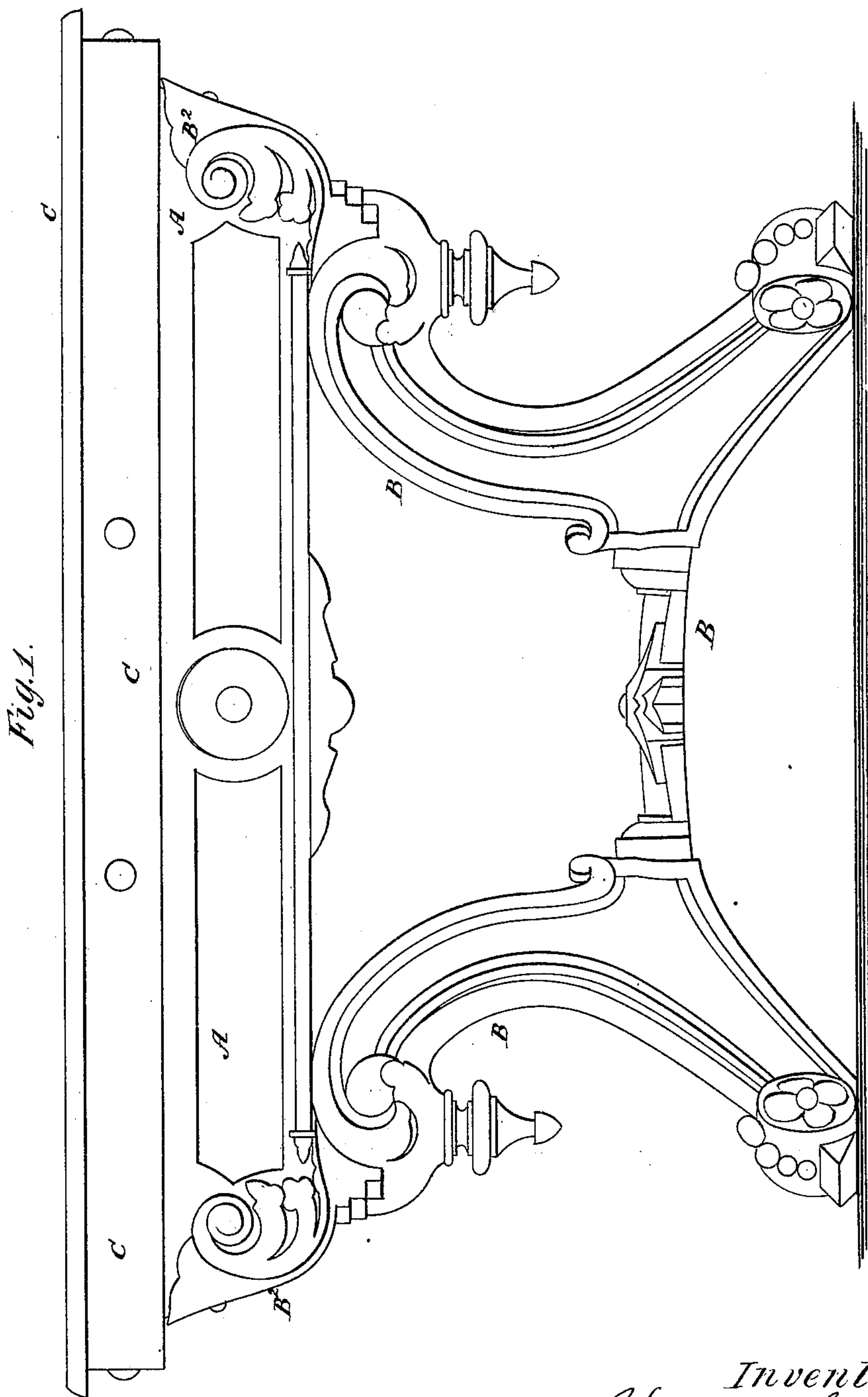


H. W. COLLENDER.  
Billiard-Table.

No. 214,368.

Patented April 15, 1879.



