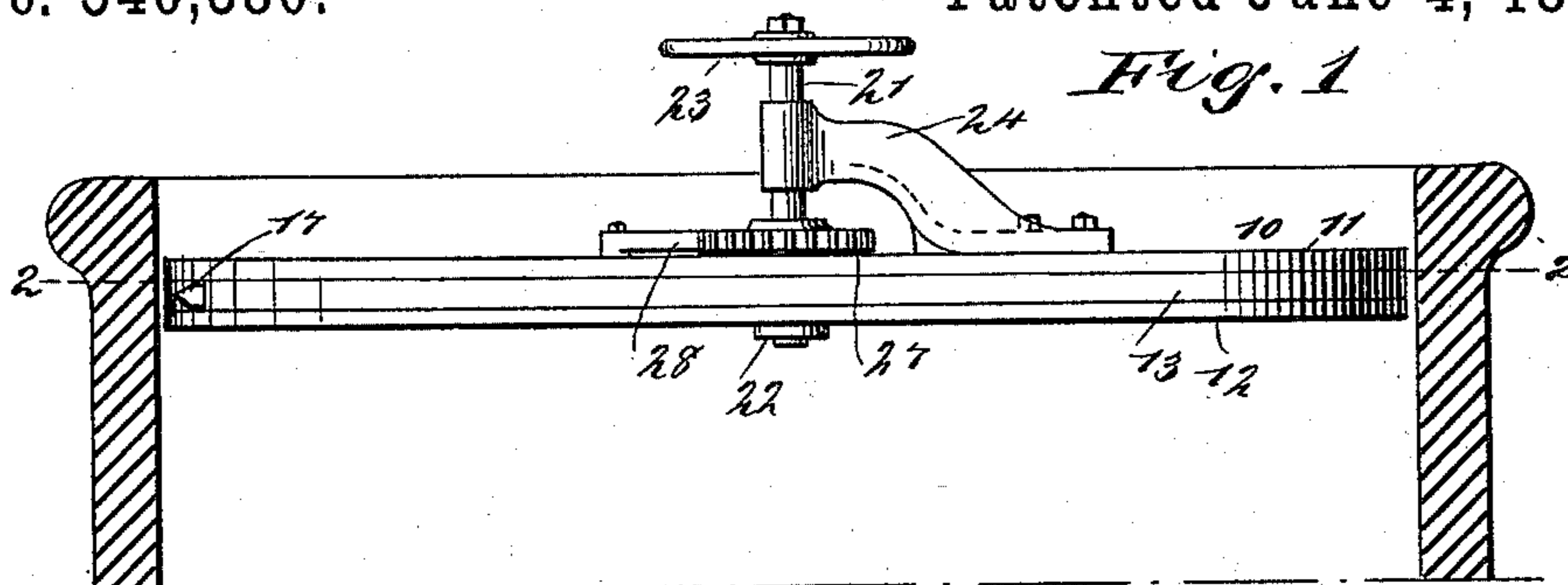


(No Model.)

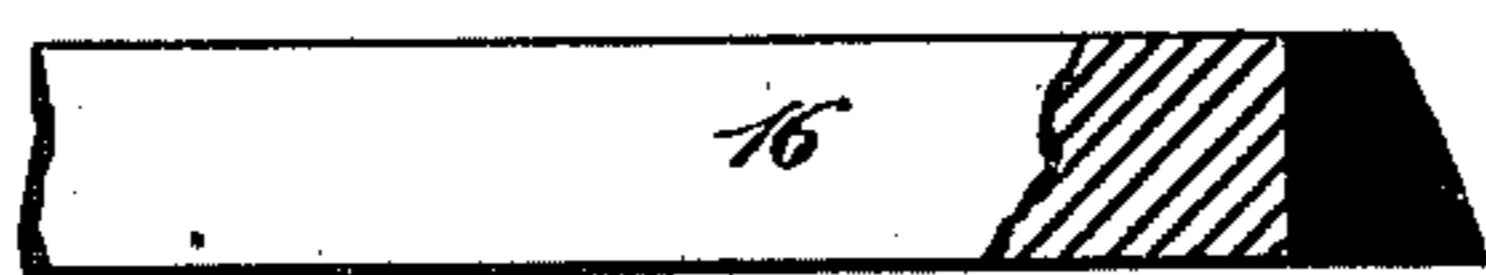
G. M. BURROUGHS & F. K. ROBERTS..  
BARREL HEAD.

No. 540,380.

Patented June 4, 1895.



