H. F. DAVENPORT.

CONVERTIBLE BILLIARD TABLE.

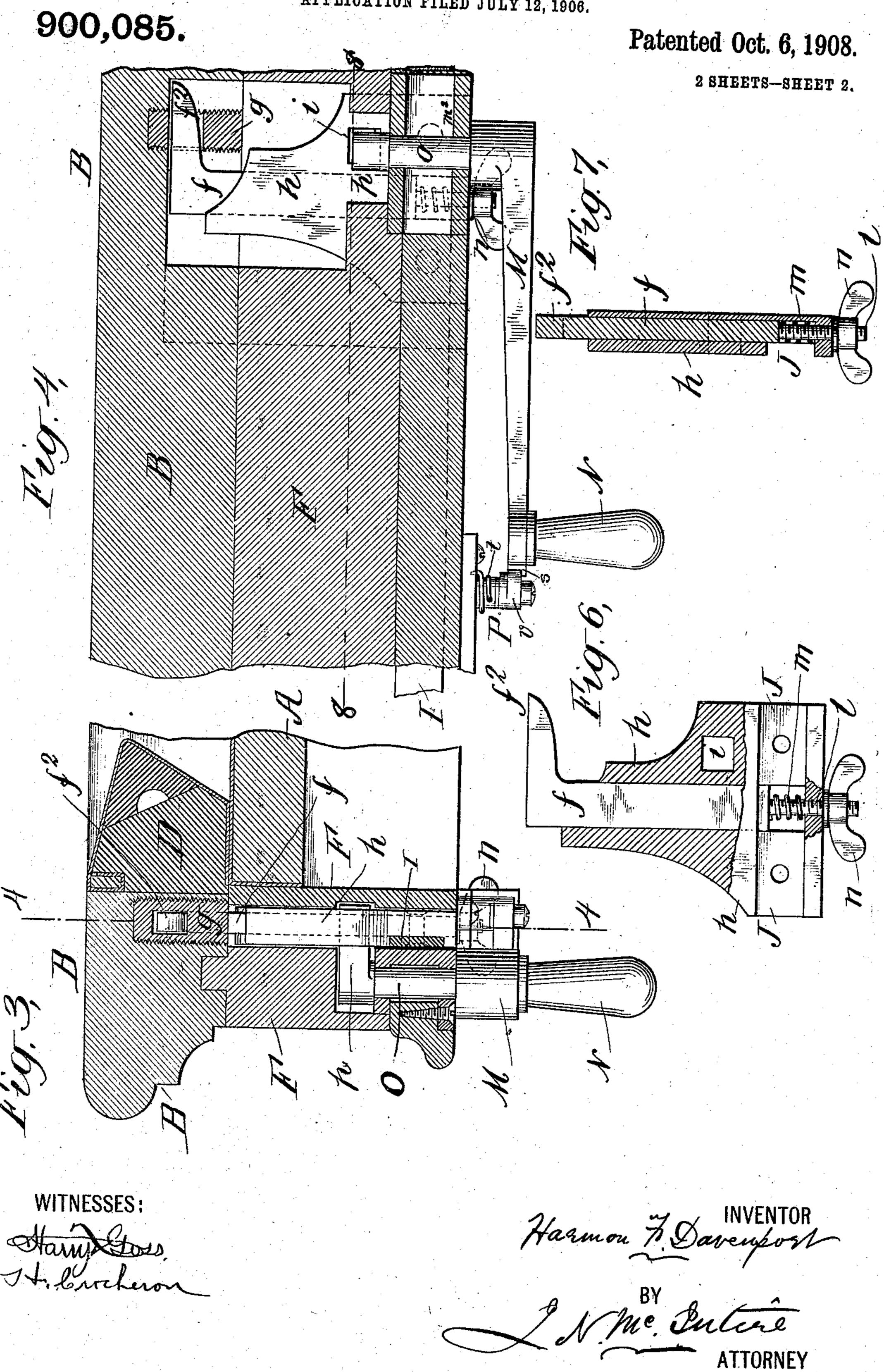
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APPLICATION FILED JULY 12, 1906.



UNITED STATES PATENT OFFICE.

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CONVERTIBLE BILLIARD-TABLE.

No. 900,085.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed July 12, 1906. Serial No. 325,755.

To all whom it may concern:

Be it known that I, HARMON F. DAVEN-PORT, a citizen of the United States, residing at Chicago, in the county of Cook and State 5 of Illinois, have invented a new and useful Improvement in Convertible Billiard-Tables, of which the following is a specification, reference being had to the accompanying draw-

ing, forming part thereof.

10 My invention relates to what is known as a convertible pocket-carom billiard table of that genus in which two sets of interchangeable cushion-rails, namely one for making the table a carom table, and the other for 15 making it a pocket table, are employed; according to the general construction of what is now well known in the market as the 'Bartel" convertible table; and to this type of convertible table, when made to comprise 20 the specific construction, with reference to the means for permitting the detachment of and re-securing in place to the table-rails proper of, the two kinds of cushion-rails, that is fully shown and described in a co-25 pending application of mine, filed November 20th, 1905, Serial No. 288,118. And my said present invention has for its object, solely, a change or variation in the rail-securing device or organism made the subject 30 of my said other application, by which I am enabled to effectuate at pleasure, when circumstances may require it, a separate and distinct, independent, adjustment, by hand, of each and every one of the male members 35 of the locking mechanism.

