

M. Phelan,

Billiard Table,

Nº 19,101,

Patented Jan. 12, 1858.

Fig. 1.

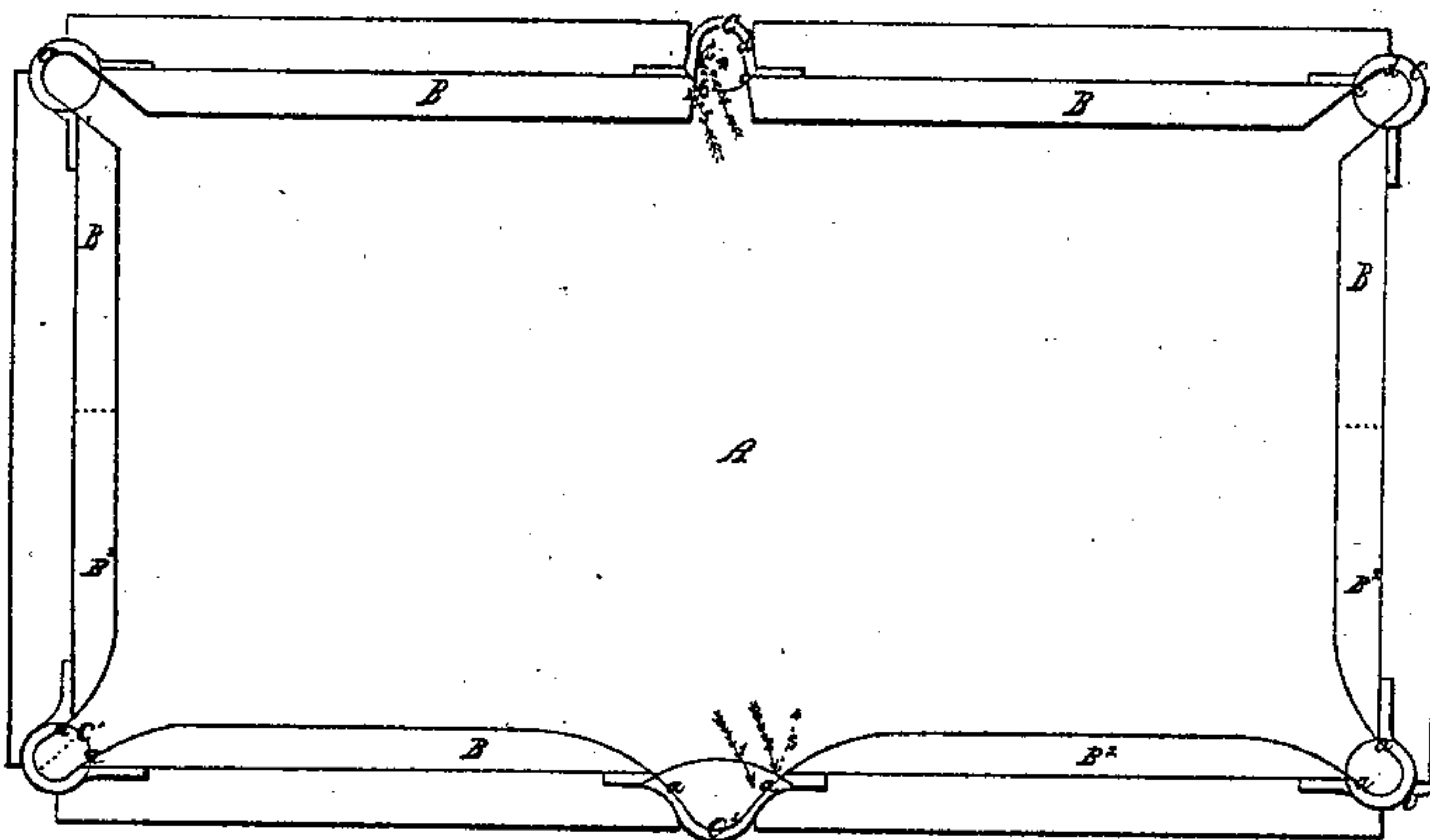


Fig. 3.

