

No. 841,562.

PATENTED JAN. 15, 1907.

L. B. NELSON.
PLUMB LEVEL.

APPLICATION FILED MAY 9, 1906.

Fig. 1.

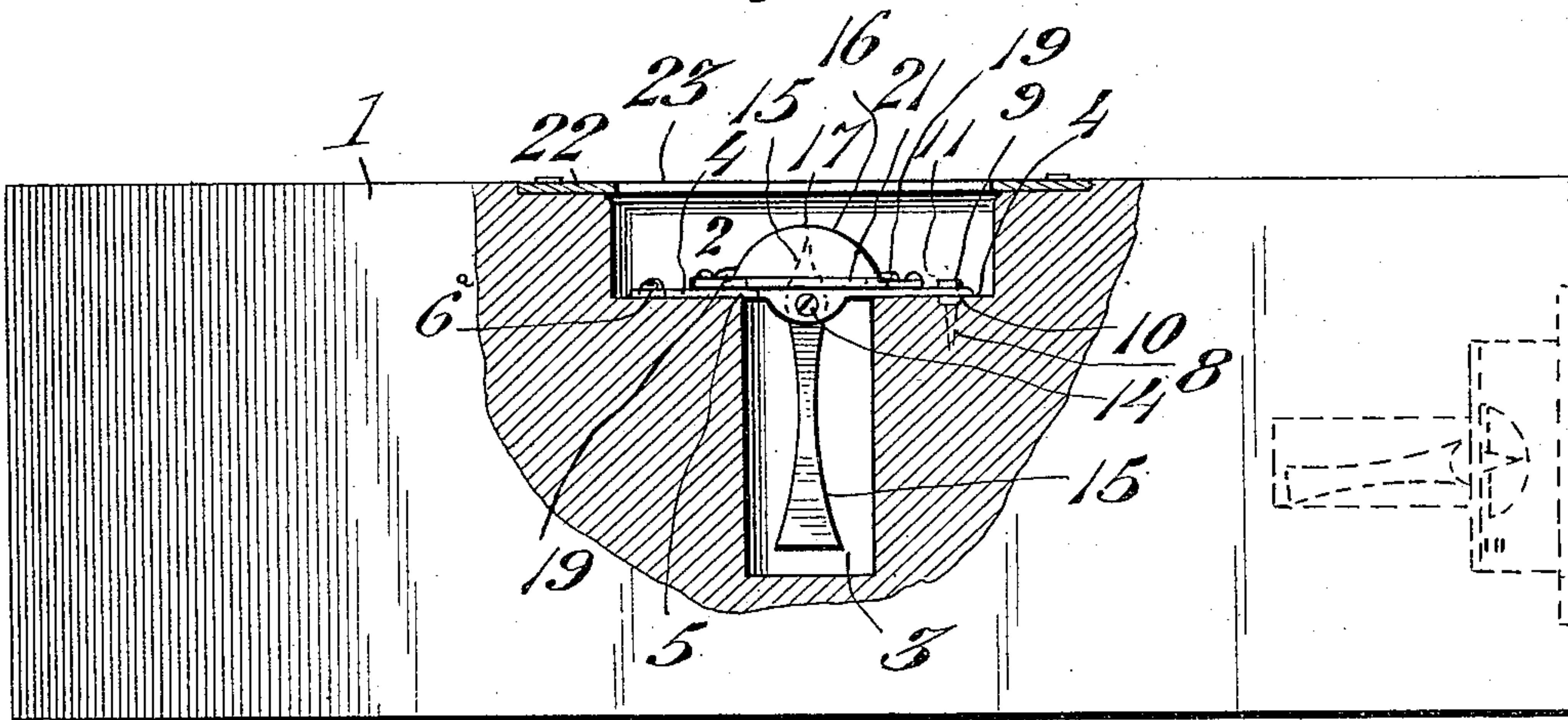


Fig. 2.