Witnesses:  
E. Wolff.  
Jacob Felbel

Inventor:  
Hugh W. Colender  
My atty.  
J. N. McArthur

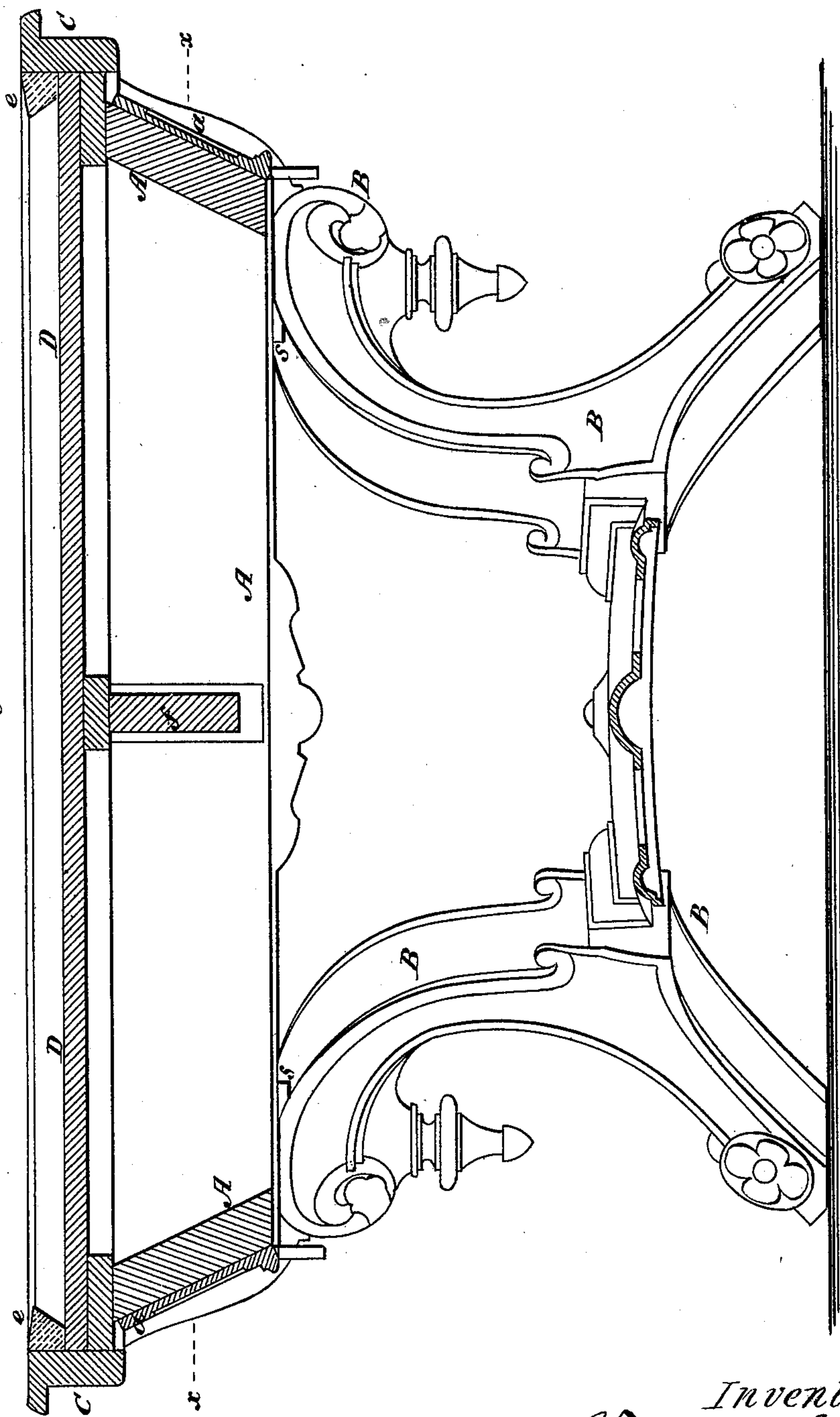
H. W. COLLENDER.

Billiard-Table.