Within the past six years or so, what is known as the "Bartel" convertible billiard table, on which Letters Patent No. 650,085, of May 22, 1900, was granted, has gone into 40 successful and very extensive use. Without specifying the particularities of this novel construction of convertible billiard table, I may remark that its construction and operation, which is now and has been for a good 45 while, well known to those skilled in the art, and to the purchasing public, will be found fully set forth in the said United States Let-

ters Patent.

In the Bartel table, as heretofore exten-50 sively made and sold, the cushion rails, as is well known, are removably, but very se-· curely, attached to and detached from what are called the bed-rails of the table, by means of a series of vertically arranged thumb-55 screws; which pass upwardly through the

bed-rails and are manipulated from beneath, by hand, and which engage, at their upper, threaded, ends, with nuts which are securely and permanently attached to, or let-into, the cushion rails proper. Under this con- 60 struction, as is well known, in making the transformation from one end to the other kind of table, quite a number of these securing thumb-screws has to be separately manipulated by hand (usually five or six of 65 each longer, and three or four of each shorter set of cushion-rails) which involves considerable time and trouble by the user, or by the person making the transformation.

The invention of my co-pending case, which is herein shown and described, but not claimed, has for its object to render much easier and more expeditious the manipulation of the translatable sets of cushion-rails 75 of the "Bartel" type of table; and consists, essentially, in the combination with the series of female fastening members, located in the removable cushion-rail, of a series of male fastening members attached to a sliding 80 bar in the stationary bed-rail; and a hand, actuating-device, for working the said slide bar; all so that, by a slight and rapid manipulation of a single hand-lever, all the male fastening members (of any one bed-rail) may 85 be simultaneously and rapidly moved into the locking position; and vice versa.

In the drawings, Figure 1 is a partial top view of the usual "Bartel" convertible table, as now made and sold, with the improve- 90 ment applied, (though not visible) that constitutes the subject matter of my present application; showing, however, only one corner of the pocket table, and a set of pocket cushions applied thereto. Fig. 2 is a similar 95 view of the same thing; but with a set of carom cushions applied to the table. Fig. 3 is a vertical cross sectional view of so much of the table as is seen in each of the preceding figures, showing the construction of the lock- 100 ing mechanism made the subject of my copending case, altered or changed to comprise the improvement made the subject of this application. Fig. 4 is a vertical, longitudinal section of the same parts and de- 105 vices. Fig. 5 is a detail elevation showing one of the sliding rods, for operating the male members of the locking mechanism, with the attached male members made according to my present invention or improve- 110

ment. Fig. 6 is a sectional elevation, on an nlarged scale, of one of the adjustable male member devices of the locking mechanism. Fig. 7 is a vertical, central cross section of the 5 same—on the scale shown in Fig. 6. Fig. 8 is a vertical, partial, longitudinal section of the table, taken in a plane indicated at line 8—8 of Fig. 4.

In the several figures, the same parts will 10 be found always designated by the same let-

ters of reference.

And in both my co-pending case and this one, each and every one of the detachable and re-attachable cushion-rails B, is pro-15 vided with a plurality of metallic nut-like devices g, each of which is let into the stock of the cushion-rail, so that its lower end lies about flush with the bottom surface of said rail; and each of these metallic devices is 20 perforated with a polygonal aperture, running through the device in the direction of the length of the table-rail. And adapted to engage with this aperture, in each one of the said nut-like devices g, is a male fastening de-25 vice member f^2 , which is of an approximately wedge-shaped configuration, in side view, and integral with which is a body-portion f, of plate like form, which, extending downwardly and being located in a housing or cut-30 away in both the removable cushion-rail B, and the stationary bed-rail F, has its lower end indirectly connected (as will be presently explained) to a longitudinally sliding bar I, which is housed within the lower por-35 tion of the bed-rail of the table, and is free to move, endwise, on supporting devices; and which is held against any bodily upward movement, by over-lying metallic devices. The function of this sliding bar I, is to form 40 a connection between all the vertically arranged sliding plates f of any one cushionrail, to enforce a similar and simultaneous movement thereof when any one is moved. In my said co-pending application all these 45 male members are immovably or permanently secured, in sets or series, to sliding metallic rods, which are operated or caused to slide in one direction, to effectuate the locking in place of interchangeable rails, and

rails of the billiard table. Now, practical experience in the use of the invention, made the subject if my other 55 pending case, applied to or comprised in what is known as the "Bartel" convertible table, has demonstrated the fact that, while such tables, made with my said improvement, are much more desirable than those made ac-60 cording to the "Bartel" patent; and under ordinary circumstances are so perfectly satisfactory or acceptable in practical use as to need no change or improvement, it sometimes happens, in the use of these convertible 5 tables, that, by reason of some slight shrink-