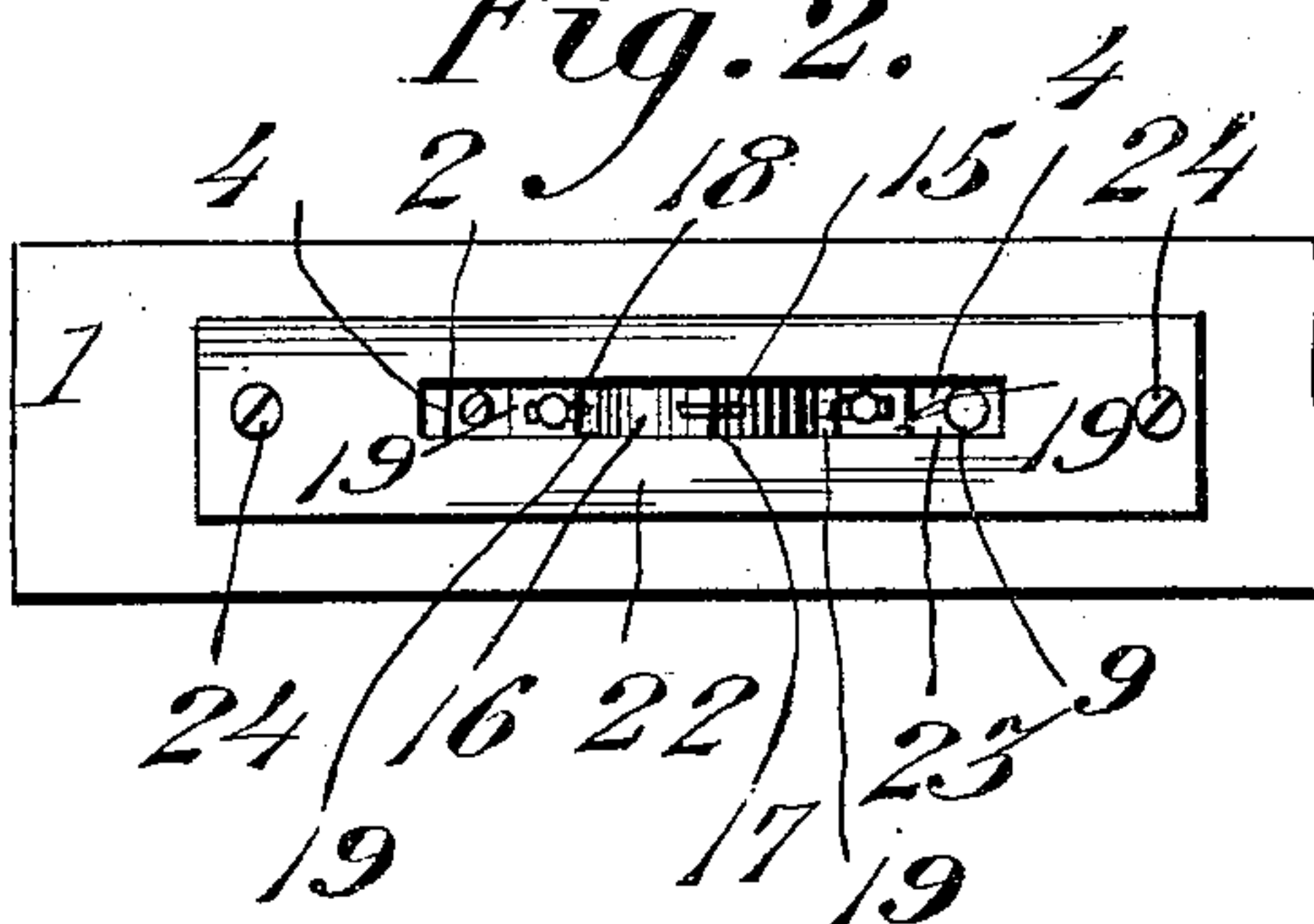


Fig. 3.

