

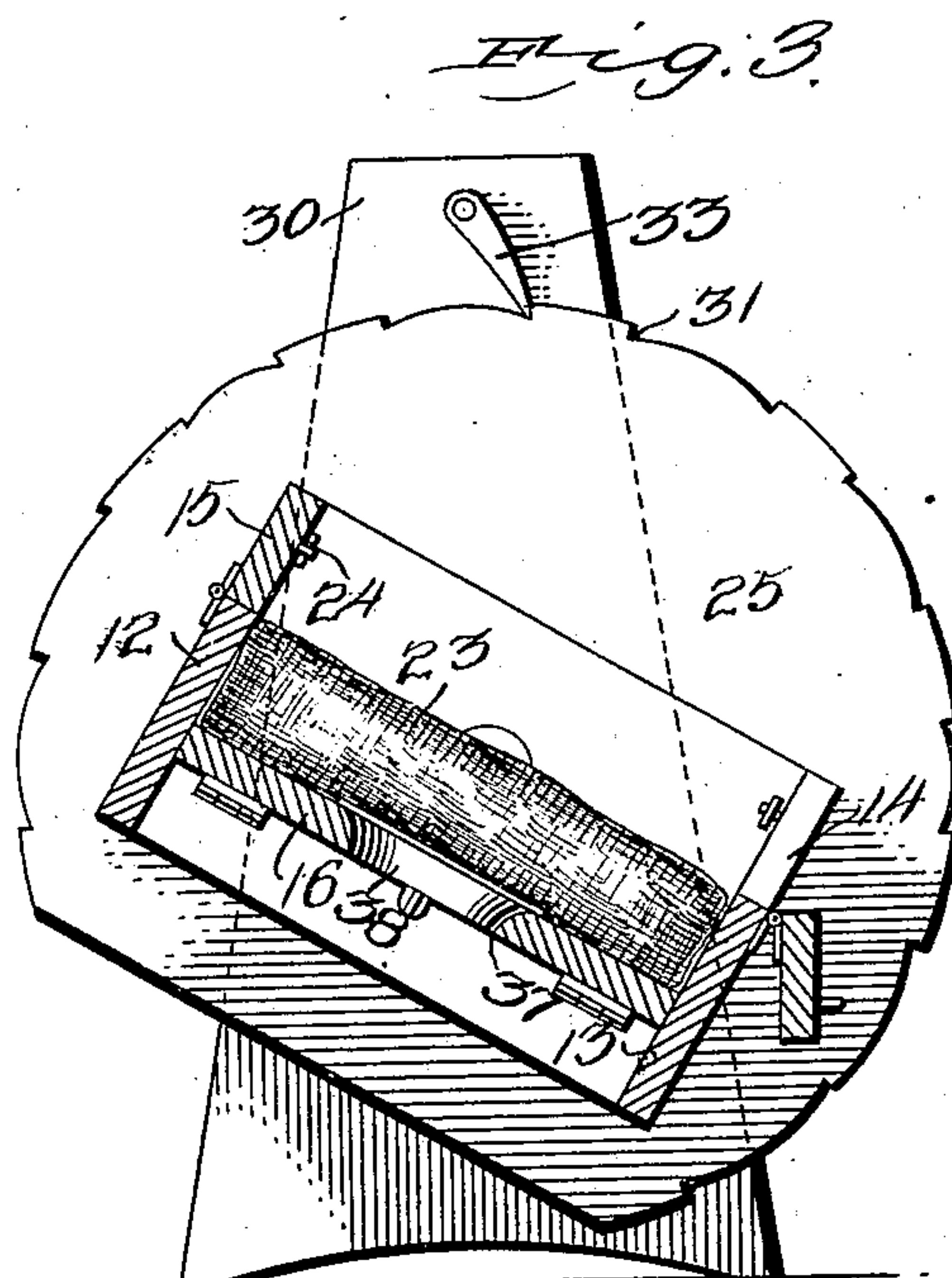