No. 214,368.

Patehted April 15, 1879.

Fig. 2.



Witnesses:  
E. Wolff.  
Jacob Fehel

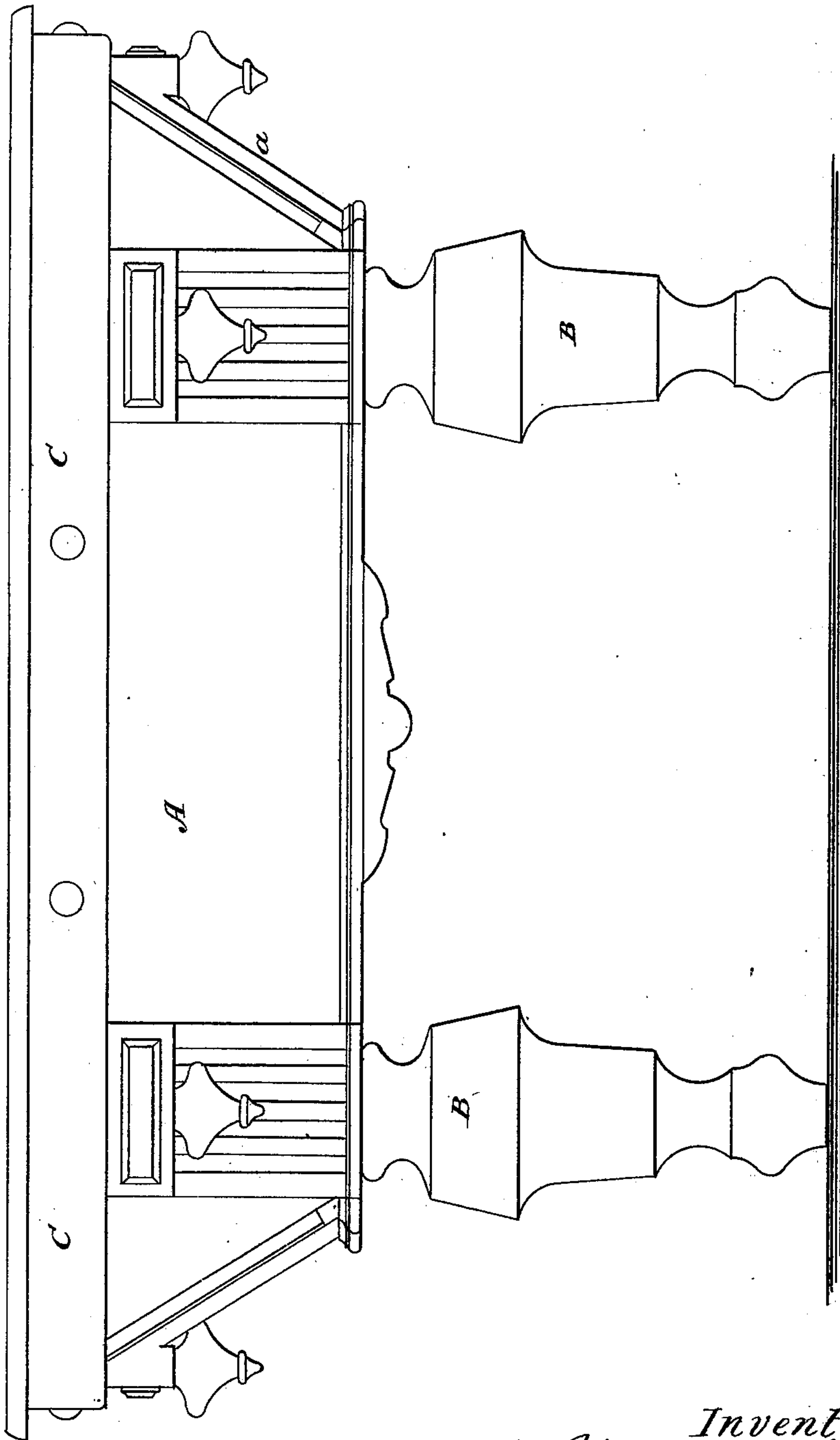
Inventor:  
Hugh W. Colender  
By atty  
J. N. McArthur.