50 in the other to release them, by means of a

hand-lever arranged at one side of the table-

age or warpage of some of the wooden parts of the structure; or from some undue wear of some one or more of the members of the metallic locking mechanism;—or from some other unseen or unaccountable cause—some 70 one or more of the interchangeable cushionrails will cease to be properly held in place by the locking-mechanism, at every one of the points of attachment of the interchangeable rails to the permanent rails; and of course, 75 under such, exceptional, condition of affairs, the removable rail will not act with perfection at some one point; on account of its not. being solidly or securely enough held in place, on the permanent rail, by locking 80 mechanism. To overcome this, rather infrequent, but possible defect in mode of operation of the "Bartel" table, as now manufactured and sold, embodying the improvement of my said co-pending case, I have conceived 85 and particularly developed, and used with perfect success, the further improvement made the subject of this application; which consists, essentially, in having each and every one of the male members of the locking 90 mechanism adjustably instead of immovably, applied to the sliding rod, that operates a series of the male members. And in the accompanying drawings, which form part of this specification, I have shown this new idea 95 reduced to practice under the specific or precise detail construction of locking mechanism which I have so far successfully practiced.

In the drawing, A is a portion of the bed of a Bartel convertible table, to which are ap- 100 plied securely, in the usual manner, the series of bed rails F, combined with the lower portion of which is the sliding rod I, for the male members of the locking devices, and the connected means for operating or manipulating 105 the same by hand, comprising the spindle O with its laterally projecting arm p, a lever M, with a handle N and a spring securing device P, for the hand lever M; all after the fashion or in the manner fully set forth in my 110 said pending application; and constituting no essential part of my present invention; while g are the female members of the locking devices inserted within the interchangeable or removable top rails B, to the forward faces 115 of which, as usual, are secured the linings D, of the cushions proper of the table; all in substantially the manner well known to those skilled in the art and familiar with the manufacture of the "Bartel convertible table."

At Figs. 5, 6, and 7, more particularly is shown the change, in the locking mechanism made the subject of my co-pending application, that constitutes the subject matter of this case; and by reference to these figures, 125 more particularly, (while Figs. 3 and 4 also show the construction and operation of my improved device) it will be seen that each one of the male members of the series of locking devices marked f, and made as in the 130

case of my pending application, with a laterally projecting and movable engaging, camlike, prong f^2 , (that engages with the aperture of the female member) is arranged 5 within, or combined with a stand like or holder-part, marked h; which is perforated at i for the reception of the operating finger or lug p of the actuating mechanism; and which is also made with a horizontal de-10 pression J (see Figs. 3, 6 and 7) for the accommodation of the actuating bar I of the locking mechanism, to which bar I said holder device h is securely fastened by screws or rivets or in any other suitable manner. 15 And it will also be seen that the lower end portion of each one of the vertically movable portions f of the male member is bored and tapped out to receive the end of a screw rod, or adjusting screw l, which is provided 20 at its lower protruding end, with a thumb nut n, and which is surrounded, preferably, by a compression spiral spring m arranged between the lower part of the cut-out or recessed part of the holder h, and the bottom 25 surface or end of the part f of said male member; all in such manner that, while said male member f is maintained upwardly in the position seen, for instance, at Figs. 6 and 7, by the spiral spring m it may be forcibly drawn 30 down, or caused to descend, and to consequently correspondingly lower, relatively to the female member of the locking device, tion, with the sliding rod for actuating a the laterally projecting cam-like fork or finger f^2 of said male member. And it will 35 be understood that, by reason of this novel construction, of each one of the male members of the locking mechanism, whereby any one of the engaging forks or fingers f^2 may be adjusted to, or set in either a lower or higher 40 position, (by manipulation of the set screws 1) while the holder h and the bar I, carrying the said male member f, retain a fixed or predetermined position, relatively to the female member of the locking mechanism and other

parts of the table, I am enabled, in case of 45 necessity therefor, (which as I have said, does not often, but does sometimes arise) to adjust or set any one of the male members f^2 , so that when a series of these members is simultaneously moved into the proper lock- 50 ing position, in the manner set forth, said ones of the members f^2 will operate differently, or differently coact with the female member g; as the surrounding conditions of the entire structure or of the entire locking 55 mechanism may require.

It has been demonstrated by extended public use, on a series of tables, that the herein described change in, or improvement on the automatic locking mechanism made 60 the subject of my other pending case, is of considerable importance, in the manufacture, use and sale of what are known as the "Bartel convertible pocket-carom tables," made with my previously applied for in- 65

vention embodied therein.

Having now so fully explained the general character as well as the objects of my present improvement; and its construction and operation, so that those skilled in the art can 70 make and use my invention, what I claim as new and desire to secure by Letters Patent

In a convertible pocket-caron billiard table of the type alluded to, the combina- 75 series of male locking devices, of male members, each of which is vertically adjustable within a suitable holder or housing that, in turn, is permanently secured to the said 80 sliding rod; all in substantially the manner and for the purpose hereinbefore set forth.

In witness whereof I have hereunto set my

hand this 6th day of July, 1906.

HARMON F. DAVENPORT.

'Witnesses:

ALBERT L. GREENBERG, JOHN P. O'BRIEN.