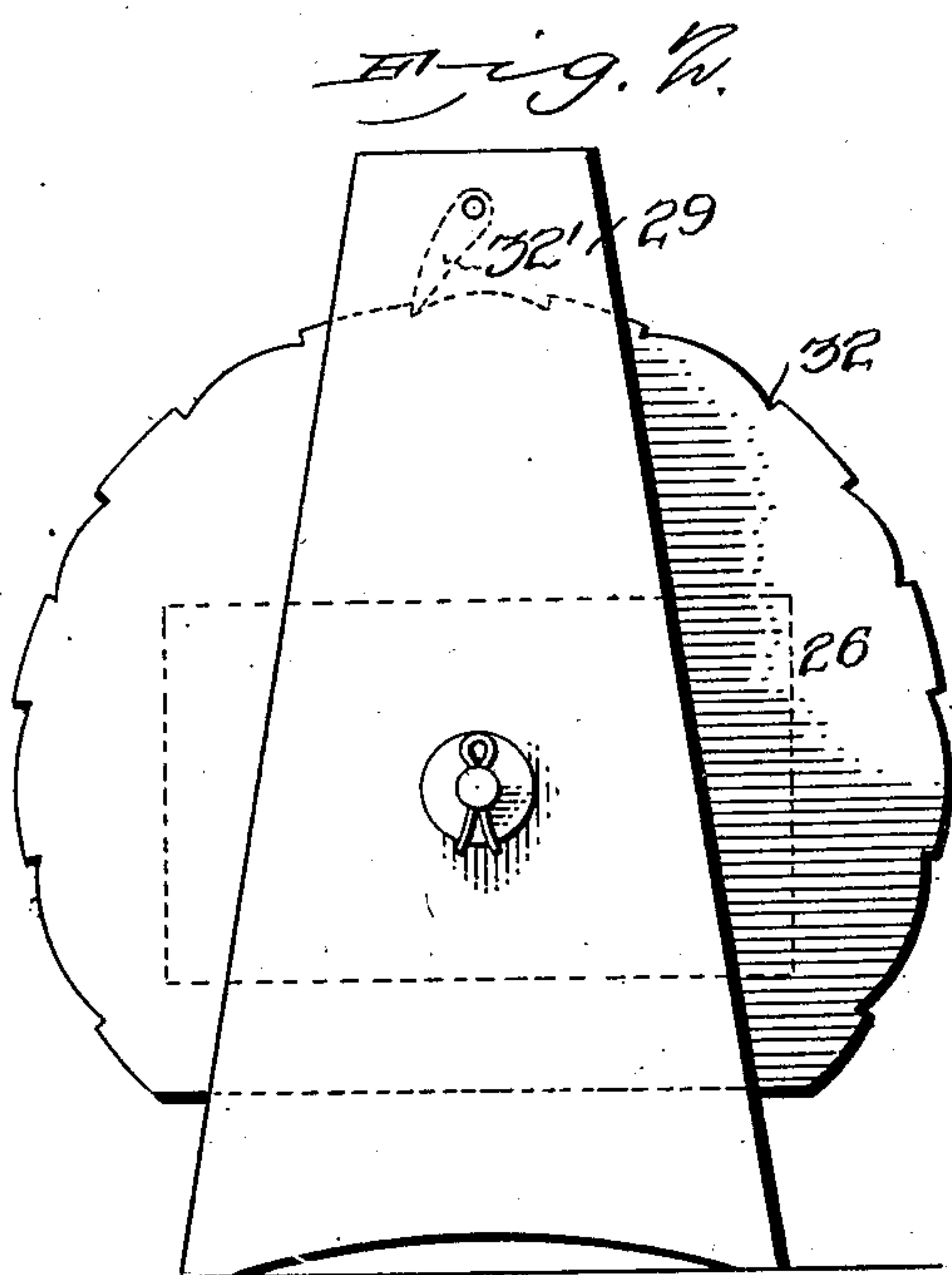