H. W. COLLENDER.  
Billiard-Table.

No. 214,368.

Patented April 15, 1879.

Fig. 3.



Witnesses:  
E. Wolff  
Jacob Feller

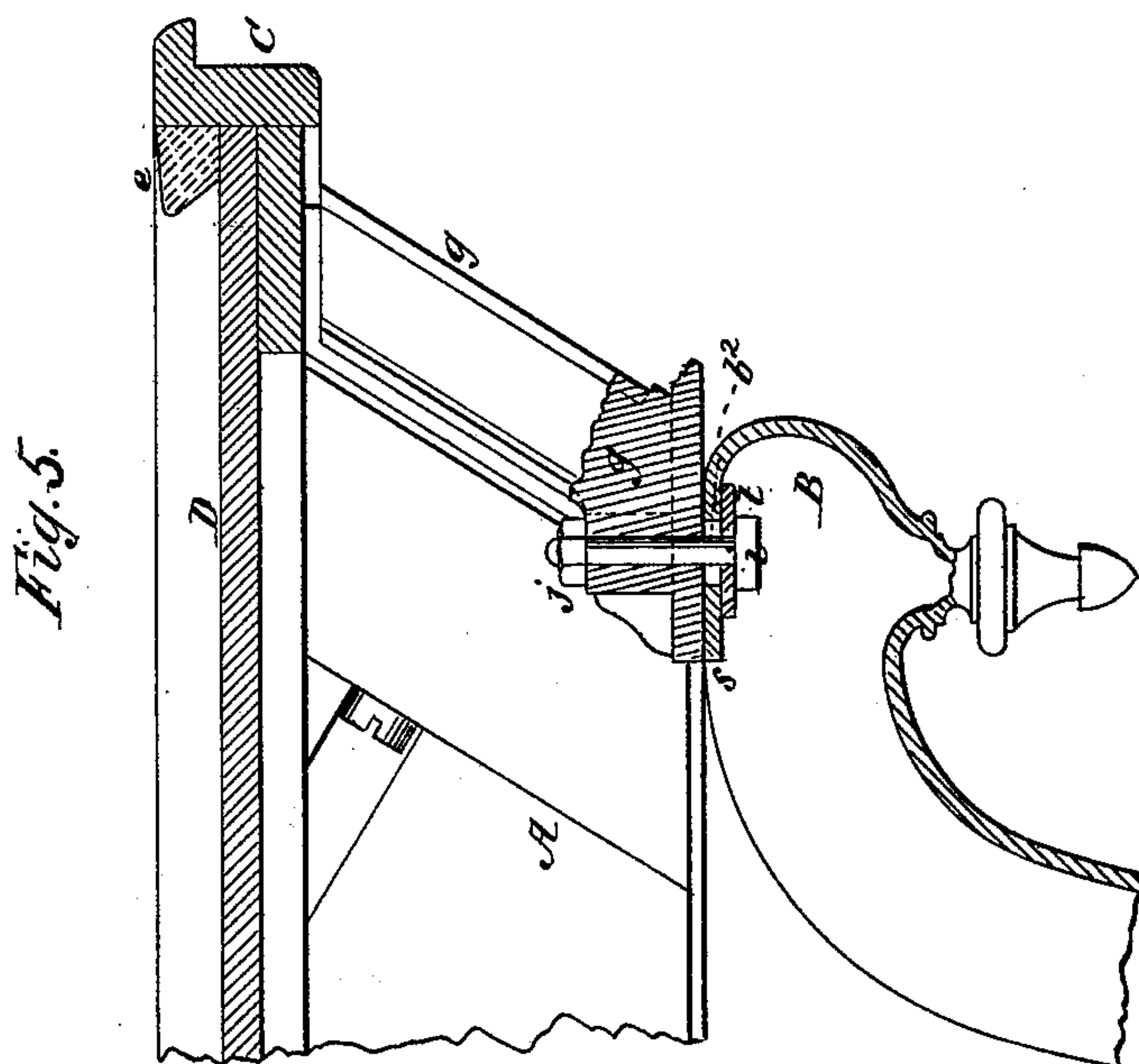
