G. T. HAGGENMILLER.

ADJUSTABLE TABLE LEG.

APPLICATION FILED OCT. 5, 1920.

1,387,390. Patented Aug. 9, 1921.

Fig. 1.

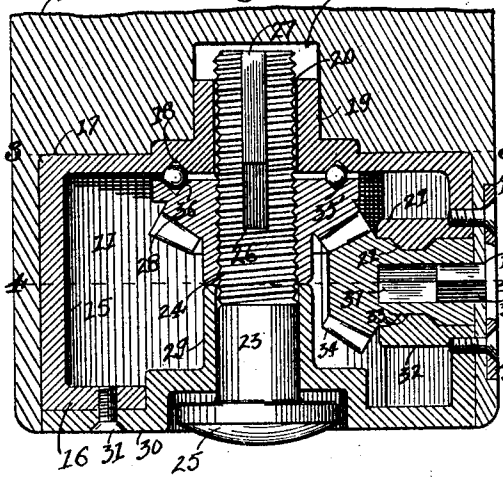


Fig. 2.

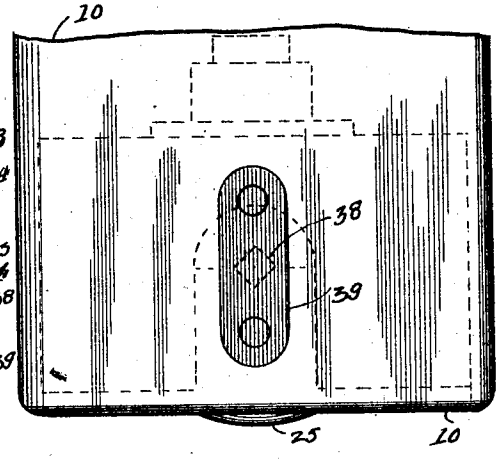


Fig. 3.

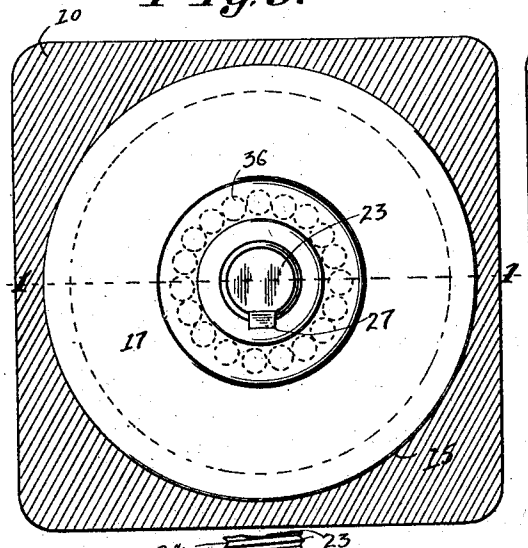
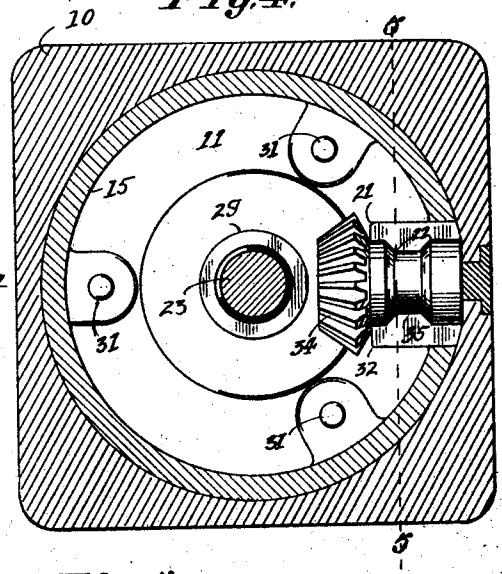


Fig. 4.



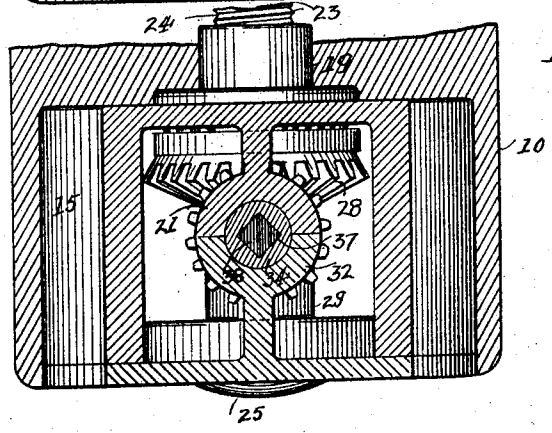


Fig. 6.

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ADJUSTABLE TABLE-LEG.

1,387,390. Specification of Letters Patent. Patented Aug. 9, 1921.

Application filed October 5, 1920. Serial No. 414,817.

To all whom it may concern:

Be it known that I, GEORGE T. HAGGENMILLER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Adjustable Table-Legs, of which the following is a specification.

