

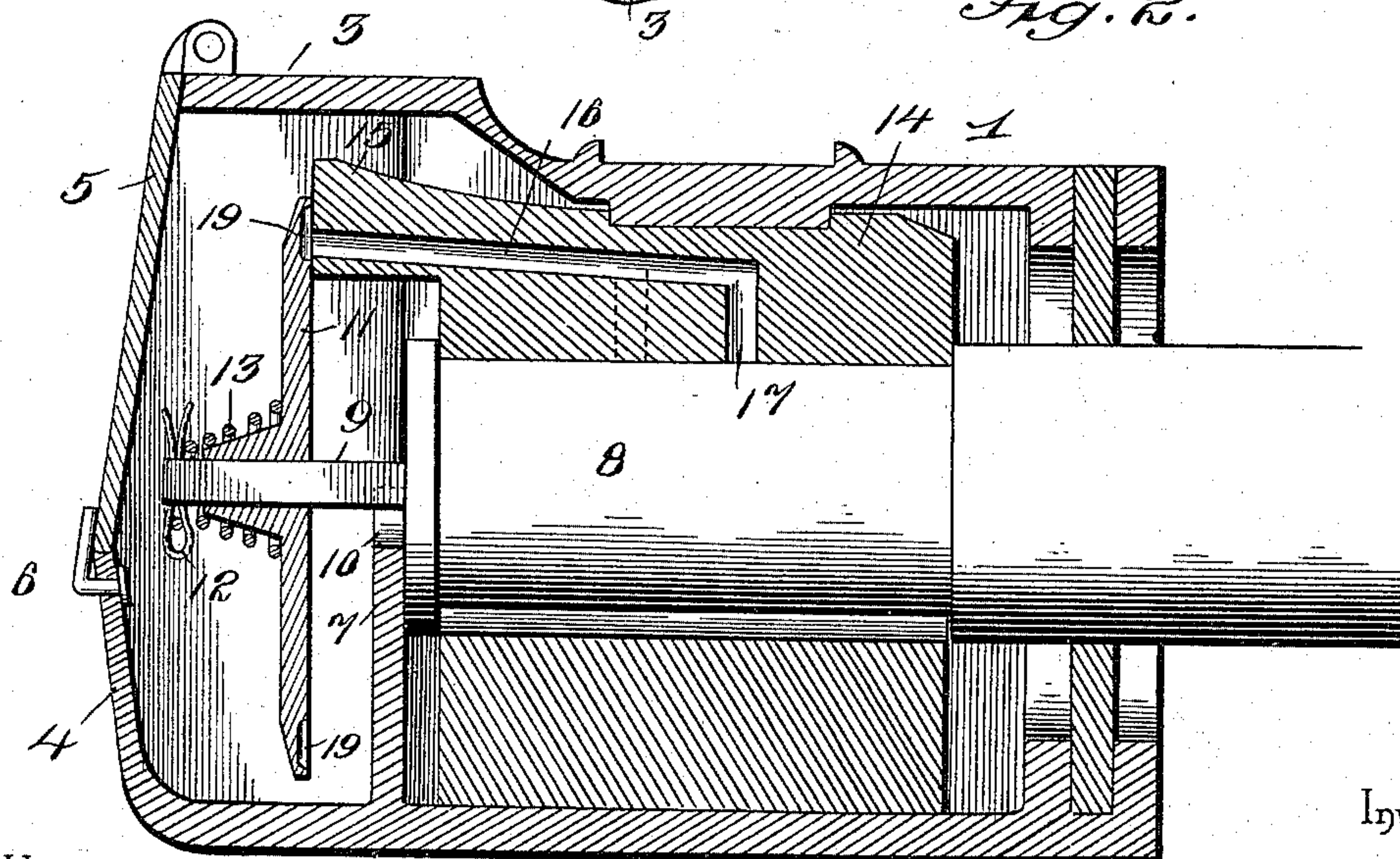