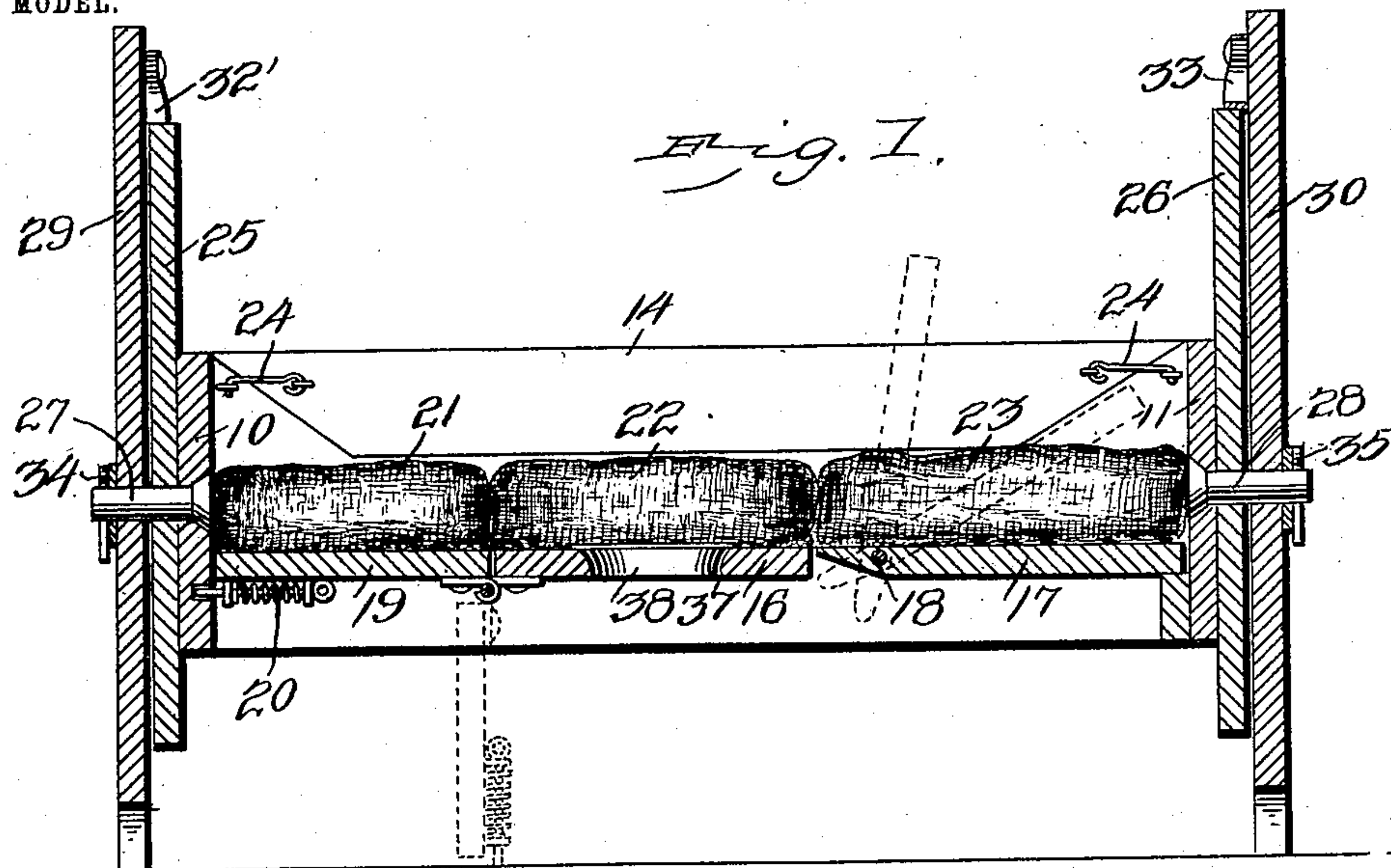
No. 728,865.

