

J. N. McINTIRE.
 COMBINED DEVICE FOR SUPPORTING AND LEVELING FURNITURE.
 APPLICATION FILED MAY 1, 1905.

901,636.

Patented Oct. 20, 1908.

Fig. 1

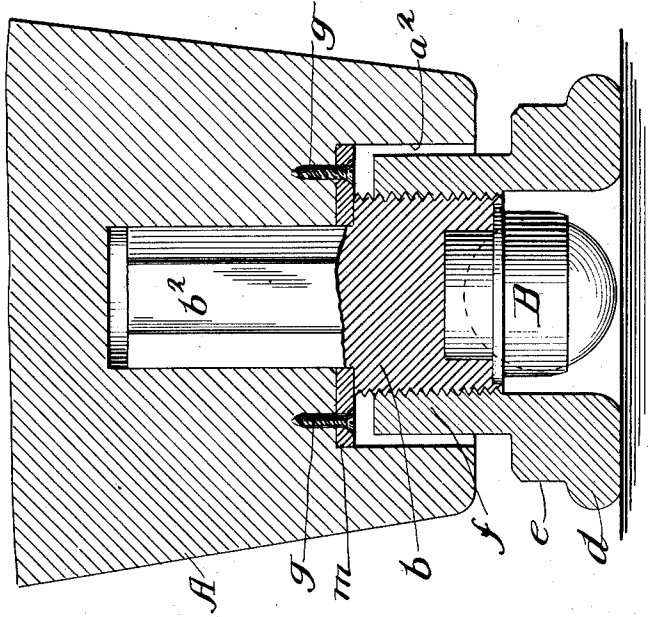
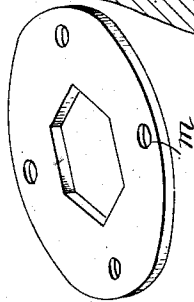
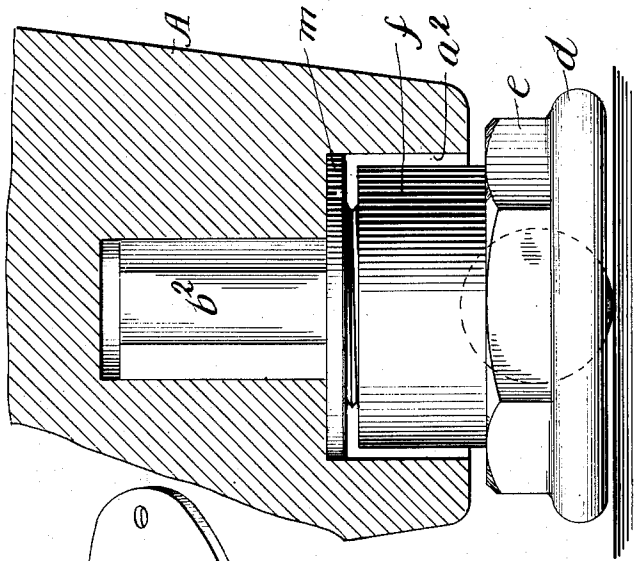


Fig. 2,



WITNESSES:

Harry Goss
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Fig. 3,

INVENTOR

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COMBINED DEVICE FOR SUPPORTING AND LEVELING FURNITURE.

No. 901,636.

Specification of Letters Patent.

Patented Oct. 20, 1908.

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To all whom it may concern:

Be it known that I, JACOB N. McINTIRE, a citizen of the United States, residing at New York city, in the county and State of New York, have invented a new and useful Combined Device for Supporting and Leveling Furniture, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof.

My invention relates to devices adapted to be applied to the feet, or lower ends of the legs of any article, or piece of furniture, in the use of which it may be necessary to sometimes effectuate a vertical adjustment, at the vicinity of one or more of the supporting legs; and which it may sometimes be desirable to have the article capable of easy movement along over the floor surface on which the supporting legs may rest; while at other times it may be desirable to have the article supported practically immovably on the floor.

