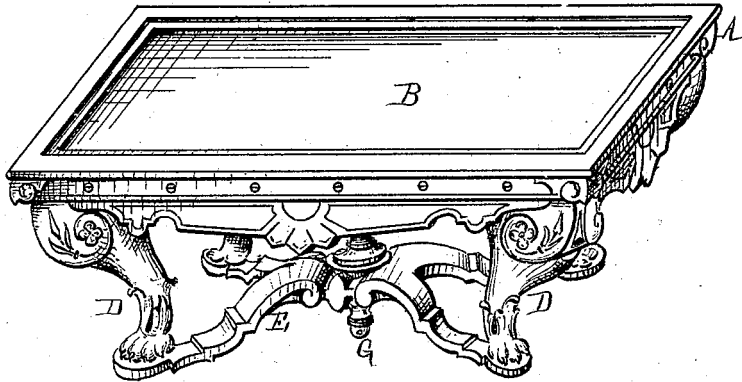


F. E. HELD.  
BILLIARD-TABLE.

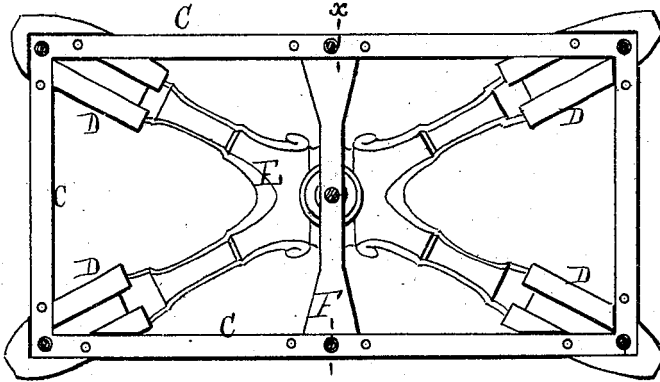
No. 170,557.

Patented Nov. 30, 1875.

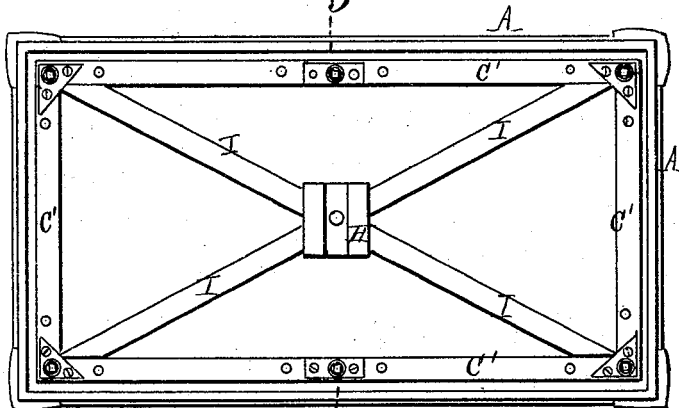
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



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BILLIARD-TABLE.

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Fig: 4.

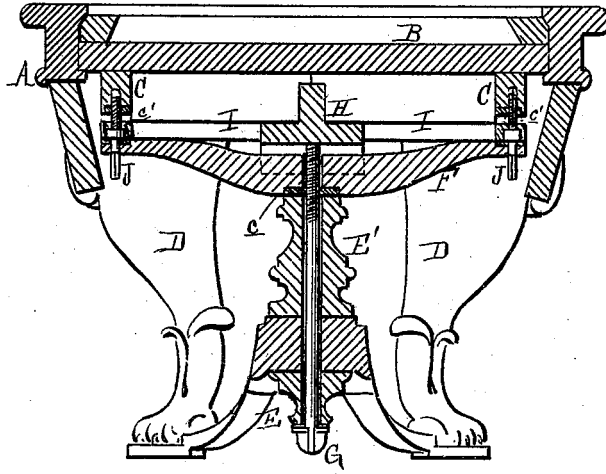


Fig: 5.

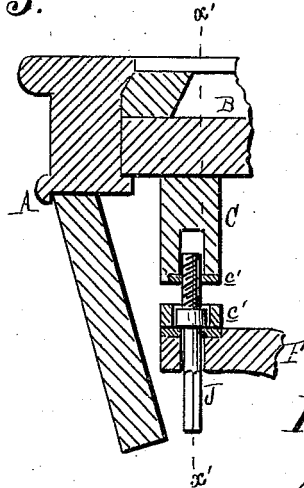


Fig: 6.

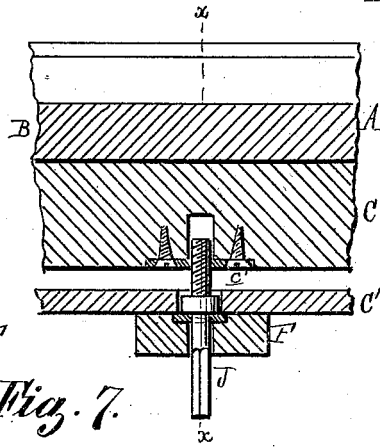


Fig: 7.

