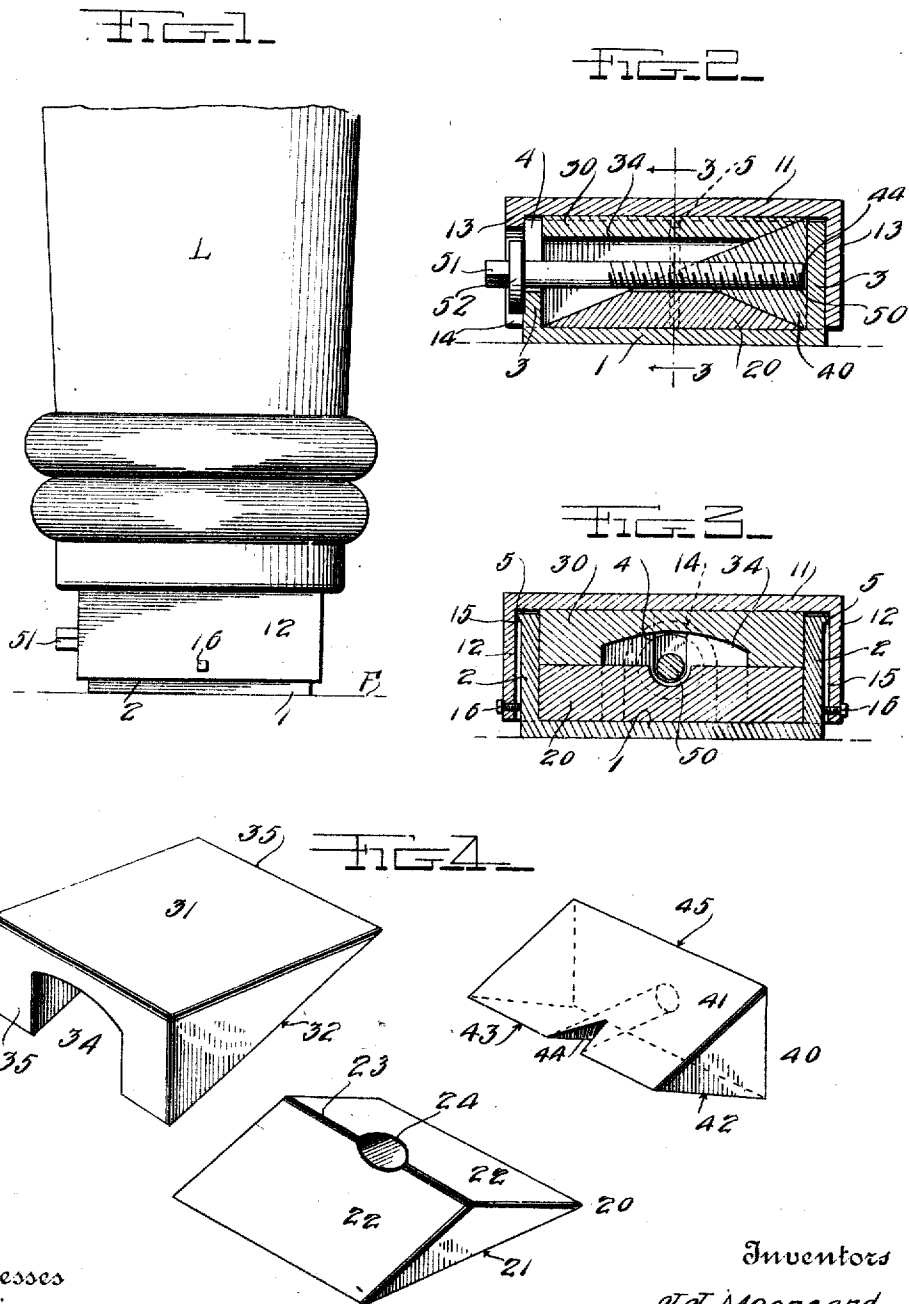


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 POOL AND BILLIARD TABLE LEVELER.  
 APPLICATION FILED JULY 27, 1911.

1,006,974.

Patented Oct. 24, 1911.