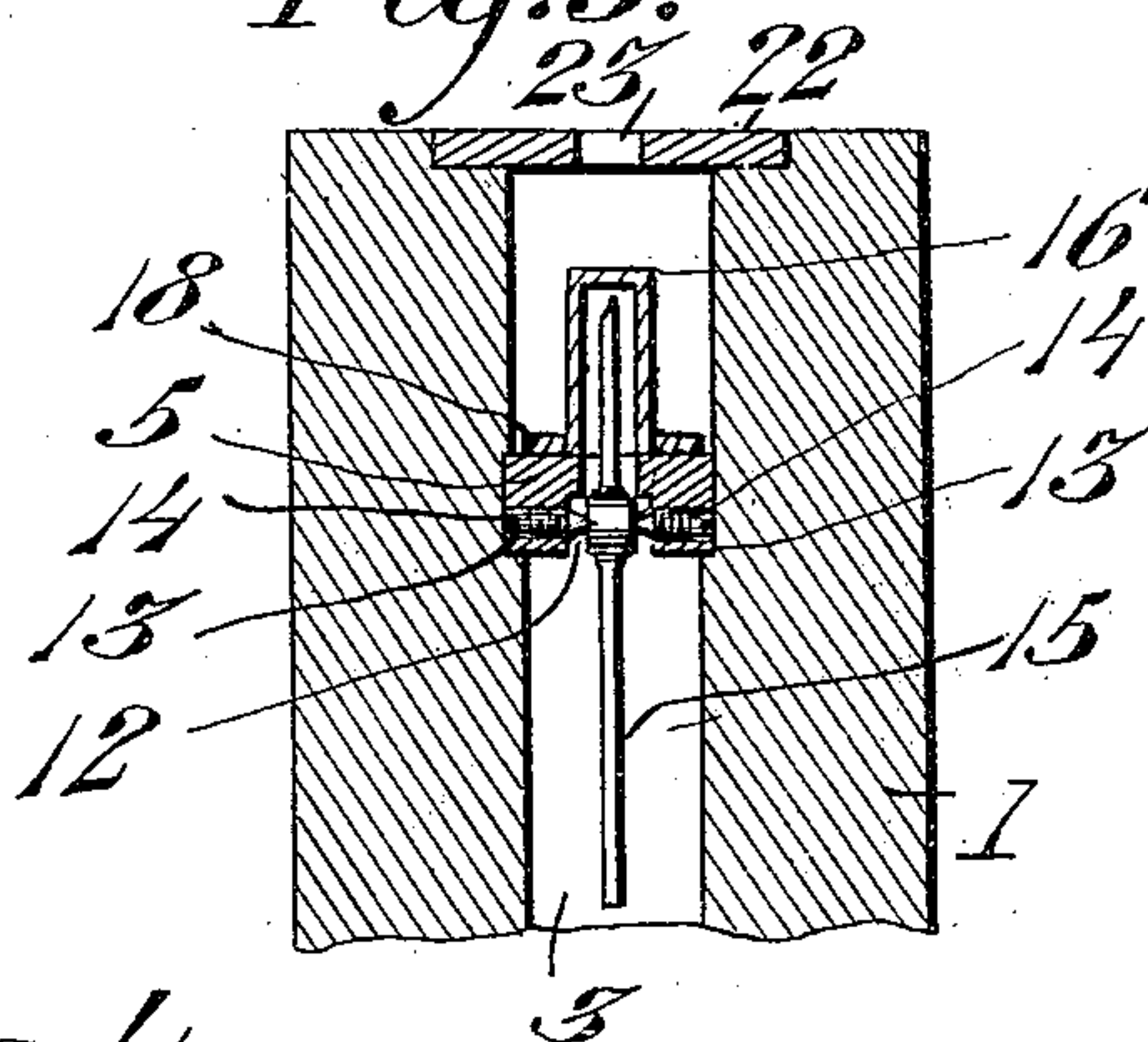


Fig. 6.