The device which I have invented is, especially adapted to, and has been designed by me specially for use in connection with the article of furniture known as a "convertible sofa-billiard table;" or a combined sofa, or settee and pool or billiard table; which, in practice, must possess the capacity for a leveling-up of the game table playing-surface, when the parts of the piece of furniture are relatively adjusted to adapt the latter for use as a game table; and which, under this adjustment, has also to be maintained in a practically immovable condition on the floor of the room (the same as in the case of a simple, or regular pool, or billiard table); but which article of furniture, when its relatively adjustable parts are positioned to adapt it for use as a sofa or settee, must possess the capacity to be very readily moved about on the floor of the room; or in other words, must be made so that it can be easily moved about over the floor from one to another part of the room.

As is well known to those skilled in the art of making "convertible" sofa-billiard tables, and familiar with their uses, such a combination piece of furniture is rather heavy (partially on account of the bed of the game-table portion being composed of slabs of slate), weighing, in the case of a three and a half by seven foot bed, in the neighborhood of seven hundred or eight hundred pounds; and needs to be mounted on casters,

in order that when in use as a sofa, or settee, it can be conveniently moved about or rolled over the room floor, while, at the same time, it is indispensably necessary that, when in use as a game-table, the article of furniture be not only, comparatively, immovable, or firmly stationed, on the floor the same as in the case of a regular billiard or pool table; but also possess the capacity for a vertical adjustment of each of its supporting legs, so that, when so used, the bed may be leveled-up to bring and maintain the playing-surface to and in a perfectly horizontal plane.

My improved device, by which all these desirable ends are attained to, consists of a caster (of any suitable kind) immovably (or permanently) applied to the lower end of the leg of the piece of furniture; and a vertically adjustable leveling-device, combined with the said caster and leg, so that by a vertical adjustment of said leveling-device, the caster may be rendered either operative, or inoperative, accordingly as it may be desired to have the piece of furniture capable of easy movement on the floor, or rendered practically immovable; and so that, furthermore, by said adjustment of said leveling-device, the table bed may be adjusted to and maintained in a perfectly horizontal plane.

To enable those skilled in the art to make and use a convertible sofa-table embodying my invention, I will now proceed to describe the construction and operation of my improved device, as applied to a combination settee and game table, referring by letters to the accompanying drawing which forms part of this specification, and in which I have shown my invention carried out under the precise detail construction which I have so far successfully used; though, it will be understood that my said invention is not necessarily limited to the precise form in which I have thus far successfully practiced it.

In the drawing, Figure 1 is a vertical, central section of the lower end portion of the leg of a convertible billiard table and sofa having my novel supporting device combined with, or applied thereto; and drawn with the caster part partially in elevation. Fig. 2 is a side elevation of what is shown at Fig. 1; but with the wooden leg in section. Fig. 3 is a detail view showing in perspective a perforated plate detached.

At Fig. 1 the two main parts of the device

are shown adjusted relatively, so that the piece of furniture is supported on the tubular leveling device; in order that it may rest immovably on the floor of the room; while at Fig. 2 these parts are adjusted so that the piece of furniture is supported wholly on the ball caster; and with the said leveling device in a position of disuse, so that it can be readily moved about on the floor.

In the several views the same part will be found always designated by the same letter of reference.

A is the lower portion of the leg of a convertible sofa-billiard table, the end of which is centrally bored out for the accommodation, as shown, of the stem b^2 , of a ball-caster B; and is counter-bored (as seen as a^2 , Fig. 1) for the accommodation of the enlarged externally threaded portion b of the caster, and also for the tubular body-portion f of an adjustable leveler and supporting device, the said tubular portion f of which is internally threaded and screws onto the part b of the caster; and which has its lower end formed with an annular (rounded) base d , adapted to rest on the floor, and also, preferably, with a polygonally shaped part e , for the accommodation of an ordinary wrench—in a manner and for purposes to be presently explained.

m is a polygonally perforated plate, which is shown as made in the form of a circular disk (though this precise form is not indispensably necessary); and which is seated on the shoulder in the wooden leg A, formed by the counter-boring of the hole in the latter, and which is securely fastened to the stock of leg A, by two or more wood screws g —or in any other desired manner—to prevent any turning movement, on its seat, of said device m ; the function of which is to hold the stem b^2 of the caster against any turning movement, or rotation about its axis.

