No. 809,078. PATENTED JAN. 2, 1906.

C. D. SEYMOUR.

ADJUSTABLE LEG FOR BILLIARD TABLES.

APPLICATION FILED NOV. 18, 1904.

Fig. 1.

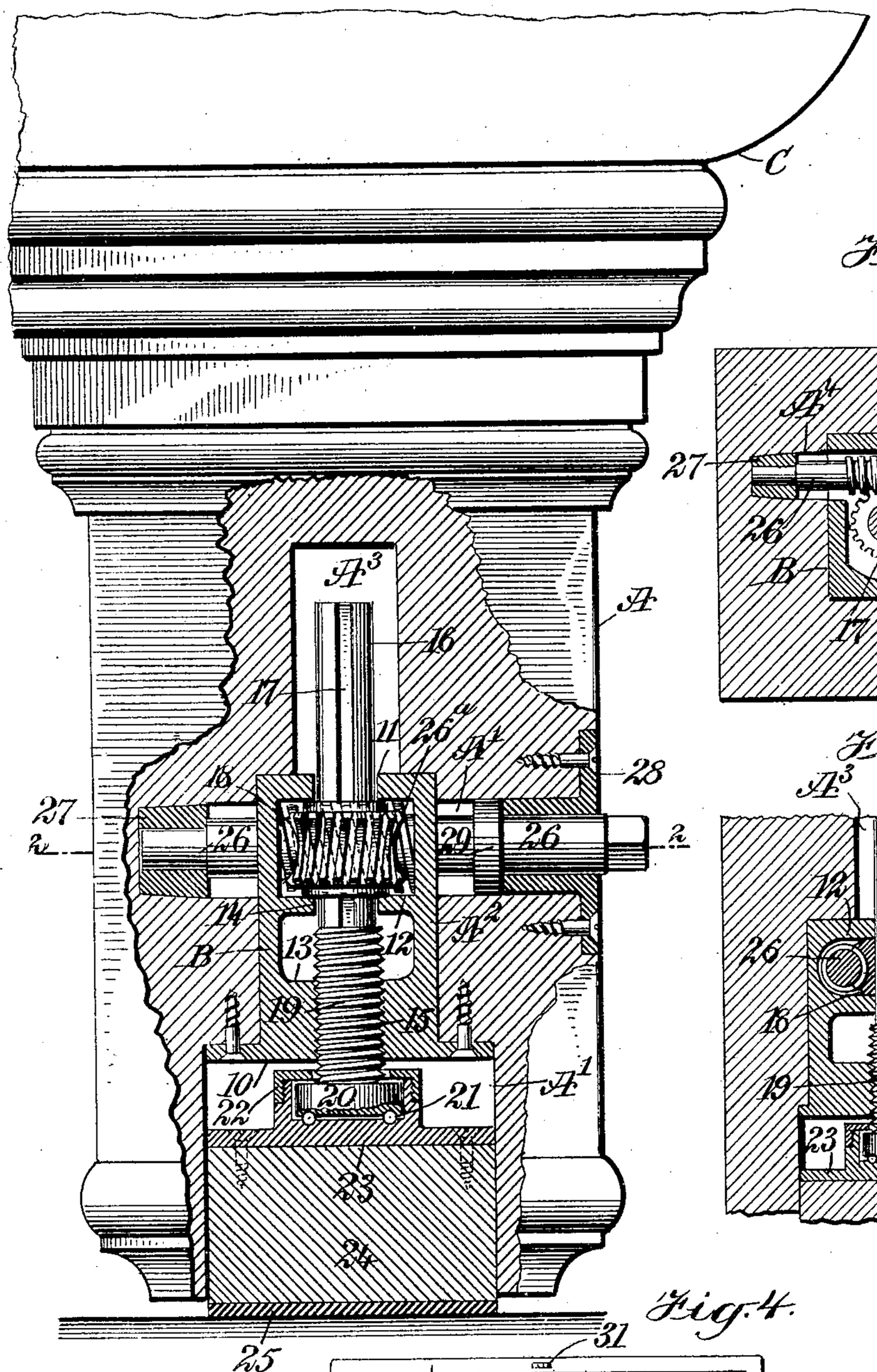


Fig. 2.