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# UNITED STATES PATENT OFFICE.

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1,006,974.

Specification of Letters Patent.

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### *To all whom it may concern:*

Be it known that we, JOHN J. MOORE and PHILLIP C. McMAHON, citizens of the United States, residing at South Charleston, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Pool and Billiard Table Levelers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the class of games and toys, and more especially to pool and billiard tables; and the object of the same is to produce an improved device for elevating the legs of such a table so as to cause its surface to be truly level. This object is accomplished by the specific construction of the leveler hereinafter more fully described and claimed, and as shown in the accompanying drawings wherein—

Figure 1 is an elevation of the lower end of a billiard or other table-leg showing one of our improved levelers beneath it; Fig. 2 is an enlarged transverse section through the leveler proper, and Fig. 3 is a similar section on the line 3—3 of Fig. 2; Fig. 4 is a perspective detail of the various wedge members.

In the drawings the letter L designates the leg of a pool or billiard table such as is usually connected with the table body itself by some screw means so that the leg or support can be lengthened while its lower end remains upon the floor F. Between the leg and floor we propose to insert our improved leveler which is of any desired materials, proportions, and sizes, excepting that by preference it will be made of metal and will have an area of about two and three-quarters inches square and a normal height of about an inch and one quarter although it will be susceptible of elevation to a greater height. In use this device is inserted under the leg of the table and squarely upon the floor, and, after four of them have been put into place and a spirit level laid upon the tabletop, the various levelers can be adjusted so as to bring said top to a true horizontal.

Coming now more particularly to the details of the present invention, we provide outer and inner boxes, or more properly speaking shells, a set of wedges housed therein, and means for adjusting the wedges so

that the outer shell shall be raised telescopically over the inner shell. The latter by preference comprises a flat base 1, two oppositely disposed upright sides 2, and two ends 3 rising to about the same height as the sides and one of them provided with a deep notch 4; and the outer shell comprises a closed flat top 11, two oppositely disposed sides 12 spaced apart a sufficient distance to permit them to pass over the sides 2 of the base member, and two ends 13 of which one has a notch 14 somewhat wider than that numbered 4. In assembling the two members or shells their closed ends overlie each other and the notched end of the outer and upper shell normally overlies the notched end of the inner or base shell so that no dust and dirt can accumulate within the device. In order to prevent these two shells from being entirely disconnected, while yet permitting the vertical movement of the outer upon the inner, we provide the sides of the outer shell in their inner faces with upright grooves 15 into which fit outwardly projecting studs 5 on the inner shell, and the slidable engagement of the studs with the grooves prevents the members or shells from being separated from each other horizontally while permitting the upper shell to rise and fall. Taking through the sides of the outer shell are two screws 16 whose inner ends project into the grooves 15, and these screws may be set up so that as the outer shell rises they will strike beneath the studs 5 on the inner shell and will prevent the two members or shells from being disconnected vertically, while yet permitting them to be purposely disconnected when the screws are retracted. Thus is built up what might be called the box-shaped casing composed of two members or shells which cannot become accidentally disconnected and whereof the outer or upper shell is capable of vertical movement relatively to the inner or lower shell. Within the box-shaped casing or housing thus built up we assemble a series of wedges or blocks which are also preferably of metal. The base block 20 has a flat bottom 21 and two converging sides 22 forming its top and meeting at an angle 23, through which at its center is formed a transverse notch 24. The cap block 30 has a flat top 31 and a beveled lower face 32 whose angle to its top is the same as that of either side 22 to the bottom 21 of the

block described above, and through the body of this cap block is formed a notch 34 which runs parallel with its top face 31 and opens out its upright base end 35. The third block 40 is wedge-shaped, its inclined upper face 41 and inclined lower face 42 each standing at the same angle to a horizontal as do the inclined faces of the other blocks just described; and throughout the length of this block extends a threaded hole 44 which opens at one end through the angle 43 of the wedge and at the other end through its upright base end 45. When these several blocks are assembled with their inclined faces in contact, they make up a composite wedge or elevating member which is rectangular in side elevation as illustrated and whose horizontal dimensions are just such that it will fit accurately and neatly within the inner shell or casing member described above.