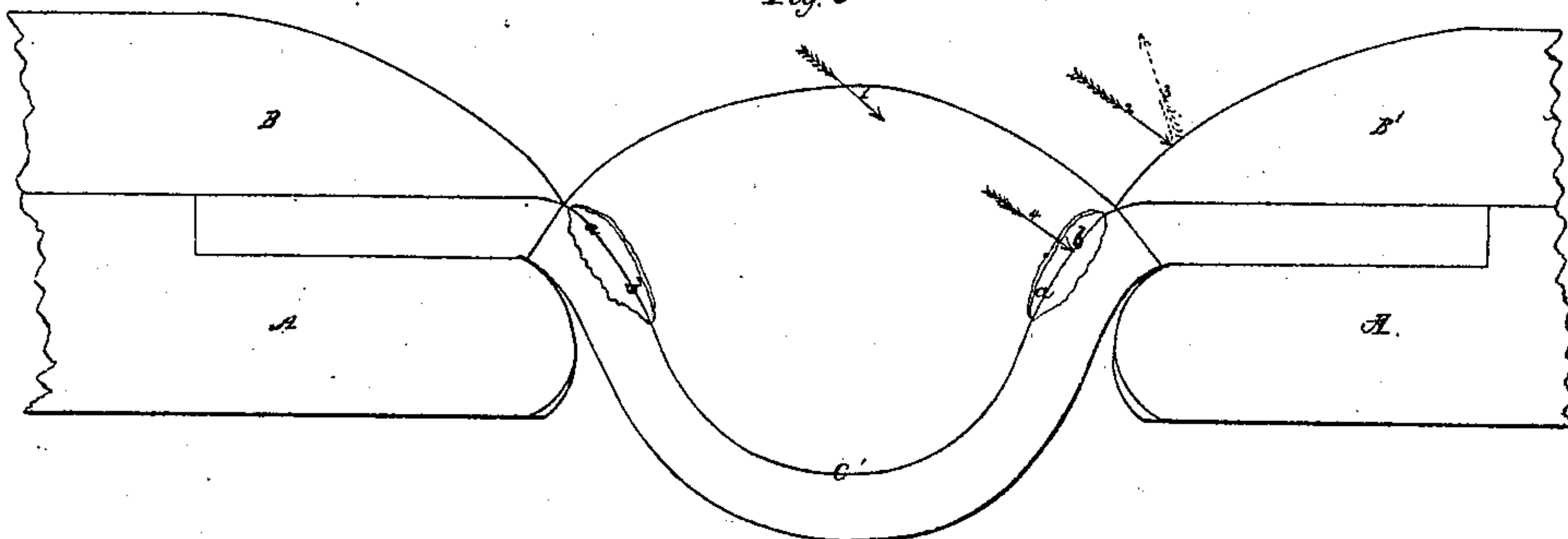
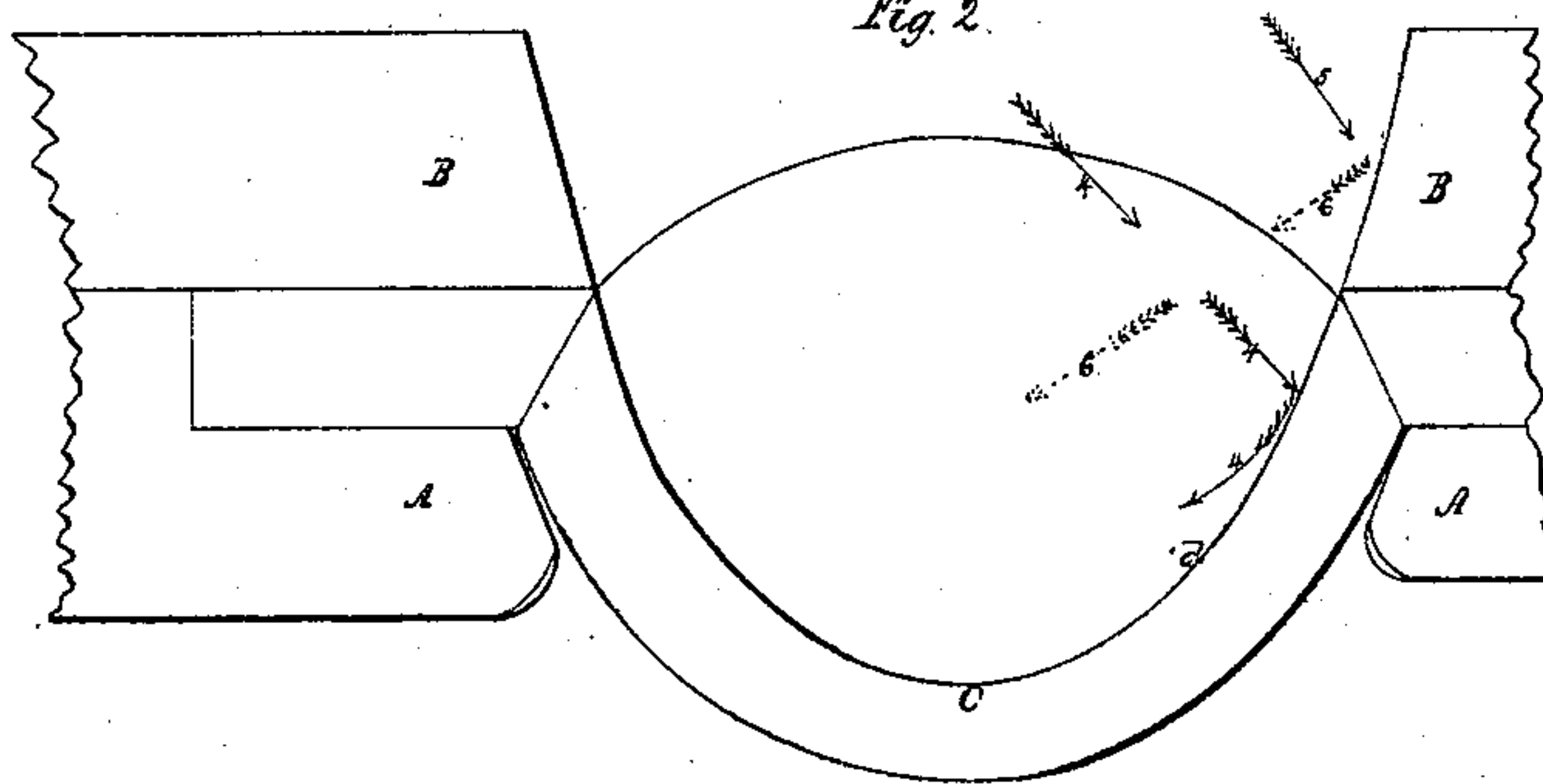