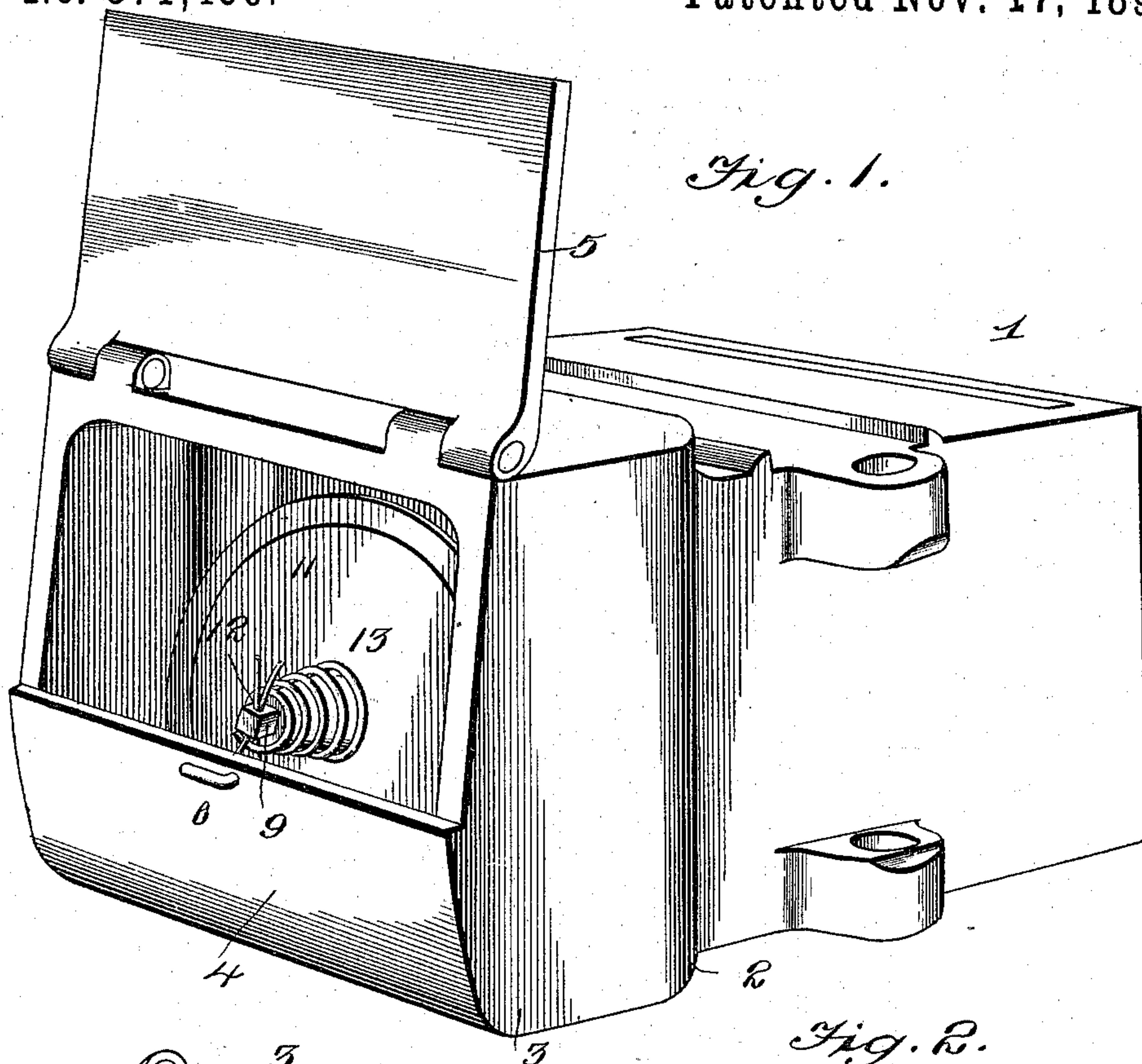
(No Model.)