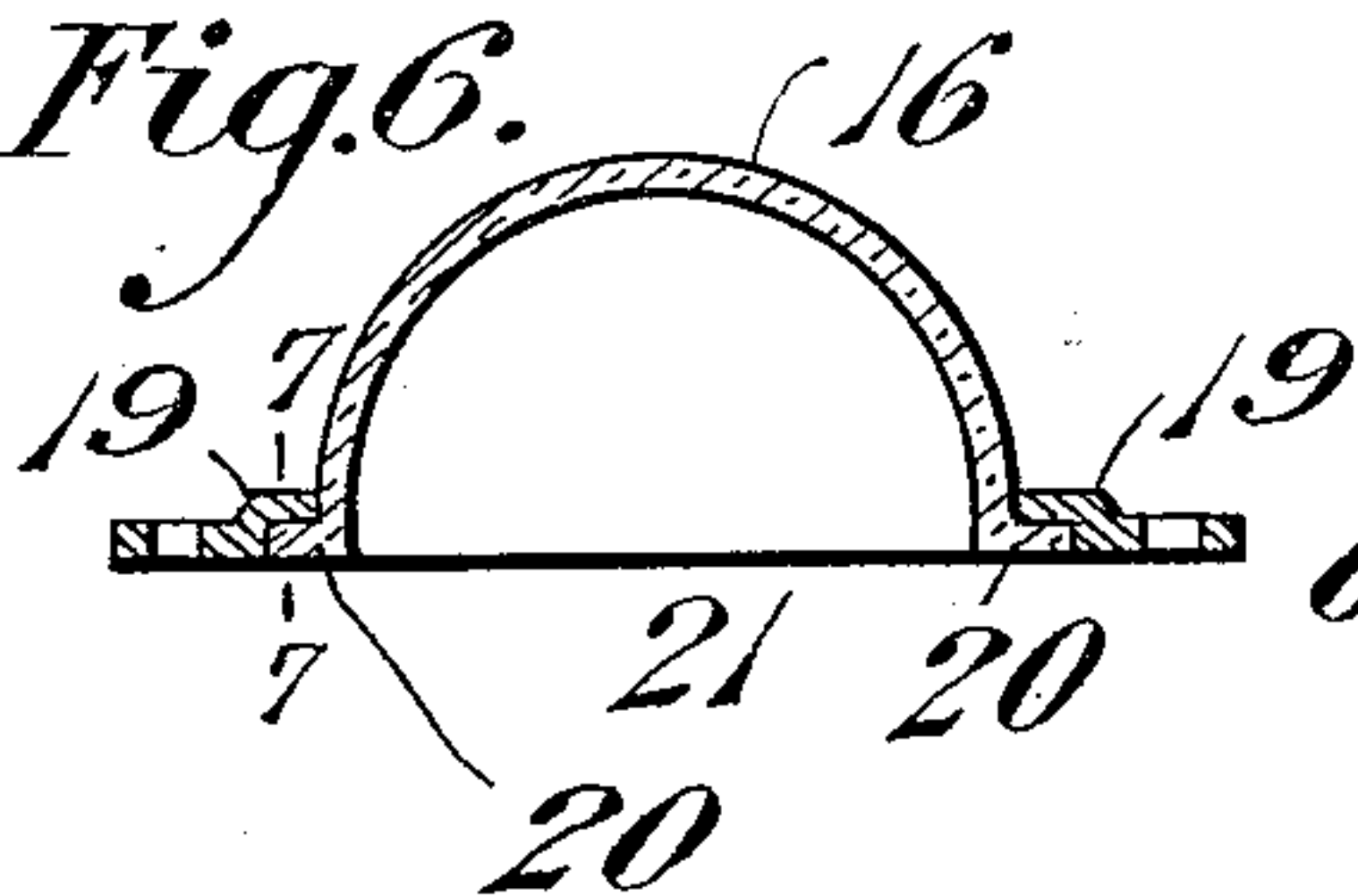


Fig. 4.