PATENTED MAY 26, 1903.

J. CHEETHAM.  
INVALID BED.

APPLICATION FILED JUNE 25, 1902.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOSEPH CHEETHAM, OF ESBON, KANSAS.

## INVALID-BED.

SPECIFICATION forming part of Letters Patent No. 728,865, dated May 26, 1903.

Application filed June 25, 1902. Serial No. 113,135. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH CHEETHAM, a citizen of the United States, residing at Esbon, in the county of Jewell and State of Kansas, have invented a new and useful Invalid-Bed, of which the following is a specification.

This invention relates to beds for the use of invalids or persons suffering from wounds, broken limbs, and other injuries, and has for its object the construction of a bed capable of adjustment in various directions and so constructed that the patient may be placed in a recumbent, reclining, or sitting position and also to be turned upon his side without disturbing the patient or removing him from the bed.

Another object of the invention is the production of a bed wherein an invalid or an injured person may be cared for with the minimum of effort and inconvenience to both patient and the nurse.

The invention consists in certain novel features of construction, as hereinafter specified and fully set forth in the claims.

In the drawings illustrative of the invention, Figure 1 is a longitudinal sectional elevation. Fig. 2 is an end elevation. Fig. 3 is a transverse section with the bed tilted up at an incline.

The bed proper may be made of any suitable size and will be formed with the ends 10 11 and sides 12 13, the latter provided with hinged upper portions 14 15, adapted to be folded down, as indicated at the right of Fig. 3, to reduce the height of the sides of the bed for the convenience of the nurse in caring for the patient and which may also be found convenient when placing the patient upon the bed.

The bottom of the bed is formed in three sections—the central stationary section 16, the head-section 17, hinged at the end adjacent to the section 16, as indicated at 18, to enable the head-section to be adjusted at an incline, as shown by dotted lines in Fig. 1, and the foot-section, hinged to the adjacent edge of the central section and adapted to be folded down, as indicated by dotted lines in Fig. 1. The foot-section 19 will be provided with some detaching means, as a spring-bolt 20, by which it may be supported in a horizontal position and readily released when it

is desired to drop it down, as shown. The mattress will likewise be formed in three sections 21 22 23, conforming to and resting upon the three sections 19 16 17, as indicated in Fig. 1. By this means when the three sections composing the bed-bottom are in horizontal alinement the patient will be supported in a recumbent attitude; but if it is desired to support the patient in an inclined position the section 17 may be elevated to any extent, as indicated by dotted lines in Fig. 1, this movement carrying the section 23 of the mattress with it.

If it is desired to support the patient in a sitting posture, the mattress-section 21 is removed and the bolt 20 withdrawn, which will permit the section 19 to drop down, as shown in dotted lines in Fig. 1, and the section 17 tilted up, as likewise shown in Fig. 1, carrying the mattress-section 23 with it. This action transforms the bed-bottom into a chair, the seat being formed by the mattress-section 22 and the back by the elevated mattress-section 23. The movable side sections 14 15 will be secured in position by any suitable means, such as hooks 24, so that they can be readily detached when it is desired to turn the hinged sections downward.

Attached to the ends of the bed portion are two circular frames 25 26, one at each end and each provided with a centrally-projecting stud 27 28, as shown in Fig. 1, these studs projecting in opposite directions from the circular frames 25 26, as shown. The studs 27 28 are arranged about in central alinement with the bed, and the frames 25 26 will be formed concentric with these studs, as shown, so that their peripheries are equidistant from the studs. The lower parts of the frames 25 26 are formed in horizontal alinement with the bed-bottom and at some distance below it, so that, if required, the frames may be employed as supports for the bed.