2 Sheets—Sheet 1.

J. L. MARTIN.  
JOURNAL BOX.

No. 571,490.

Patented Nov. 17, 1896.



Witnesses

*H. J. Koerth.*  
*R. M. Smith.*

By *his* Attorneys,

Inventor  
*Joseph L. Martin,*  
*C. A. Snow & Co.*



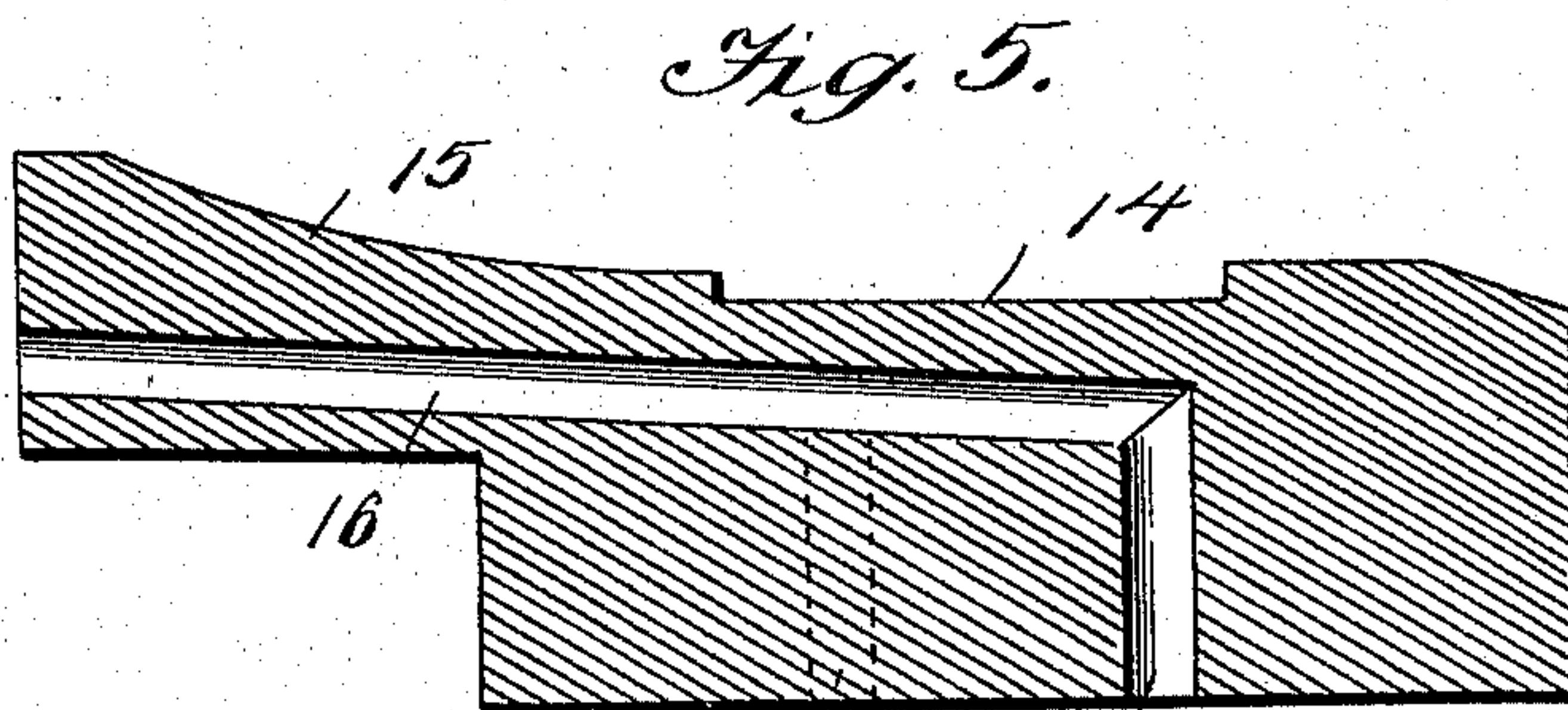
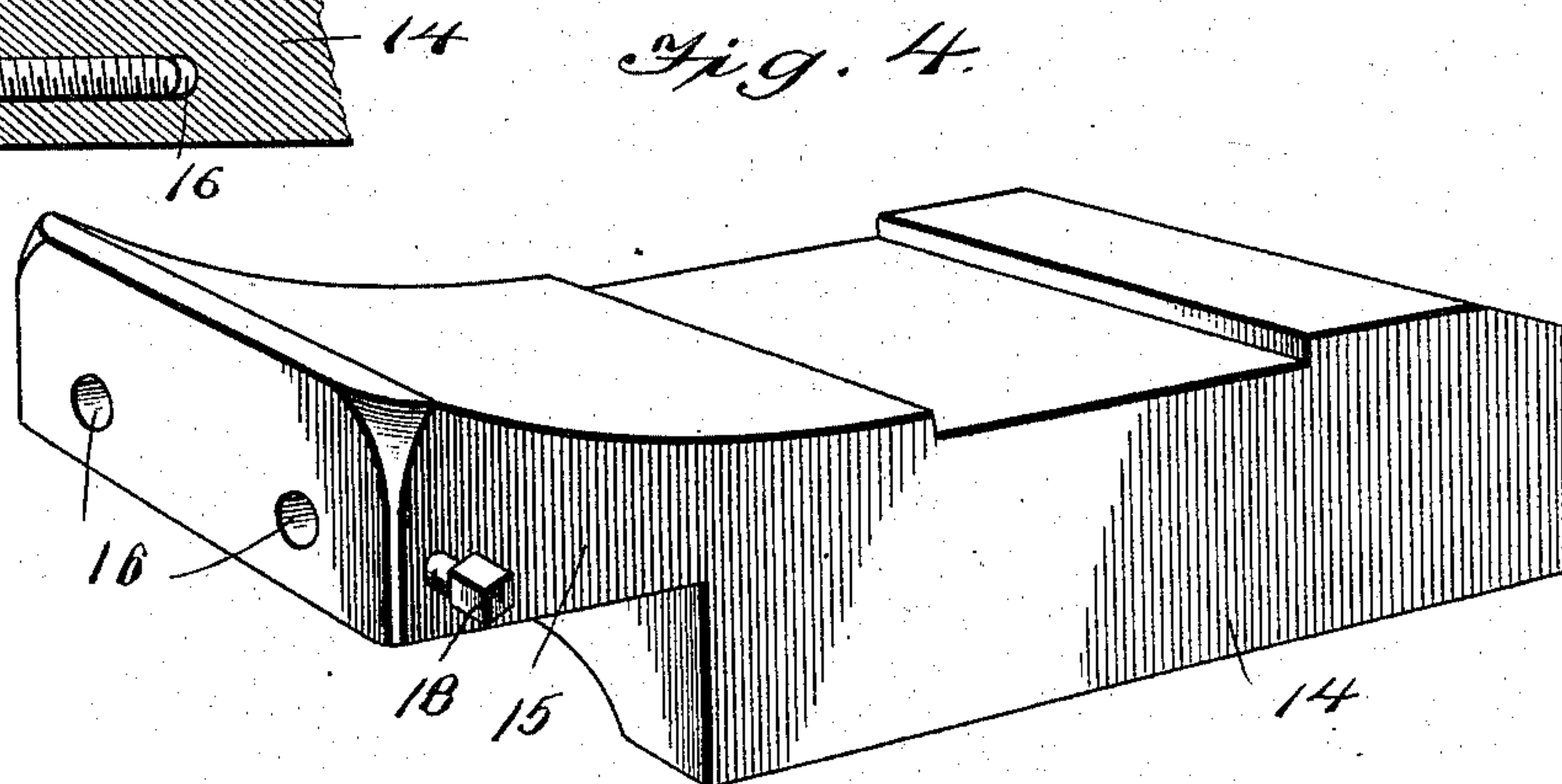