Fig. 2.



UNITED STATES PATENT OFFICE.

MICHAEL PHELAN, OF NEW YORK, N. Y., ASSIGNOR TO H. W. COLLENDER, OF SAME PLACE

CUSHION FOR BILLIARD-TABLES.

Specification of Letters Patent No. 19,101, dated January 12, 1858.

To all whom it may concern:

Be it known that I, MICHAEL PHELAN, of the city, county, and State of New York, have invented a new and useful Improvement in the Construction of Billiard-Tables; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a top view of a billiard table constructed after my invention. Fig. 2, is a broken plan view, on an enlarged scale, showing one of the side pockets as improved by me. Fig. 3, is a similar view, showing one of the old style of side pockets.

Similar letters of reference in each of the several figures indicate corresponding parts.

Before stating the nature of my invention, I deem it proper in order to establish its utility more fully, to give, what I consider, the principles upon which the game of billiards is founded, and to state the laws by which it is governed.

As the game of billiards in the abstract is not a game of chance, but a practical art proceeding upon fixed principles of science over which the joint laws of dynamics and mathematics exercise a strict control, and as all the combinations and varieties of forces and results upon the table bed are illustrations and effects of the said joint laws under different modifications, and for these reasons, and to increase the pleasure and instruction of playing by eliminating those chances inseparable from defective machinery, it is peculiarly desirable to avoid all those uncertainties of play and deceptions of the eye and judgment which are caused by the gradual curve of the cushions as they approach the pocket jaws in the old style of tables, it being impossible for the player to determine exactly where the curve begins or the effect it will produce on the reflective angle of an impinging ball. Therefore all strokes of this description made on the old style of table are deprived to a great extent of their true scientific character and thrown back into the category of chances, and this uncertainty and loss of rectilinear cushion is more acutely felt in all those strokes or situations of the balls wherein the proposition involves the striking of two cushions, and consequently the formation of a variety of compound angles requiring great nicety to calculate and strict correct-

ness in the machinery of the table to produce the methodical demonstrations had in view. And further, in the execution of those strokes technically known as cannon shots, the curving or vanishing cushion is very objectionable because two and a half inches playing surface is thrown away at each pocket, or thirty inches in all, and the table, therefore, does not present rectilinear surface enough to combine, what it should, the advantages of the pure cannon or pocketless table, made especially for the accomplishment of these shots, and those other strokes, known as "hazard shots," in which the proposition is to make one or more of the balls enter one or more of the pockets placed around the table bed, which combined advantages in one table are secured by my improvements, and were never before.

My invention consists, 1st, in giving the side and corner pocket-irons of billiard tables the form of a semicircle or regular concave as shown in Figs. 1 and 2, instead of a form which is partly convex and partly concave or similar to a cyma reversa or ogee as shown in Fig. 3.