WITNESSES:  
*J. a. Bergstrom*  
*C. Sedgwick*



INVENTORS  
*G. M. Burroughs*  
*F. K. Roberts*  
BY *Mum & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE M. BURROUGHS AND FRANK K. ROBERTS, OF SANTA CRUZ,  
CALIFORNIA.

## BARREL-HEAD.

SPECIFICATION forming part of Letters Patent No. 540,380, dated June 4, 1895.

Application filed May 8, 1894. Serial No. 510,484. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE M. BURROUGHS and FRANK K. ROBERTS, of Santa Cruz, in the county of Santa Cruz and State of California, have invented a new and Improved Barrel-Head, of which the following is a full, clear, and exact description.

Our invention is an improvement in the class of barrel-heads which are provided with sliding bars for securing them in barrels at any desired height from the bottom thereof.

The general construction and novel features of the barrel-head are hereinafter described and pointed out.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of our improved head as arranged in a receptacle, the latter being shown in section. Fig. 2 is a sectional plan of the head on the line 2 2 in Fig. 1, showing in detail the construction of the middle plate of the head and the arrangement of the locking-bars, also the mechanism for moving the latter and a modified means of locking the driving cog-wheel. Fig. 3 is a broken detail sectional view of the central portion of the head, the cog or gear mechanism for operating the locking-bars, and the ratchet device for fastening the main cog-wheel. Fig. 4 is a similar view of a slightly-modified form of head; and Fig. 5 is a broken detail elevation, partly in section, of a portion of one of the locking-bars.

The barrel head 10 is composed of an upper and lower plate 11 and 12 and an interposed middle plate made up of four pieces, the two outer pieces 13 having straight inner edges and outer edges adapted to lie flush with the outer edge of the head, and two middle pieces 14 which are fastened firmly between the outer pieces 13, and the outer ends of which also conform to the general shape of the edge of the head. The middle pieces 14 are recessed at their inner ends, as shown at 14<sup>a</sup>, to provide room for the turning of the main cog wheel, as hereinafter described, and between the pieces 13 and 14 are ways 15 which open from opposite edges and in which are held to slide locking bars 16 which are

adapted to be forced outward from the ways 15, and these bars have pointed ends 17 if the head is to be used in a wooden vessel, so that they may be readily forced into the wood of the vessel and thus bind the head in place; but when the head is to be used in a vessel other than a wooden one, the locking bars are provided with rubber tips 18 at their outer ends, (see Fig. 5) or with a similar frictional material, which tips are forced firmly against the wall of the receptacle so as to fasten the head in place. These locking bars 16 have teeth on their inner edges, as shown at 19, which engage the teeth of a cog wheel 20 carried by a vertical shaft 21 which is provided with a suitable washer 22 on the under side of the head and, in some cases, with a washer on the upper side, as in Fig. 4. The shaft is provided with a hand wheel 23 by which it may be turned, and it is preferably mounted in a bracket 24, which is secured to the top of the barrel head, as in Fig. 1, although it may be used without the bracket, as illustrated in Fig. 4.

To prevent the cog wheel from being turned too far, it is provided with a pin 25 which projects from its under side and turns in a curved slot 26 in the bottom plate 12, this slot and pin limiting the movement of the cog wheel.

The shaft has secured to it, a ratchet wheel 27, which is placed on the upper side of the barrel head, and this is engaged by a pawl 28 so that when the shaft is turned to throw out the locking bars, the ratchet wheel prevents it from turning back and consequently locks the bars in place. Instead, however, of the ratchet wheel and pawl, the arrangement shown in Figs. 2 and 4 may be used, where a sliding pawl 29 having a button 31, is arranged in a recess between the upper and lower plates 11 and 12, and is pressed by a spring 30 into engagement with the cog wheel 20. It will be seen then that the pawl 29 will normally engage and lock the cog wheel, and when the latter is to be turned back, the operator must first push back the button 31, thus releasing the pawl.

It will be seen from the above description that the head is of a very simple construction, and that it may be readily adjusted at any

desired height in the receptacle and fastened there by simply turning the hand wheel 23, as this turns the cog wheel 20 and forces out the locking bars so as to fasten them and the  
5 head securely to the receptacle.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The combination with the sectional barrel-

head having parallel recesses, of slidable rack- 10  
bars arranged in said recesses and having rubber tips as specified, and means for sliding said rack bar, as shown and described.

GEORGE M. BURROUGHS.

FRANK K. ROBERTS.

Witnesses:

PEARL MAKINNEY,

HUGH S. GORDON.