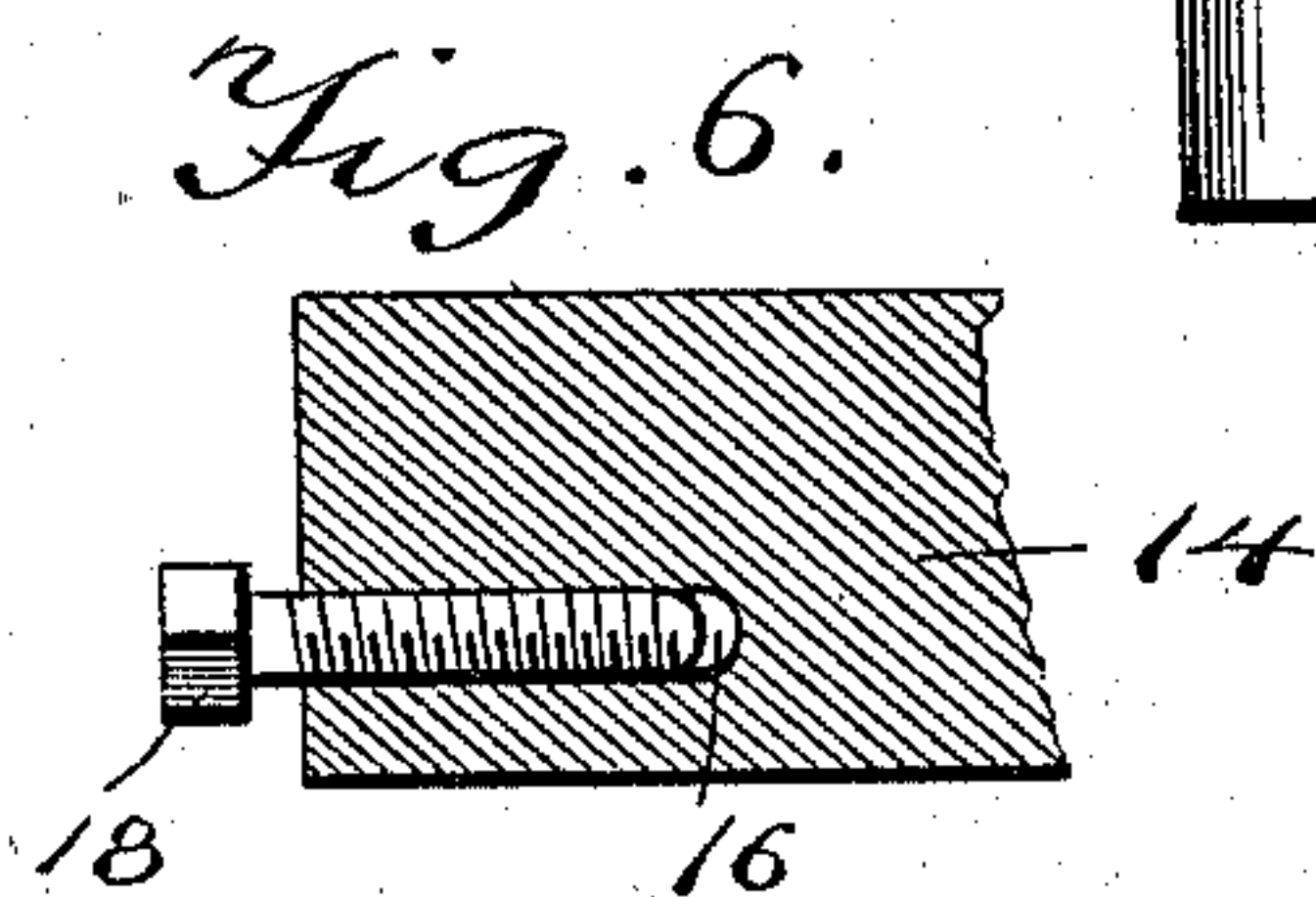
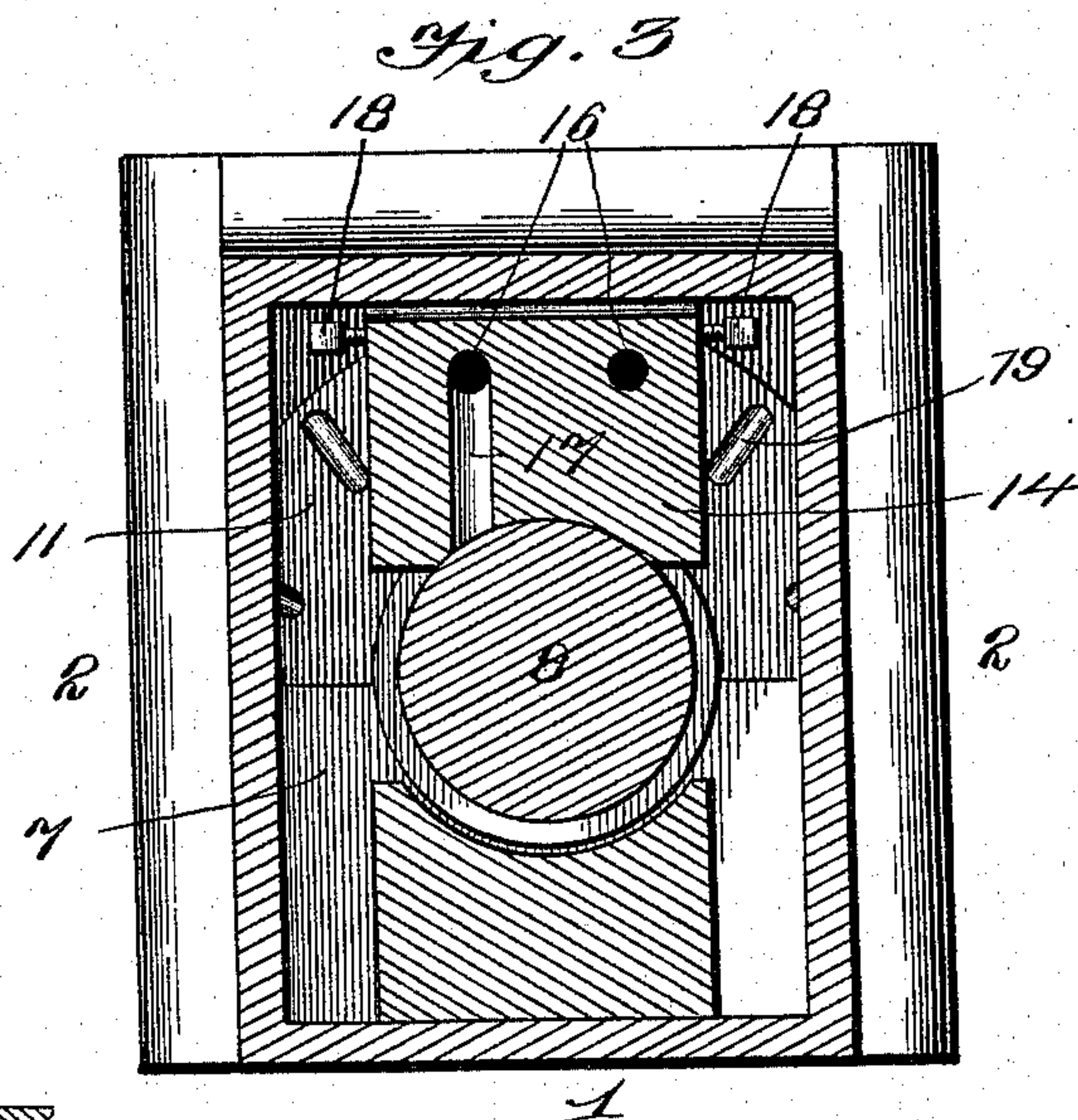
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# UNITED STATES PATENT OFFICE.

