

(No Model.)

F. GALLSWORTHY.  
MEANS FOR LIGHTING BILLIARD TABLES.

No. 574,027

Patented Dec. 29, 1896.

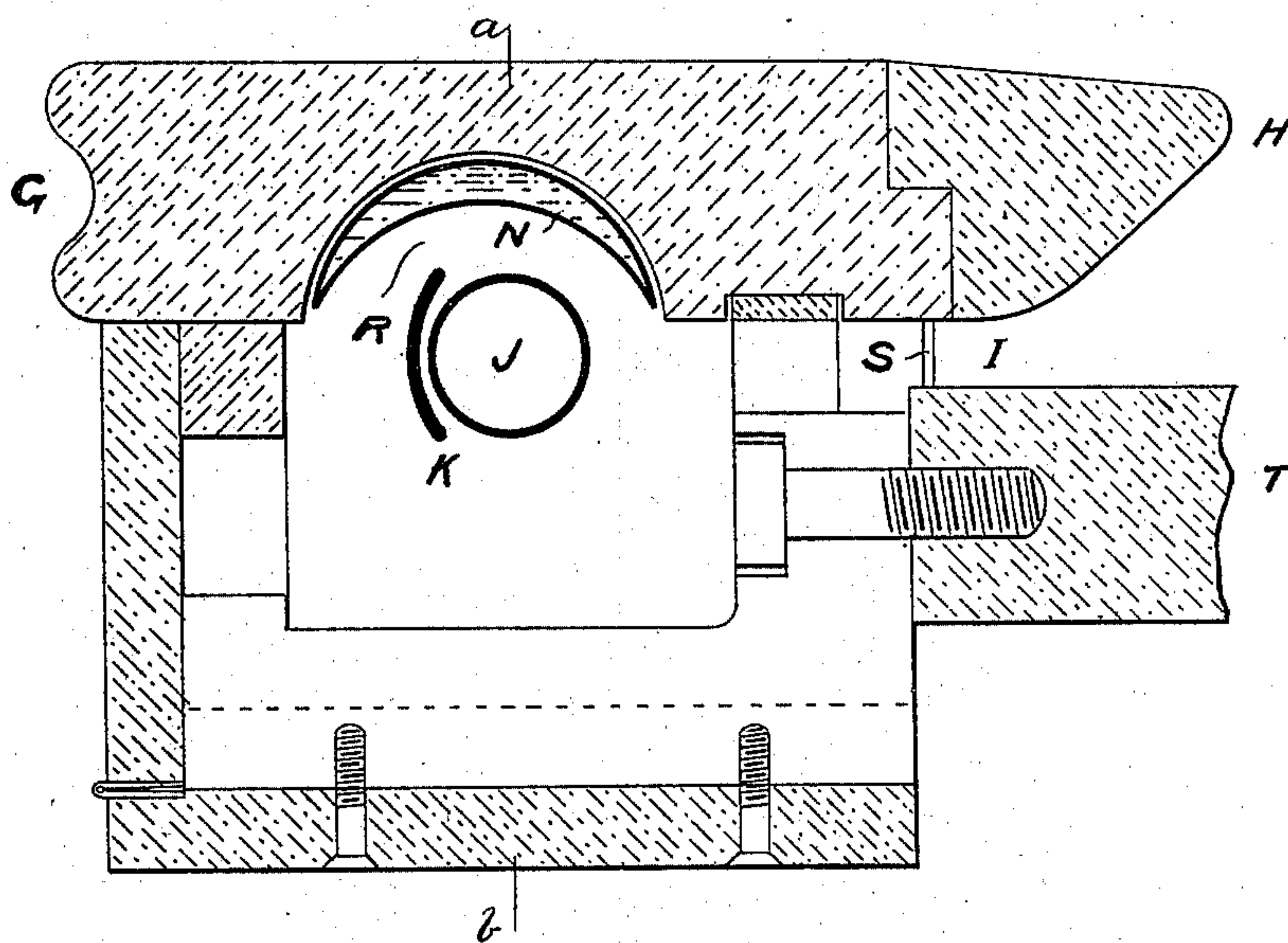


FIG. 1.