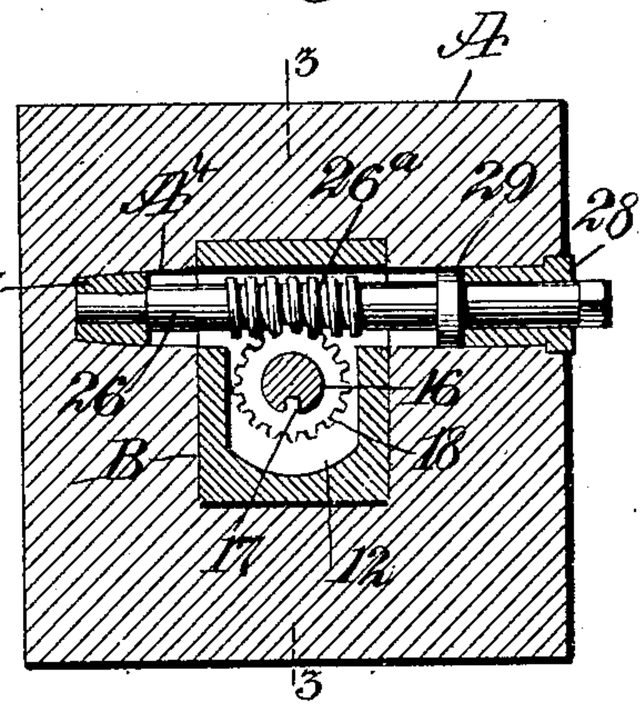
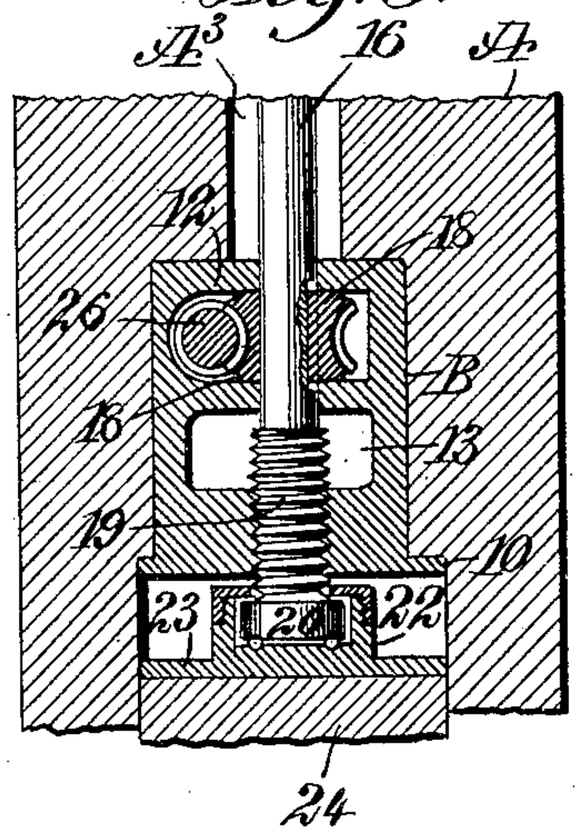


Fig. 3.



WITNESSES:

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ADJUSTABLE LEG FOR BILLIARD-TABLES.

No. 809,078. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed November 18, 1904. Serial No. 233,310.

To all whom it may concern:

Be it known that I, CHARLES DWIGHT SEYMOUR, a citizen of the United States, and a resident of Rensselaer, in the county of Rensselaer and State of New York, have invented a new and Improved Adjustable Leg for Billiard-Tables, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide simple and readily-operated means for raising and lowering the legs of billiard-tables or like articles of furniture for the purpose of leveling the bed or top of the article, it being possible to expeditiously and conveniently bring about such adjustment with comparatively little exertion.

Another object of the invention is to provide a mechanism for the purpose stated which can be applied to the article and exteriorly operated without in any manner detracting from its appearance.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a sectional side elevation of a billiard-table leg and a vertical section through the adjusting device applied to the leg, a portion of the body of the table being shown in side elevation. Fig. 2 is a horizontal section taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a vertical section through a portion of the leg and a portion of the adjusting device, the section being taken at a right angle to the section shown in Fig. 1 and on the line 3 3 of Fig. 2; and Fig. 4 is a plan view of the table, drawn upon a reduced scale.

The table-leg A is provided with a chamber A′ in its bottom portion, the said chamber being centrally located, and a second and smaller chamber A^2 communicates with the chamber A′, while a further reduced chamber A^3 communicates with the chamber A^2.

A block B is fitted in the chamber A^2, and this block is divided into two chambers, an upper chamber 12 and a lower chamber 13, and at the bottom of said block B a flange 10 is formed, and the said flange is fastened in any approved manner to the upper wall of the lower chamber A′. The said block B is provided with an upper opening 11, and an opening 14 is made in the partition dividing the two chambers 12 and 13, as is best shown in Fig. 1. In the lower portion of the block B a vertical bore 15 is produced which is in vertical alinement with the openings 11 and 14, as is also shown in Fig. 1, and the wall of the said lower bore 15 is threaded.

A shaft 16 is mounted to turn in the block B, and the said shaft is provided with a lower exteriorly-threaded surface 19, which engages with the threaded wall of the lower bore 15 in the block B, and the said shaft 16 is also provided with a longitudinal groove 17, as is best shown in Fig. 1, and this groove 17 extends from the top of the shaft to its threaded portion 19. The upper portion of the shaft 16 is located in the upper chamber or compartment A^3 of the leg.