JOSEPH L. MARTIN, OF DAWSON, PENNSYLVANIA.

## JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 571,490, dated November 17, 1896.

Application filed February 29, 1896. Serial No. 581,320. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH L. MARTIN, a citizen of the United States, residing at Dawson, in the county of Fayette and State of Pennsylvania, have invented a new and useful Journal-Box, of which the following is a specification.

This invention relates to an improvement in journal-boxes; and the object in view is to provide a journal-box in which an increased supply of oil may be carried and to employ in connection therewith a novel form of brass having covered conduits or passages for the oil, and also a rotating disk adapted to convey the oil from the reservoir to such passages in the brass and cause the same to be fed to the journal at the point where most needed.

The chief aim of the invention is to provide a continuous circulation of the oil while the journal is in motion, to regulate the flow of the oil according to the size of the journal and other requirements, and to automatically arrest such circulation upon the stoppage of the journal.

Other objects and advantages of the invention will appear in the course of the ensuing description.

The invention consists in an improved journal-box embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims hereto appended.

In the accompanying drawings, Figure 1 is a perspective view of the improved journal-box with the lid thrown up. Fig. 2 is a vertical longitudinal section through the same. Fig. 3 is a vertical transverse section of the same. Fig. 4 is an enlarged detail perspective view of the brass. Fig. 5 is a longitudinal section through the same. Fig. 6 is a detail cross-section through one side of the brass, showing the means for regulating the flow of oil to the journal.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates the improved journal-box, which is offset at each side at the points 2 to form an expanded front portion 3, constituting the

oil-reservoir. This journal-box is preferably cast in a single piece, and an integral wall 4 is provided at the front, the same extending slightly less than half the height thereof, the remainder of the front of the box being closed by a lid 5, preferably hinged at its upper edge to the top of the journal-box, the swinging edge of the lid contacting with the upper edge of the front wall 4 and being held in place by means of a button or other fastening 6. The lid may, however, be attached in any convenient or approved manner, as such connection forms no part of the present invention.

Within the journal-box and at a point preferably coincident with the offsets 2 above referred to is arranged a transverse vertical partition 7, which reaches in height to the proximal center of the journal, (indicated at 8.) The space between the front wall 4 and the partition 7 constitutes the oil chamber or reservoir of the journal-box, and, as will be seen, is at the front end of the box, where it is in the most convenient place to be inspected and replenished with oil when needed.