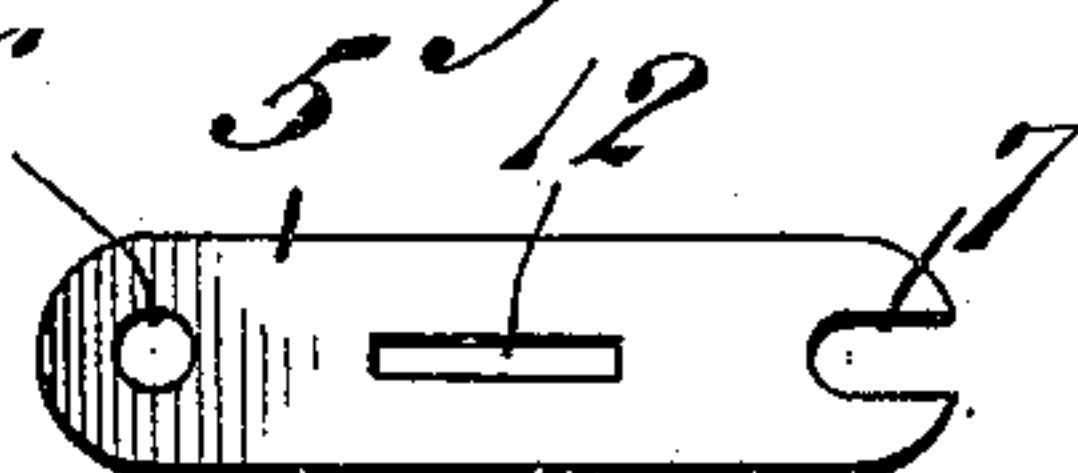


Fig. 7.

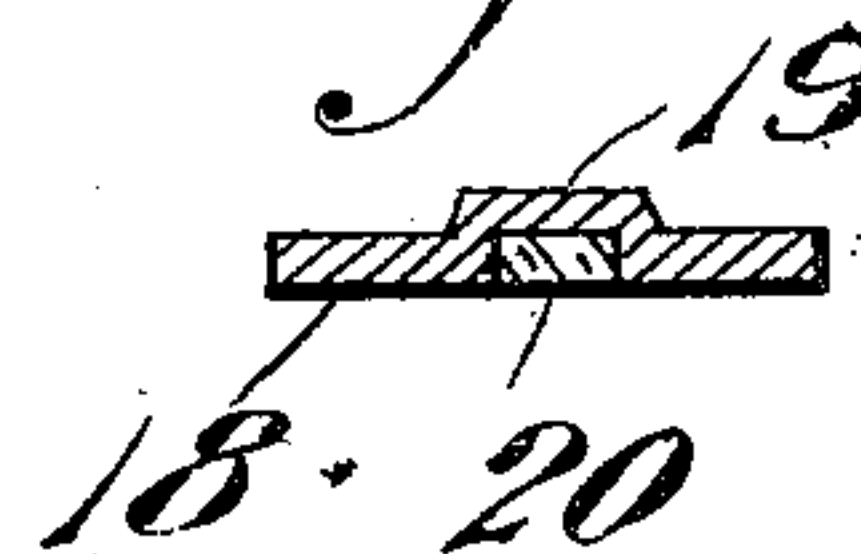
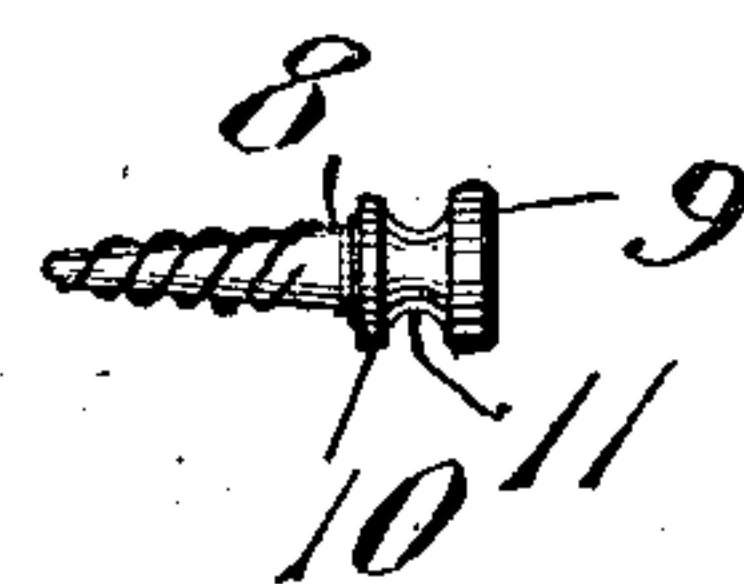