It consists, 2nd, in having the cushions extended with a flat or rectilinear surface along their whole length or of an equal thickness from pocket to pocket and terminate, at or slightly beyond the corner pockets, in flat beveled ends, and at the side pockets in similar flat beveled ends, as hereinafter specified.

The first feature of my invention saves the leather of the pocket irons from being so rapidly worn off by the sudden and forcible coming in contact of the billiard balls therewith, and the second feature gives an increased amount of cushion or rectilinear playing surface, whereby greater or equal facilities for pocketing the ball are afforded, and whereby an infinite number of strokes not practicable on any tables hitherto used are rendered easy of execution and the scope and science of the game are greatly enhanced.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, Fig. 1, of the accompanying drawing represents a billiard table, one half of which is built and cushioned, and furnished with pocket-irons in the old style, and the other half in the new style or after my invention. The cushions B, of the new style of table

are extended in a straight line to their full length, or made of an equal thickness from end to end and terminate at the corner pockets in an angle of 45° or thereabout, and at the side pockets in an angle of 10° or thereabout, as illustrated in Figs. 1 and 2. By thus constructing the cushions, instead of making them of an unequal thickness, or tapering for about $2\frac{1}{2}$ inches on each side of each pocket, an increase of about 30 inches rectilinear surface, against which the ball can be played in the regular manner, is secured over the old style, in which fully $2\frac{1}{2}$ inches on each side of each pocket are thrown out of regular play, owing to their terminating in the curved tapering form shown in Fig. 3, which form is wholly useless and unnecessary.

The side and corner pocket irons C, of the new style of table are made to form nearly a semicircle or regular concave as shown in Figs. 1 and 2, instead of, as in the old style C', an irregular curve, as shown in Fig. 3, and by being thus shaped they increase the accuracy of the game, and when applied to a table having the improved cushions B, or even the old style, they are comparatively unexposed or out of the way of the action of the balls, owing to their being behind the termination of the cushion as shown, and consequently the leather with which they are covered is not so speedily worn off nor the balls injured by coming in contact with the uncovered metal.

It may be seen from Figs. 1 and 3 that with the old style of pocket irons C', a ball moving in the course indicated by the arrows 1, will strike with a dead blow the protruding or convex portion *a*, of the pocket iron, and in this way cause the leather, covering the irons, to be quickly worn off, and the iron to be exposed, as illustrated at *b*, after which the ivory ball will injure itself against the naked iron, and a system of constant and expensive repairs becomes necessary, to the great loss of the owner of the billiard room or tables and the hindrance of the game. Again with the old style of cushion B', a ball moving in the course indicated by the arrow 2, and striking as illustrated, would instead of dropping into the pocket after contact be thrown back onto the table in the direction indicated by the dotted arrow 3. Now with the new style of pocket irons owing to their being con-

cave between *c*, and *d*, as in Fig. 2, instead of convex, as at *a*, in Fig. 3, a ball proceeding in the course indicated by the arrows 4, would strike on a surface more on a line with the angle at which it moves, and consequently would, in striking, slide easily over the leather, or glance off instantly and hold itself into the pocket, and thus is avoided a dead blow against the leather, and the impairing of the same is prevented. The ball would also fall by its gravity sooner or before reaching the iron at all, owing to its not having so great a support as when the old style of pocket-irons are used. And again, a ball proceeding in the direction indicated by the arrow 5, would be thrown into the pocket at the angle indicated by the dotted arrow 6, instead of onto the table again as indicated by the arrow 3, in Fig. 3.

The simple saving of the leather on the pocket irons from injury and the exemption from deterioration secured for the ivory balls become serious items of economy in a billiard room where a number of tables are constantly in use by the public, and independently of the great facilities afforded for pocketing the balls and the addition of thirty inches of surface to the cushions, which may be used for scientific play, the above items are sufficient to give character and importance to the invention.

What I claim as my invention and desire to secure by Letters Patent, is—

1. Giving the side and corner pocket irons of billiard tables, the form of a semi-circle or regular concave as shown in Figs. 1 and 2, instead of a form which is partly convex and partly concave, or similar to a cyma reversa or ogee, as shown in Fig. 3, substantially as and for the purposes set forth.

2. Having the cushions extended with a flat or rectilinear surface along their whole length or of an equal thickness from pocket to pocket and terminate at, or slightly beyond the corner pockets in flat beveled ends, and at the side pockets in similar flat beveled ends; substantially as and for the purposes set forth.

This specification of my improvement in construction of billiard tables signed by me this 30th day of October 1857.

MICHL. PHELAN.

Witnesses:

HUGH W. COLLENDER,
DUDLEY CAVANAUGH.