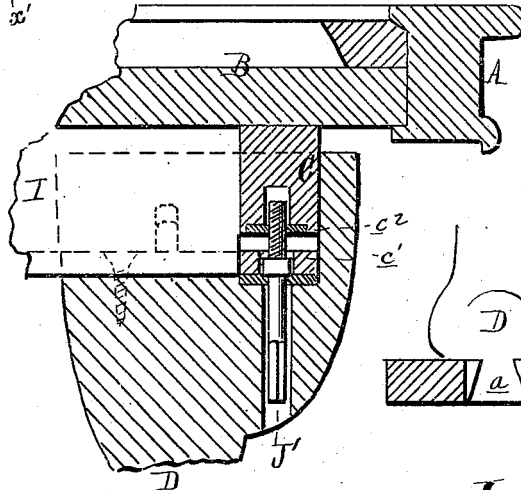


Fig: 8.

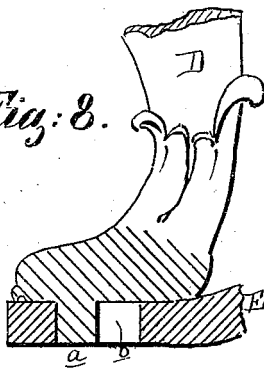
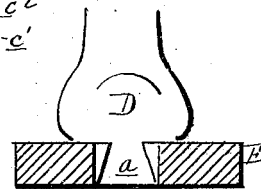


Fig: 9.



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# UNITED STATES PATENT OFFICE.

FREDERICK E. HELD, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN BILLIARD-TABLES.

Specification forming part of Letters Patent No. 170,557, dated November 30, 1875; application filed September 29, 1875.

To all whom it may concern:

Be it known that I, FREDERICK E. HELD, of Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Billiard-Tables, of which the following is a specification:

The object of my invention is to so construct a billiard-table as that its bed can be leveled with ease and accuracy after the table has been set up; and to this end it consists, mainly, in the construction of the supporting-frame, and the combination therewith of a number of adjusting-screws, as more fully hereinafter set forth.

Figure 1, Sheet 1, is a perspective view. Fig. 2 is a plan of the supporting-frame. Fig. 3 is a bottom plan of the same. Fig. 4, Sheet 2, is a cross-section at  $xx$ . Fig. 5 is an enlarged cross-section, at  $xx$ , of one of the longer sides of the frame, showing the adjusting-screw at the middle thereof. Fig. 6 is a longitudinal section of the same at  $x'x'$ . Fig. 7 is a cross-section of one corner of the table. Fig. 8 is a longitudinal section of the foot of a leg at its insertion in the lower frame. Fig. 9 is a cross-section of the same.

In the drawing, A represents the cushion-frame of a billiard-table, inclosing the bed B, which rests upon a supporting-frame, C, which is hidden by the pendent bevel panels of the cushion-frame. The corners of the frame C are received in gains cut in the tops of the corner legs D, as is also a lightersupplementary frame, C', underneath said frame. The purpose of the supplementary frame C' is to bind together the tops of the legs, being fastened to each of them at its corners, the frame C having free vertical play in the gains of the legs. The lower ends of the legs are provided with dovetail lugs  $a$ , which are received in dovetail sockets  $b$  in the ends of an ornamental cast-iron X-shaped frame, E, which, with the supplementary frame C', binds the whole in a rigid structure. At the center of the frame E there is an ornamental pillar, E', with a nut,  $c$ , at its top, upon which rests a cross-brace, F, upon whose ends rest the middle part of the longer sides of the frame C'. G is a capstan-screw passing up through the center of the leg-frame E,

the pillar E', and the nut  $c$ , through which it is tapped, and also up through the cross-brace F, impinging against the under side of a center-block, H, into which the inner ends of four diverging levers, I, are mortised, their outer ends being mortised into the legs D. These levers support the bed of the table, the center of which is raised or lowered by turning the capstan-screw, the head of which rests upon the floor. J is a collar-screw, dropped through an opening in each end of the cross-brace F, its collar resting upon it. Its upper threaded end is tapped through a nut,  $c'$ , let into the middle of the longer side of the frame C. The lower end of the screw is squared to receive a key, by which to turn it to raise or lower the middle of the said side, and thus level that part of the bed which rests upon it. The corners of the bed are leveled by similar screws J', dropped into sockets in the corners of the legs, upon which their collars rest. The said screws are tapped into nuts  $c''$  under each corner of the frame C, all parts of which are thus easily and accurately brought up to the proper level.

What I claim as my invention is—

1. The combination, with the legs of a billiard-table, of the frame C' binding rigidly the upper ends of the said legs, and the vertically-adjustable frame C, connecting with the said frame C' by set-screws, and supporting the cushion-frame and bed, substantially as described and shown.

2. The combination, with the legs of a billiard-table, of the frame E, connecting rigidly the lower ends of the said legs, the frame C' connecting rigidly the upper ends of said legs, the vertically-adjustable frame C supporting the cushion-frame and bed, substantially as described and shown.

3. The pillar E', cross-brace F, screw G, center-block H, levers I, and screws J J', in combination with the frames C C' E and legs D, for leveling the bed of a billiard-table, substantially as described.

FREDERICK E. HELD.

Witnesses:

WM. H. LOTZ,  
GEO. FROMMANN.