Fig. 5.



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UNITED STATES PATENT OFFICE.

LEWIS B. NELSON, OF CLEARMONT, MISSOURI.

PLUMB-LEVEL.

No. 841,562.

Specification of Letters Patent.

Patented Jan. 15, 1907.

Application filed May 9, 1906. Serial No. 315,910.

To all whom it may concern:

Be it known that I, LEWIS B. NELSON, a citizen of the United States of America, residing at Clearmont, in the county of Nodaway and State of Missouri, have invented new and useful Improvements in Plumb-Levels, of which the following is a specification.

This invention relates to improvements in 10 plumb-levels, the object of the invention being to provide an instrument of this character for general use which embodies a novel construction of plumbing or leveling device and means for mounting the same in the 15 stock so as to effectually prevent injury thereto.

The invention consists of the features of construction, combination, and arrangement of parts, hereinafter fully described 20 and claimed, and is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a plumb-level constructed in accordance with the invention, a portion of the stock being broken 25 away in longitudinal section to show the leveling device. Fig. 2 is a top plan view of the same. Fig. 3 is a central vertical transverse section. Fig. 4 is a top plan view of the hanger-plate. Fig. 5 is a detail view of the 30 securing and truing screw thereof. Fig. 6 is a longitudinal section through the hood and its holding-plate. Fig. 7 is a cross-section of the same on line 7 7 of Fig. 6.

Referring to the drawings, the numeral 1 35 designates the body or stock of the instrument, which may be made of wood, metal, or any other suitable material. This stock is recessed or mortised in one of its side edges to form a rectangular longitudinal socket or 40 chamber 2 and an underlying vertical socket or chamber 3, communicating at its upper end with said socket 2, the said socket 3 being of less width or length longitudinally than the socket 2 to provide supporting 45 seats or shoulders 4 at the point of junction of said sockets.

A hanger-plate 5 rests upon the shoulders 4 and extends across the mouth of the socket 3, said plate being provided at one end with 50 an opening 6 for the passage of a screw or other ordinary fastening 6^a to secure it to one of the shoulders, while the other end of the plate is formed with a slot 7, opening through the edge thereof and adapted for 55 the reception of a combined fastening and

truing screw 8. The screw 8 enters the other shoulder 4 and is provided with operating and supporting heads 9 and 10, arranged to form an intervening groove and neck to receive and engage the slotted end 60 7, by which said end of the plate is connected with the screw, so that by manipulating the latter the plate may be adjusted to a slight extent to true it up with the stock. It will be understood that the hanger-blade 5 is 65 free to have slight vertical pivotal movement on the screw 6^a and that consequently it may be vertically adjusted to compensate for any inaccuracy in the level of the shoulders 4 and adapt the plate to be set to bring 70 the pointer to a true vertical position when the stock lies on a true horizontal position.