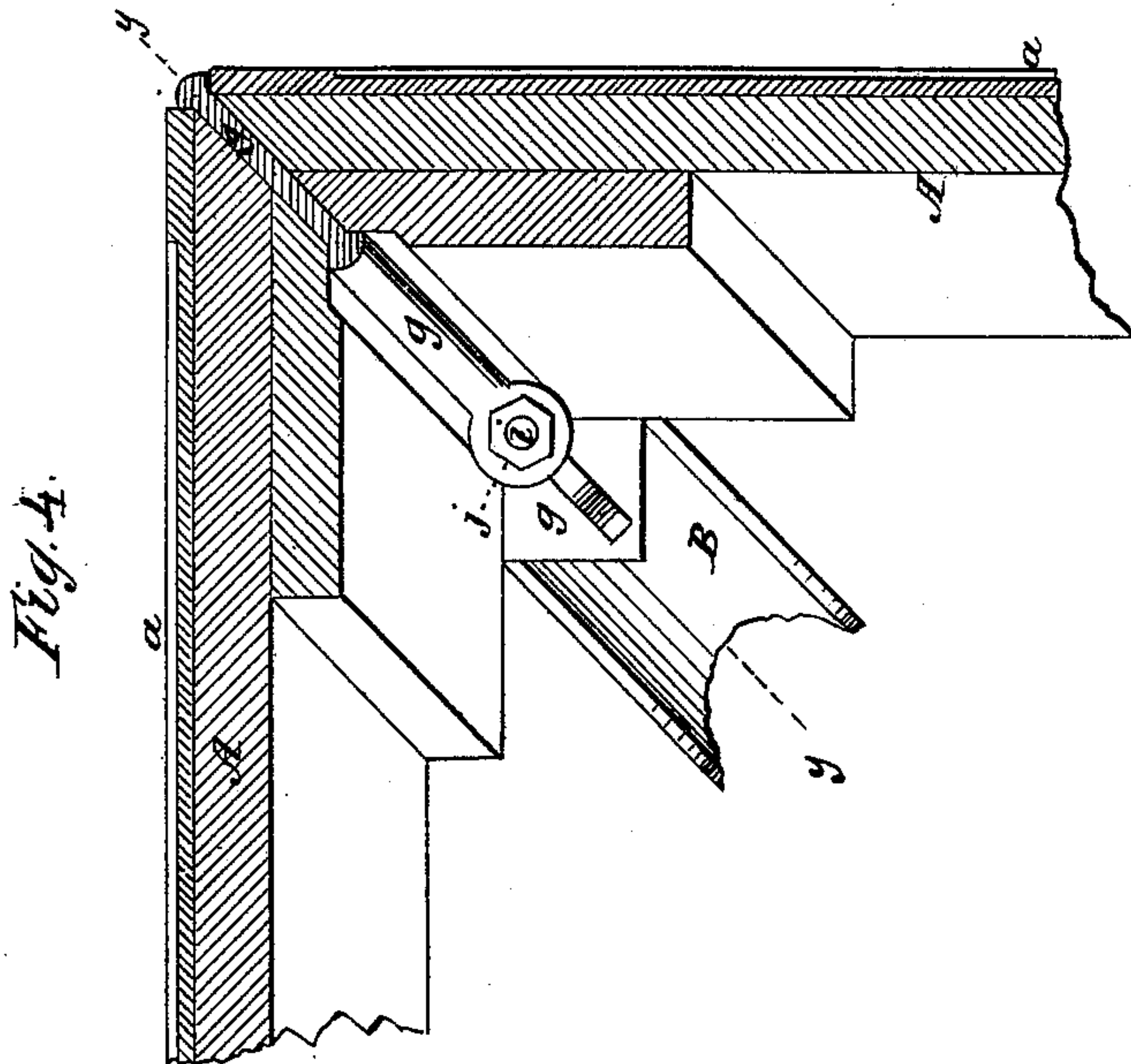
Inventor:  
Hugh W. Collender  
By atty.  
J. N. Mc Intire



H. W. COLLENDER.  
Billiard-Table.

No. 214,368.