In order to adapt the present improvement to the journal of a car-axle already in use, a central socket is formed in the end of the journal, and in such socket is inserted permanently a shank 9, which is square or irregular in cross-section. The upper edge of the partition 7 is notched, as at 10, to admit of said shank, the latter extending over the oil-reservoir and reaching to within a short distance of the front of the journal-box. Upon this shank is slidably mounted a disk 11, having an irregular central aperture fitting loosely the shank 9, whereby the disk is adapted to rotate with the shank and journal, and the disk is further provided with a laterally-extended hub, by which it obtains a broad bearing upon the shank 9 and is prevented from tilting with relation thereto. The extremity of the shank 9 is formed with a perforation, through which is inserted a cotter-pin 12, and between this cotter-pin and the exterior face of the disk 11 is interposed a spiral spring 13, which exerts its tension to hold the disk in close contact with the advance edge of the brass, (indicated at 14.)

The brass 14 is hollowed out on its under surface to fit the journal and is provided at its upper portion with a forward offset 15, ex-



tending beyond the end of the journal 8 and over the oil-reservoir. Oil passages or conduits 16 are formed in the upper portion of the brass, the same extending longitudinally 5 of the brass and opening out at the front end of the extension 15, as clearly shown. At their rear ends the passages 16 communicate with other passages 17, disposed radially to the journal and extending through the brass 10 and opening out at the lower concaved side thereof, whereby the oil passing through said passages is conveyed directly to the journal.

In operation a supply of oil is placed in the reservoir at the front of the box, and upon the 15 rotation of the axle-journal the disk 11 rotates in the oil and takes up the same and wipes it off against the front edge of the brass. The oil that is thus carried to the brass passes in through the longitudinal passages 16 and 20 down through the radial passages 17 to the journal, lubricating the latter upon its upper side, upon which a proportionate part of the weight of the car is placed.

The disk 11 is always held by spring-pressure 25 in close contact with the brass and thereby closes the outer or front ends of the oil-passages against the admission of foreign matter, which is scraped off against the edges of the brass. Thus nothing but clean oil is supplied 30 to the journal, and it is obvious that this will effect a reduction of wear and a saving in the number of brasses required. By dispensing with the necessity for waste in connection with the oil much less time and labor are required 35 in the care of the journal-boxes, and there is a consequent reduction in the running expenses of the road. The flow of the oil through the passages 16 in the brass is regulated by means of screw-plugs 18, which are inserted 40 through threaded openings in the brass and serve by their inner ends to obstruct or partially close the said passages. By adjusting these plugs the amount of oil supplied to the journal may be readily governed. When the 45 journal ceases revolving it will be apparent that the disk will also stop and the oil will thus be no longer supplied to the brass and journal. To enable the disk 11 to take up a greater quantity of oil, recesses or pockets 19 50 are formed in the inner surface thereof, and

such pockets are arranged in a circular series, so that each will pass by and deposit oil in the passages 16 of the brass.

Parts of the journal-box not hereinabove particularly described may be constructed 55 and arranged in any desired manner, and various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention. 60

Having thus described the invention, what is claimed as new is—

1. In a journal-box, a transverse imperforate partition located in front of the end of 65 the journal and forming with one end of the box an oil-reservoir arranged entirely beyond the end of the journal, in combination with an oil-carrying disk connected to the journal and rotating within the reservoir, and a brass 70 overhanging the reservoir and having its advance end in contact with the rotating disk and provided with inclosed oil-passages extending from the front end of the brass to the bearing-surface thereof, and screw-plugs 75 movable at substantially right angles to said passages and having their inner ends projecting therein, the said plugs being made adjustable for the purpose of regulating the flow of oil to the journal, substantially as described. 80

2. A journal-box provided intermediate its ends with an imperforate cross-partition acting as a stop for the end of the journal and also forming with one end of the box an oil- 85 reservoir located entirely beyond the end of the journal, in combination with a brass having an overhanging portion reaching beyond the end of the journal and extending over said partition, and an oil-conducting disk 90 mounted on the end of the journal and contacting with the brass, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 95 the presence of two witnesses.

JOSEPH L. MARTIN.

Witnesses:

A. VAN HORN,  
JACKSON ANDERSON.