The central portion of the plate 5 is formed with a longitudinal slot 12 and is provided on opposite sides with bearing-lugs 75 13, having screw-threaded sockets to receive threaded bearing-pins 14, provided with conical or pointed inner ends, the outer ends of the screws being nicked to enable them to be conveniently adjusted in and out by a 80 screw-driver or other suitable tool. A pointer 15 projects through and swings in the slot 12 and is carried by a weighted arm or pendulum 15, arranged in the socket 3, the said arm being provided with conical 85 bearing-sockets to receive the conical inner ends of the pins 14, whereby the pendulum-pointer is mounted to swing thereon.

Arranged above the pointer is a hood 16, formed of glass or other suitable trans- 90 parent material, and provided at its apex or highest central point with a gage-mark 17, with which the pointer is adapted to register when the stock is in level position. This hood covers and incloses the pointer and 95 slot 12 and prevents access of dust and dirt to the bearings and socket 3. This hood is retained in position by a holding frame or plate 18, perforated at its ends for the passage of fastenings to secure it to the plate 5, said 100 holding frame or plate being formed with keepers 19 for the reception of lugs or projections 20 on the hood, whereby the latter is detachably held in place. The holding frame or plate is longitudinally slotted, as at 105 21, in line with the slot 12 for the passage of the pointer 15 into the hood. The socket 2 is closed at top by a cover-plate 22, provided with a longitudinal sight-slot 23, said cover-plate being countersunk in the side edge of 110

the stock to lie flush with the face thereof and detachably secured to the same by screws 24.

It will be seen from the foregoing description, from which the operation of the device will be readily understood by those versed in the art, that my invention provides a simple, convenient, and effective construction of instrument in which the leveling device is mounted in such manner as to house it from injury and enable it to be conveniently adjusted to compensate for wear as occasion requires.

For the purpose of adapting the device for use as a plumb the construction and arrangement of parts hereinbefore described is duplicated at one end of the stock, as indicated by dotted lines in Fig. 1.

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

1. In a device of the character described, the combination of a socket, a frame-plate arranged therein, said plate being provided with a slot, a pendulum-pointer pivoted to the plate and projecting upward through said slot, a transparent hood detachably secured to the plate and inclosing the pointer, and a plate extending across the top of the socket through which the hood and pointer may be observed.

2. In a device of the character described, the combination of a stock having a socket, a slotted frame-plate arranged therein, a pendulum-pointer pivoted to said plate and projecting through the slot therein, a transparent hood arranged above said slot and inclosing the pointer, and a holder detachably securing the hood to the frame-plate.

3. In a device of the character described, the combination of a stock having a socket, a plate extending across the top of the socket and having a sight-opening, a frame-plate arranged horizontally in the socket and having a slot, a pendulum-pointer pivoted to said plate and projecting upward through said slot, and a transparent hood detachably secured to the plate and inclosing the pointer

and having a gage-mark, said hood and pointer being visible through said sight-opening.

4. In a device of the character described, the combination of a stock having a socket, a frame-plate arranged therein and provided with a slot and threaded bearing-sockets on opposite sides thereof, bearing-screws arranged in said sockets and having pointed inner ends, a pendulum-pointer projecting through the slot in the frame-plate and having bearing-sockets receiving the pointed ends of the screws, and a transparent gage-hood detachably secured to the frame-plate and receiving and cooperating with the pointer.

5. In a device of the character described, the combination of a stock having upper and lower sockets and shoulders at the point of intersection thereof, a slotted supporting-plate secured at one end to one of said shoulders and having a slot at its opposite end, a transparent hood carried by the plate and having a gage-mark, a pendulum-pointer projecting through the central slot in the plate and into the hood and pivoted to the plate, and a securing and truing screw engaging the slot in the end of the plate and adjustably fastening the same to the other shoulder.

6. In a device of the character described, the combination of a stock having a socket, a frame-plate secured therein and having a slot, a pendulum-pointer pivoted to the plate and projecting upward through the slot, a holding-plate detachably secured to the frame-plate, and a transparent hood detachably connected with the holding-plate and receiving the pointer and provided with a gage-mark.

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

LEWIS B. NELSON.

Witnesses:

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