Patented April 15, 1879.



Witnesses:  
E. Wolff.  
Jacob Felbel

Inventor:  
Hugh W. Colender  
my atty  
J. N. McIntire



# UNITED STATES PATENT OFFICE.

HUGH W. COLLENDER, OF NEW YORK, N. Y.

## IMPROVEMENT IN BILLIARD-TABLES.

Specification forming part of Letters Patent No. **214,368**, dated April 15, 1879; application filed February 6, 1879.

*To all whom it may concern:*

Be it known that I, HUGH W. COLLENDER, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Billiard-Tables; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

Previous to my invention billiard-tables have been made wholly of wood and wholly of metal; and it has also been customary to have the body of the table made of wood and supported by a cast-metal supporting frame-work or legs.

For both the body of the table and the legs (or body-supporting portion) the use of cast-iron is advantageous, in that either or both of these portions of the table may thus be made not only strong and durable, but also more highly ornamental in design than they can be made of wood at the same cost. The use of cast-iron for the body portion, or broad rails, of the table is, however, very disadvantageous in the particulars that not only must it be very heavy to get the requisite solidity for the bed-slabs and bed attachments, but it also presents practical difficulties in making and setting up (and resetting) the table, since the bed cannot be leveled after the frame-work is up by the usual and simple mode adopted in wooden framed tables of planing off the upper bed-supporting edges of the broad rails.

Another disadvantage in the use of cast metal wholly for the body as compared with a wooden body is that the greater amount of expansion and contraction of metal is apt to lead to difficulties in keeping the table in perfect adjustment—that is, when the metal body is made in parts and of a proper weight.

Of course the body of the table may be made comparatively light, and at the same time strong enough to properly support the weight of the bed; but then the disposition of the metal in the body must be such that the latter will be subject to vibrations, which will cause more noise (when the cushions are struck with much force by the balls) than in the case of a wooden body, and this is objectionable.

I have discovered that by properly combining inner wooden portions with cast-iron external portions in the construction of the body of a billiard-table I can make a table which, while it possesses all the most desirable characteristics of having a wooden body and of one having a cast-iron body, is comparatively free from the objections to either in the combined qualities that have to be taken into consideration—viz., simplicity and strength of structure, facilities for making and putting up, economy of manufacture, and the greatest degree of perfection in the designed uses of the table; and based upon this novel idea is my invention, which consists in a billiard-table the body of which is composed of an inner wooden frame, or frame-work, having combined with it outer cast-iron portions, so that while the table-body may involve the least weight commensurate with the necessary solidity and strength, it may be made highly ornamental in design at the least cost, and will possess all the advantages of the ordinary wooden body, so far as facility in putting up, leveling, and resetting the table are concerned, all as will be hereinafter more fully described.

To enable those skilled in the art to make and use my invention, I will now proceed to more fully describe the construction and operation of a billiard-table embracing my improvements, referring by letters of reference to the accompanying drawings, forming part of this specification, and in which I have shown, at—

Figure 1, in end elevation, a table made according to my invention; at Fig. 2, a vertical cross-section of the said table; at Fig. 3, an end elevation of another mode of carrying out my invention; at Fig. 4, a partial horizontal section at the line *x x* of Fig. 2 of a table the body portion of which is exactly like that seen at Fig. 3, while the leg portion is of the form of the table seen at Figs. 1 and 2; and at Fig. 5, a partial vertical section at the line *y y*, Fig. 4, of a table similar in form to that illustrated by the last-named figure.

In the several figures the same parts will be found designated by the same letter of reference.



A represents the body portion or the broad rails of the table; B, the legs or table-supporting frame-work or stand, as the case may be; C, the usual cushion-rails; D, the bed of the table, and *e* the cushions.