At the ends of the bed are arranged vertical frames 29 30, the studs 27 28 engaging the frames centrally, as shown, so that the bed and the frames 25 26 are supported upon the standard-frames by the studs only. By this means the bed and the frames 25 26 are supported upon the studs 27 28, as trunnions or centers, rotatively. By this means the bed can be turned upon the studs as centers,



as indicated in Fig. 3. The rims of the frames 25 26 are provided with a series of spaced notches 31 32, respectively, forming reversely-disposed ratchets, and each of the standard-frames 29 30 will be provided with a pawl 32 33, the pawls set in reversed positions, so that they will act in opposite directions upon the frames to hold the bed stationary at any point desired, one pawl acting against the other one, as will be understood. By this means the bed may be tilted sidewise or rotatably adjusted upon its studs 27 28 to any desired extent and locked in that position by the reversely-acting pawls.

The studs 27 28 will be secured in place by any suitable easily-detachable means, such as collets 34 35, so that the standards 29 30 may be easily detached, if required.

Any suitable supporting means may be attached to the section 17 to retain it at any desired inclination. By this simple means the patient may be readily placed in any desired position, either recumbent, inclined to any desired extent, or placed in a sitting posture, as required, and without disturbing the patient or removing him from the bed. Then if it is required to turn the patient upon his side this can readily be done, as before stated, by tilting the bed, as indicated in Fig. 3.

As will be noted in Figs. 2 and 3, the pawls 32 33 are reversible and operate entirely by gravity, while the ratchets or notches 31 are likewise reversed in position or alternately disposed, as shown in the same figures, so that the pawls may be alternately engaged with the notches. By this means the bed may be more firmly supported in its inclined position, and thus sustain the patient more steadily and prevent any tendency to unequal movement or jarring motion.

In operating the device by tilting it upon its circular ends 25 26 to secure the best results two persons will be required to handle it, one at each end, each holding one of the ends 25 26 firmly and turning them slowly and steadily and noting that the pawls 32 33 properly engage the notches 31 32 and prevent the bed from moving beyond the required point.

The standards 29 30 may be made in any fanciful or bracing form and ornamented in any desired manner, and the segmental ends 25 26 may be likewise formed in any desired manner and may be formed of open frames to secure lightness and strength.

The whole device may be formed of metal

or of wood or a combination of wood and metal, as may be preferred.

The foldable sides 14 15 are an important feature of the invention, as before mentioned, and coact with the segmental ends 25 26 and the standards 29 30 when the bed is tilted, as shown in Fig. 3, as they enable the patient to be very easily and carefully transferred from the bed to a stretcher or from a stretcher to the bed with the least possible disturbance of the patient, as the bed can under those circumstances be tilted down, as shown in Fig. 3, and the side 14, which for the time being is downward, detached and folded down to bring the upper line of the mattress substantially in transverse alinement with the side of the bed. By this simple means the work of caring for the patient is greatly lessened and the comfort of the patient materially increased.

The stationary portion 16 of the bed-bottom will be provided with a commode-aperture 37, filled when not in use by a removable plug 38. In using this portion of the device the central portion 22 of the mattress and the plug 38 will be removed while the patient is turned on his side, the commode utilized, the plug and mattress restored, and the patient returned to his former position.

Having thus described my invention, what I claim is—

1. In an invalid's bed, a bed-frame having segmental ends provided with spaced reversely-disposed peripheral notches, standards pivotally engaging said segmental ends, and a pawl on each standard adapted to movably engage said notches, the pawl on one standard engaging a notch disposed in one direction and the pawl on the other standard engaging a notch disposed in reverse direction to the notch engaged on the other end, whereby said frame is securely locked against accidental movement in either direction.

2. In an invalid's bed, a bed-frame having segmental ends provided with spaced reversely-disposed peripheral notches, standards pivotally engaging said segmental ends, and reversible pawls upon said standards adapted to engage alternate notches, substantially as described.

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

JOSEPH CHEETHAM.

Witnesses:

A. S. POULSON,  
A. J. HUNTSINGER.