A worm-wheel 18 is mounted on the shaft 16 within the upper chamber 12 of the block B, and this worm-wheel is provided with a feather, which feather travels in the groove 17 of the shaft 16, so that as the worm-wheel is revolved the shaft 16 is turned. The lower end of the shaft 16 extends below the bottom of the block B, and the said lower end of the shaft 16 is provided with a head 20, and this head is mounted to turn on ball or roller bearings 21, located in a casing 22, the bottom 23 of said casing being made of sufficient size and of suitable shape so that the bottom portion 23 of the casing may slide readily in the lower chamber or compartment A′ in the leg A. This enlarged portion 23 of the casing 22 is secured in any suitable or approved manner to a block 24, which block is preferably provided with an elastic cushion 25 at its bottom. The block 24, through the movement of the shaft 16, is raised and lowered, so as to raise and lower the body portion of the table-leg A, and consequently the body C of the table supported by the said leg. Such an adjustment of the shaft 16 and the block 24 is accomplished through the medium of a shaft 26, which is located in a horizontal chamber A^4, formed in the table-leg A, as is shown in Figs. 1 and 2. This shaft 26 is mounted to turn at its inner end in a thimble 27, located at the inner end of the said chamber A^4, and the other end of the shaft 26 turns in a bearing 28, which is fitted in the outer end portion of the said compartment or chamber A^4, as is especially shown in Fig. 1. The outer end of the shaft 26 is rendered polygonal in order that a wrench or a like tool may be applied to turn the said shaft. The shaft 26 is also provided with a collar 29, which collar

when the shaft is in position in the chamber A^4 engages with the inner end of the bearing 28, as is also shown in Fig. 1.

The shaft 26 is provided with a worm-thread 26^a, and the said worm-thread meshes with the worm-wheel 18.

In order that it may be accurately determined when the body C of the table is perfectly level, leveling-tubes 31 are sunken in the rail 30 of the table, as is shown in Fig. 4; but these leveling-tubes 31 instead of being in the upper face of the said rail may be in the side faces thereof or may be otherwise placed, as convenience may suggest.

It is evident that when a billiard-table is fitted with the said adjusting devices for the legs the body of the table may be raised or lowered at the corners, as occasion may demand, and the table be kept perfectly level in a convenient manner, the leveling being expeditiously brought about, and, furthermore, it is obvious that none of the adjusting mechanism is exposed excepting one end of the adjusting-shaft 26.

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

1. The combination with a billiard-table leg having a longitudinal bore in three diameters forming three chambers, and a transverse bore intersecting the intermediate chamber, of a block fitting in the intermediate chamber of the leg and provided at its upper end with a chamber having registering openings in its side walls, said block being also provided with a vertical opening leading out through the ends thereof, the lower end of the opening being threaded, a vertical shaft extending through the vertical opening of the block into the uppermost chamber of the leg, the lower end of the shaft being threaded and terminating in a head, a worm-wheel splined to the shaft in the chamber of the block, a casing mounted to turn on the head of the shaft in the lowermost chamber of the leg, a block fitting in the said lowermost chamber of the leg and secured to the bottom of the casing, and a horizontal shaft mounted in the horizontal bore of the leg and extending through the chamber of the said block, said shaft having a polygonal outer end and provided within the chamber of the block with a worm meshing with the worm-wheel on the vertical shaft, substantially as herein shown and described.

2. The combination with a table-leg having three vertical communicating chambers of different diameters, and a transverse chamber intersecting the intermediate vertical chamber, of a block fitting in the said intermediate vertical chamber of the leg and provided with a chamber having registering openings in its side walls, the said block being also provided with a vertical opening extending through the ends thereof, the lower end of said opening being threaded, a vertical shaft having its lower end threaded and working in the vertical opening of the block with its upper end extending into the uppermost chamber of the leg, a worm-wheel splined to the shaft in the chamber of the block, a block mounted to turn on the lower end of the shaft in the lowermost chamber of the leg, and a horizontal worm-shaft mounted in the transverse chamber of the leg, said worm-shaft extending through the chamber of the said block and having an outer polygonal end, substantially as described.

3. The combination with a table-leg provided with a longitudinal bore, the lower end of which is enlarged, and with a transverse bore intersecting the longitudinal bore, of a block having a chamber with apertured side walls, and a longitudinal opening leading through the ends of the block, the lower end of the opening being threaded, a vertical shaft extending through the longitudinal opening of the block and having its lower end threaded, a worm-wheel mounted on the shaft within the chamber of the block to slide on the shaft but to turn therewith, a block in the lower enlarged end of the bore of the leg and mounted to turn on the lower end of the said shaft, and a worm-shaft mounted in the transverse bore of the leg, said shaft extending through the chamber of said block and having a polygonal outer end.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES DWIGHT SEYMOUR.

Witnesses:
J. FRED. ACKER,
JNO. M. RITTER.