As seen most clearly at Figs. 2 and 4, each broad rail, or each side of the body, of the table is composed of an inner wooden rail or portion, A, and an outer cast-iron plate or portion, *a*.

The wooden rail A is made lighter and thinner than the broad rail of a wooden table-body, and the cast-iron plate or portion *a* (which is made plain and flat on the inner surface and of any desired ornamental shape or pattern at the outer portion) is fitted and secured to the wooden part A in any suitable manner which will insure the retention of these parts together, so that they will re-enforce each other, while at the same time the uneven expansion and contraction of the two different materials of which they are composed will be permitted.

In that form of table seen at Figs. 1 and 2, the compound metal and wood broad rails A *a* are either bolted together (on a miter joint) at each corner of the body, or are secured to corner-blocks at said corners, and rest upon and are secured to the upper portions, *s*, of the cast-iron frame-work B, which latter is formed with ornamental corner portions (best seen at B<sup>2</sup>, Fig. 1) that cover the four joints of the body A.

In the other two forms of table shown respectively at Fig. 3 and at Figs. 4 and 5, the compound broad rails are bolted together (on a miter) at each corner and to a cast-iron corner-plate, with which they interlock after the fashion of a mode of construction for wooden body tables patented to me on the 16th day of November, 1875.

In each of these two last-named forms of table the compound rails A *a* are made fast at each of the four corners of the table to each other and to the interposed cast-iron corner plate or stand *g*, which latter is secured, by a vertical bolt, *i*, and a nut, *j*, to the top part, *s*, of the leg-stand B, (or leg B, as the case may be,) and to permit the setting up of the table with facility, and any necessary adjustment of the body portion of the table (endwise or laterally) on the part that supports it, where the latter is cast and put together after the fashion seen at Figs. 1, 2, 4, and 5, the holes in the portions *s* of the leg-stand should be considerably larger than the bolts *i*, or they may be made of slot form; and, if necessary, a washer, *t*, may also be used, so that the bolts *i*, in order to properly engage with the parts *s*, may not be confined to four given or fixed points of the leg-frame B.

The cast-iron plates *a* of the broad rails are made somewhat narrower than the wooden portions A, and these two parts are put to-

gether so that the wooden portion shall project above the metal portion. This is necessary and important for two purposes—first, in order that in setting up and resetting the table the top surface of the broad rail may be easily planed off, as may be required, to set the bed-slabs level; and, second, in order that when the slabs are screwed fast to the tops of the broad rails, and the cushion-rails C are, in turn, bolted to the slab-frames, the metal parts *a* may not be in direct contact with the bed, as thus the noise which is incident to any contact of these parts when the balls strike the cushions with considerable force is avoided.

It is desirable to have only the wooden portions of the broad rails come in direct contact with the cast-iron leg-frame B (or legs where the latter are used) at the lowermost portions of the table-body, for by keeping the metal plates or castings of the compound broad rails out of actual contact with the leg portions the table will be less noisy when the balls are played hard against the cushions.

Of course the body of the table should have suitable cross beams or braces, as at *f*, and the forms of the various parts and the details of construction may be varied, according to the desire of the manufacturer, and to suit the size and design of the intended manufacture, without departing from the spirit of my invention; and, though more particularly adapted to and intended for use in the manufacture of tables having cast-metal legs or leg-frames, my invention may be embodied with great if not equal advantage in tables having wooden legs.

It will be seen that by making the table-body according to my invention all the exterior portions of the table (from the feet up to the cushion-rails) may be made highly artistic in appearance, both as to configuration and surface ornamentation, at small cost compared with a table of similar appearance made wholly of wood, while at the same time the table may be made even lighter than an all-wood table, and capable of supporting more solidly the bed and cushion-rails, so that the table will be less noisy and more desirable in every way.

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

A billiard-table the body of which is composed of an inner wooden frame or frame-work having combined with it outer metallic plates or portions, substantially in the manner and for the purpose hereinbefore described.

In testimony whereof I have hereunto set my hand this 4th day of February, 1879.

HUGH W. COLLENDER.

In presence of—

JACOB FELBEL,  
W. V. COLLENDER.