This invention relates to adjustable legs for tables, and has particular reference to mechanism for lowering or raising the legs of billiard tables for the purpose of leveling the table.

One object of this invention is to provide mechanism which will raise or lower legs of billiard tables and will require but little exertion on the part of the operator to accomplish the adjustment.

Another object is to provide a table leg of the above mentioned character which is simple in construction, compact in the arrangement of its parts, easily adjustable, strong, durable and inexpensive to manufacture.

Other objects and advantages of the invention will be apparent during the course of the following description:

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a vertical sectional view taken on the line 1—1 of Fig. 3,

Fig. 2 is a side elevation of a billiard table leg with the improved mechanism applied thereto,

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1, and

Fig. 5 is a vertical sectional view taken on the line 5—5 of Fig. 4.

In the drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates a table leg of the straight edge type, although it may be tapered if preferred, and has provided therein a main chamber 11. This chamber is located adjacent the lower end thereof and communicates with a centrally located auxiliary chamber 12. In order that access may be had from the exterior to the interior of the chamber 11, an opening 13 is provided in a recess portion 14 of the leg 10.

As shown to advantage in Figs. 1 and 4, a cylindrical casing fits snugly against the wall of the leg within the chamber 11 and incloses the mechanism which operates the table leg for the purpose of adjusting the same. This casing is provided with a side wall 15 which terminates at its bottom in an angular extension 16, while it has in turn formed thereon a top wall 17 which has formed in the bottom thereof a circular groove 18. A circular collar 19, provided with a flat bore 20, is integrally formed with the top wall of the casing and extends within the auxiliary chamber 12.

As shown to advantage in Fig. 5, a portion of the side wall terminates in a semi-circular extension 21 in which there is formed an abutment 22, the purpose of which construction will be hereinafter more fully explained. Disposed within the chamber 11 and extending into the auxiliary chamber 12, is a vertical shaft 23. This shaft is provided with an externally threaded surface 24 which extends longitudinally of the shaft and the greater part of the length thereof. Likewise integrally formed with the shaft 23 at one end thereof, is a head 25, while adjacent the other end thereof there is provided a longitudinal groove 26, which receives a key 27.

For the purpose of holding an internally threaded gear wheel 28 in position, a circular support 29 is mounted within the chamber 12 and encircles the shaft 23. Integrally formed on one side of the support is an angular extension 30 which is suitably attached to the extension 16 of the side wall 15 by fastening elements, preferably set screws 31. The other side of the support terminates in a semi circular extension 32 which is provided with an abutment 33, the two latter elements corresponding to the construction of the extension 21 and the abutment 22. These respective extensions encircle a miter gear 34 which has a circular recess 35 provided therein and receives the abutments 22 and 33. It will be observed that the teeth of the miter gear 34 mesh with the teeth of the gear wheel 28 in order to transmit rotary movement thereto.

The gear wheel 28, which is internally threaded and completely encircles the shaft 23, has formed in the top surface thereof, a circular bearing seat 35 in which rest anti-

friction bearings 36, the purpose of which is evident.

The numeral 37 designates a square shaped bore formed in the miter gear 34 in which is received either a key or the extension 38 on a bearing plate 39, which bearing plate is detachably fastened to the side of the leg and rests within a recess portion 14 of the leg 10.

The operation of the mechanism is as follows: When it is desired to change the length of the leg of the table in order that the body of the table may be raised or lowered at the corners, it is only necessary to detach the bearing plate 39 from the side of the leg 10 and insert a key in the square shaped bore of the miter gear 34. A turning movement in the bore either to the right or to the left, will impart a corresponding movement to the miter gear 34, which meshing with the teeth of the gear wheel 28 will cause the same to rotate. The gear wheel being threaded on the shaft 21 will cause the shaft to be raised or lowered in the auxiliary chamber 12 and thus the proper disposition of the surface of the table can be obtained. When the desired adjustment has been made, the key is extracted and the bearing plate is then fastened to the table leg giving the same a uniform and compact appearance and locks the mechanism in a fixed position.

It is evident that when a billiard table is fitted with this mechanism, the table may be raised or lowered at the corners as the occasion may demand, and the table will be kept perfectly level, the leveling operation being expeditiously accomplished without effort on the part of the operator.

It is to be understood that the form of my invention herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:

The combination with a billiard table leg having a main chamber a centrally located auxiliary chamber and a side opening formed therein, an externally threaded shaft positioned within the main chamber, means for guiding said shaft vertically, an internally threaded gear wheel encircling said shaft, antifriction means disposed between said gear wheel and said casing, a miter gear meshing with said gear wheel and imparting rotary movement to said shaft through the medium of said gear wheel for the purpose of raising or lowering the billiard table leg, and means disposed on the side of the billiard table leg for holding said shaft in a locked position.

In testimony whereof I affix my signature.

GEORGE T. HAGGENMILLER.