In assembling the metallic parts shown with the leg A and with each other, the plate m is first placed and secured in position and (preferably) the caster device is then forcibly positioned, the hole in the leg A for the accommodation of the stem b^2 , being of such diameter that the polygonally shaped stem b^2 has to be driven thereinto with a tight, or snug fit, and to insure such fitting this stem b^2 may be made slightly tapering lengthwise. And then the tubular device, or part f is screwed onto the body-portion b of the caster, as best seen at Fig. 1. Thus assembled, or applied, the parts of the novel device, invented by me, will, as seen at Fig. 2, be in condition such that the piece of furniture (for use, for instance, as a sofa) be mounted and supported wholly on the ball-casters B. When, however, it may be desired to render the supported article substantially immovable on the floor (as in the case of the use of it as a billiard table) the leveler

supporting device, or part $d e f$ is lowered, or turned downwardly (by unscrewing the part f on the thread of the part b of the caster) until its foot d , shall have been forced down hard onto the floor—as seen at Fig. 1—whereupon the whole weight of the piece of furniture will be thrown onto, and be sustained by this device $d e f$. And when in this condition—with the caster support disutilized—by a further downward adjustment of the part $d e f$, the leg A and that part of the piece of furniture supported by it (one corner of the game table) may be elevated to effectuate a leveling of the table bed; the leveling devices, at one, two or three corners of the table, being operated, as occasion may require, in the usual bed leveling operations. To readily thus turn, or screw downwardly the device $d e f$, the portion e is polygonal, in horizontal section (as plainly shown at Fig. 2) so that by the application to this part e of an ordinary wrench, the adjusting of the device, or part $d e f$ may be easily effected. As shown, the foot part or base d , of this part of the new contrivance is made circular in cross section, and rounded in vertical section, at its bottom annular edges, so that, in turning axially in contact with the floor surface on which the supported article rests (when and after the whole weight of the latter shall have been thrown onto the feet d) there will not occur any injurious abrasion of the floor.

Of course, various mere modifications, in the details of my new device may be made, without changing its novel principle of construction and mode of operation; and, hence, without departing from the spirit of my invention; such changes, for instance, as substituting for the circular plate, or disk m , screwed to its seat to prevent rotation, a polygonally shaped plate seated in a correspondingly shaped depression in the wood; such as making the stem b^2 cylindrical and screwing it into the stock of the wooden leg A, or into a nut let into the wood (in which case no substitute for plate m would be needed); such as the use of some other species of caster than the ball-caster shown; such as dispensing with the polygonally shaped part e of the tubular adjustable device $d e f$, and the formation of the whole lower portion of said device circular in cross-sectional shape and having it made with one or more radial holes for the insertion therein of a hand lever with which to turn the device instead of using an ordinary wrench, etc.; the gist of my invention residing in the idea of combined caster and leveler parts, made and arranged together and with the leg A so that, as I have shown and described, the legs of the piece of furniture to which my new contrivance may be applied may, at the pleasure of the user, be supported by the permanently arranged

casters, to render the latter easy of movement on and about over the surface of the room floor; or may be supported on non-rolling devices; and may, while under the last-named condition, be jacked up, or lowered, under the gravity of the thus supported article; for the purpose of leveling the bed of the piece of furniture, for the well known purpose of placing and maintaining, in a perfectly horizontal plane, the playing-surface of the game table.

What I therefore claim broadly as of my invention is:

In a supporting device, or contrivance for convertible sofa-billiard tables, adapted to operate, under different adjustments of its parts, either to support the piece of furniture on casters, or else in such manner that

it cannot be easily moved about on the floor, the combination, with a caster, immovably combined with the article to be supported, of a device vertically adjustable relatively to the caster, which encircles the said caster and which operates to either throw the caster into disuse, and itself serve as the sole supporting device (when adjusted downward) or to be thrown into disuse, by a sufficient upward adjustment; all in substantially the manner hereinbefore set forth.

In witness whereof I have hereunto set my hand this 18th day of April, 1905.

J. N. McINTIRE.

In the presence of—

EDWARD H. CARPENTER,
C. B. SCHUCKLE.