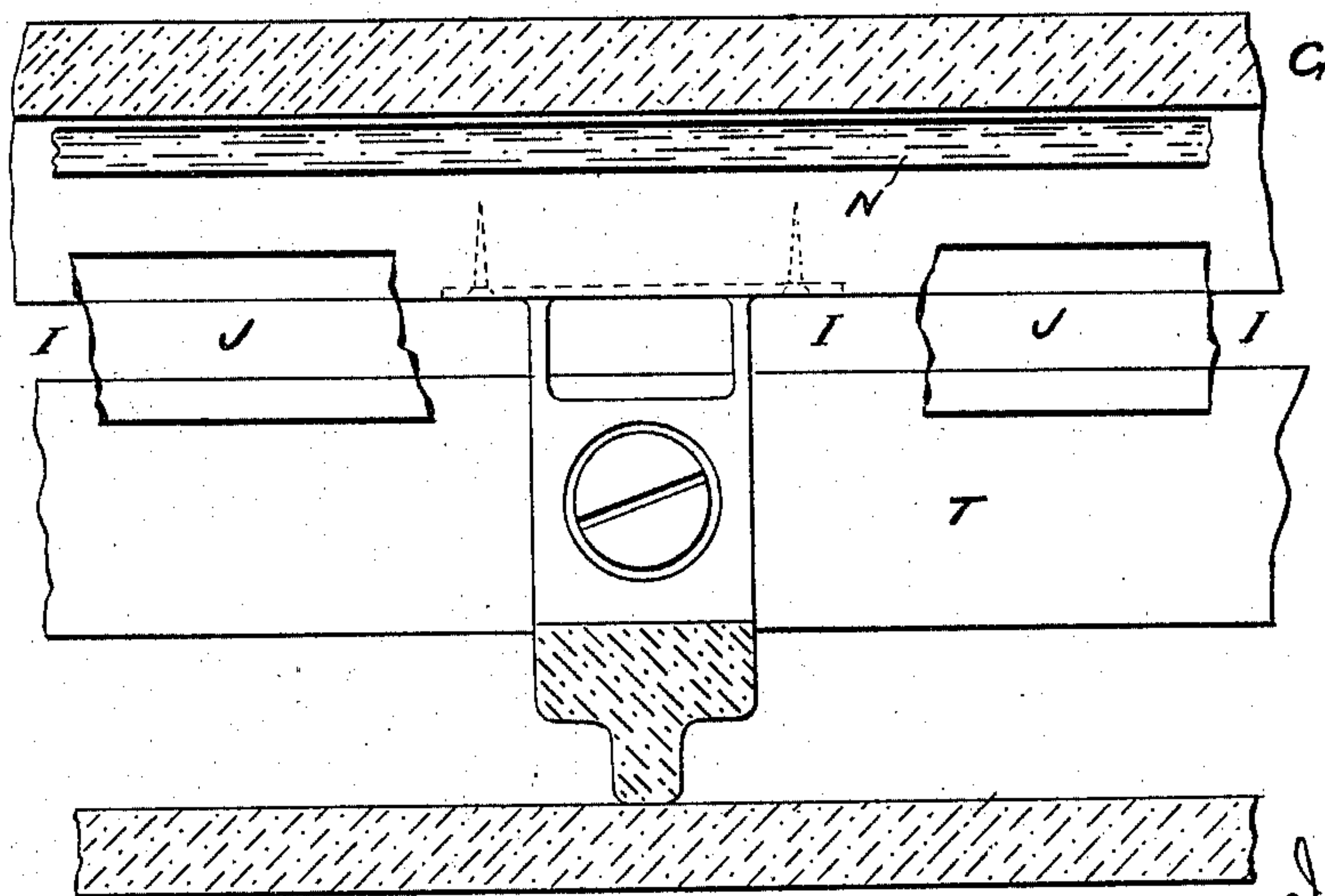


FIG. 2.

Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK GALLSWORTHY, OF LEEDS, ENGLAND.

## MEANS FOR LIGHTING BILLIARD-TABLES.

SPECIFICATION forming part of Letters Patent No. 574,027, dated December 29, 1896.

Application filed August 22, 1896. Serial No. 603,664. (No model.) Patented in England May 22, 1894, No. 9,904, and in Germany December 14, 1895, No. 84,396.

To all whom it may concern:

Be it known that I, FRANK GALLSWORTHY, a subject of the Queen of Great Britain and Ireland, residing at Leeds, in the county of York, England, have invented certain Improvements in the Method of Lighting Billiard-Tables, (for which a patent was granted to me in England, No. 9,904, dated May 22, 1894, and in Germany, No. 84,396, dated December 14, 1895,) of which the following is a specification.

This invention relates to certain improvements in the method of lighting billiard-tables.

Hitherto the lights have been suspended over the table, to the disadvantage of the player.

My object is to light the table in such a manner as to give a well-diffused light over the surface of the balls, which have hitherto been lighted from the top, and as a consequence the under hemispheres of the balls have been in shadow.

I accomplish my object by placing incandescent lights in specially-prepared cushions. The lights may be ordinary incandescent lamps, or by preference a continuous platinum wire or carbon filament inclosed in tubes *in vacuo*.

In order that my invention may be fully understood, I will describe the same in detail by making reference to the accompanying sheet of drawings, in which—

Figure 1 represents a cross-section through a billiard-table cushion constructed to receive my improvement, which is added thereto. Fig. 2 is a section on line *a b*.

The table T is of the ordinary description, covered with cloth, and the sides of the table are prepared with cushions, the foundation of which is indicated by G, supported in any convenient manner and faced with india-rubber or other suitable material H in the ordinary manner.

An open space I is left between the upper surface of the table T and the said cushion, extending the whole or for the greater portion around the table, and a cavity R is formed in the before-mentioned foundation G for the

reception and securing of the lamps J, which may be held in position in any convenient manner.

The light is reflected through the open space I onto the table T by a reflector K, placed behind the lamps J, and by the use of shades S, placed in the most convenient position between the light and the table, the light is thus diffused and subdued.

In order to prevent the heat from the lamps having a detrimental effect on the cushions, I secure above the lighting tube or lamp J a curved pipe N, made of light material and constructed convex on the upper or outer circumference and concave on the other or the side next the lighting-tube, or the pipe N may be of other convenient shape. A current of water is passed through the said pipe N, which absorbs to a considerable extent the heat given off by the incandescent light before it gets to the cushion-foundation, thus reducing the heat formed in the cavity around the table and under the cushions, thereby preserving the latter by keeping the temperature under more perfect control.

What I claim as my invention is—

1. In combination with a billiard-table, lighting means arranged around the guard-rail thereof, and supported by the said table to leave the top of the guard-rail free, said lighting means being adapted to illuminate the surface of the table substantially as described.

2. In combination with a billiard-table, lighting means arranged within the guard-rail thereof said guard-rail having an opening at its inner side for the diffusion of the light over the table.

3. In combination with a billiard-table, the rail comprising the foundation G, the cushion H at the inner edge thereof, said rail having a cavity with the opening I beneath the cushion, and the lamp within the guard-rail, substantially as described.

4. In combination with a billiard-table having the guard-rail with lighting means therein, the pipe N adapted to protect the parts of the rail from the heat, substantially as described.

5. In combination with the billiard-table

having a guard-rail provided with an opening about its inner side, the lighting means and the reflector for concentrating the light to the opening, said lighting means and reflector being arranged substantially in line with the opening in the guard-rail.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

FRANK GALLSWORTHY.

Witnesses:

B. H. MALLINSON,  
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