The numeral 50 designates a screw whose threads are such that they will engage those in the hole 44 of the wedge block 40 and whose head 51 is made angular for the reception of a wrench or suitable tool. Just under the head is an enlarged collar 52 which, when all parts are in place, rests against the outer face of the end 3 of the base shell, the shank of the screw 50 extending through its notch 4 and its threads taking into the hole 44, and the head 51 of the screw standing on the outside of the entire device where it may be reached by a wrench or suitable tool.

The parts having been assembled as set forth, this improved leveler is inserted under the leg L or under any other article which it is desired to raise, and the same will be firmly supported without permitting any vibration. When it is desired to elevate the member supported thereby, the screw 50 is turned in the proper direction to draw the wedge block 40 toward the upright base end 35 of the cap block 30, and in its movement in that direction its upper face 41 slides along the lower face 32 of the cap block and its lower face 42 slides along one of the sides 22 of the base block while the lower face 32 of the cap block where it rests upon the other side 22 of the base block is soon lifted out of contact with the same by the entrance of the wedge. The upright walls which compose the ends 3 and 13 of the two shells prevent the improper movements of the wedge members while being adjusted with this screw, and the other walls or sides 2 and 12 of said shells stand adjacent the ends of said block members although the screw passing through the hole in the block 40 and through the notches 24 and 34 in the other blocks will prevent their lateral disconnection or separation. Having elevated the outer or cap block as far as necessary to level the billiard table or other ar-

ticle, the user has only to remove the wrench or tool from the square head 51 of the screw and leave the parts at rest. Meanwhile the studs 5 on the inner shell have ridden up the grooves 15 within the outer shell, and it has been impossible for these two shells to become disconnected laterally. From time to time the adjustments may be changed as different conditions will require, and it will be clear that a reverse movement of the screw will cause a descent of the article or member to be leveled just as a right turn on the screw will cause its ascent.

What is claimed as new is:

1. In a device of the character described, 80 the combination with a casing composed of two box-shaped members whereof the outer is movable vertically upon the inner; of a series of blocks housed within said inner member and including a base block having 85 a flat bottom and two inclined sides, a cap block having a flat top and an inclined lower face resting on and wider than one of said sides, and a wedge block having inclined upper and lower faces simultaneously con- 90 tacting with the exposed portion of the lower face of the cap block and the exposed side of the base block, and means for adjusting said wedge block between the other two.
2. In a device of the character described, 95 the combination with a casing composed of two box-shaped members whereof the outer is movable vertically upon the inner; of a series of blocks housed within said members and comprising a base block having a flat 100 bottom and inclined sides with a notch across its angle, a cap block having a flat top and an inclined lower face adapted to rest upon one of said sides and provided with a notch through its body, and a wedge block 105 having inclined upper and lower faces adapted to contact with the exposed portion of the lower face of the cap block and the remaining side of the base block and provided with a threaded hole through its body 110 opening out its angle; and a screw passing loosely through said notches and taking into said threaded hole.
3. In a device of the character described, 115 the combination with a set of blocks having inclined faces engaging each other, and means for moving one of them relative to the others; of a casing consisting of two members whereof one has a flat base and up- 120 right sides with outwardly projecting studs in said sides, and the other has a flat top and depending sides with upright grooves in the latter loosely engaging said studs, and screws through the side walls of said outer member with their tips projecting into said 125 grooves, for the purpose set forth.
4. In a device of the character described, the combination with two box-shaped shell members, each having a flat portion and up- 130 right side walls at opposite sides thereof and

each having one end wall provided with an upright notch, the upper shell inclosing the lower shell and movable vertically thereon; of a series of blocks which when nested are of a rectangular contour to be inclosed within the inner shell, one of the blocks having through its body a horizontal threaded hole and the others having registering notches, and a screw whose shank engages said hole and passes through the notches in the other blocks and in one of said shell members and

has an enlarged collar adjacent its projecting end, as and for the purpose set forth.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses. 15

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Witnesses:

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