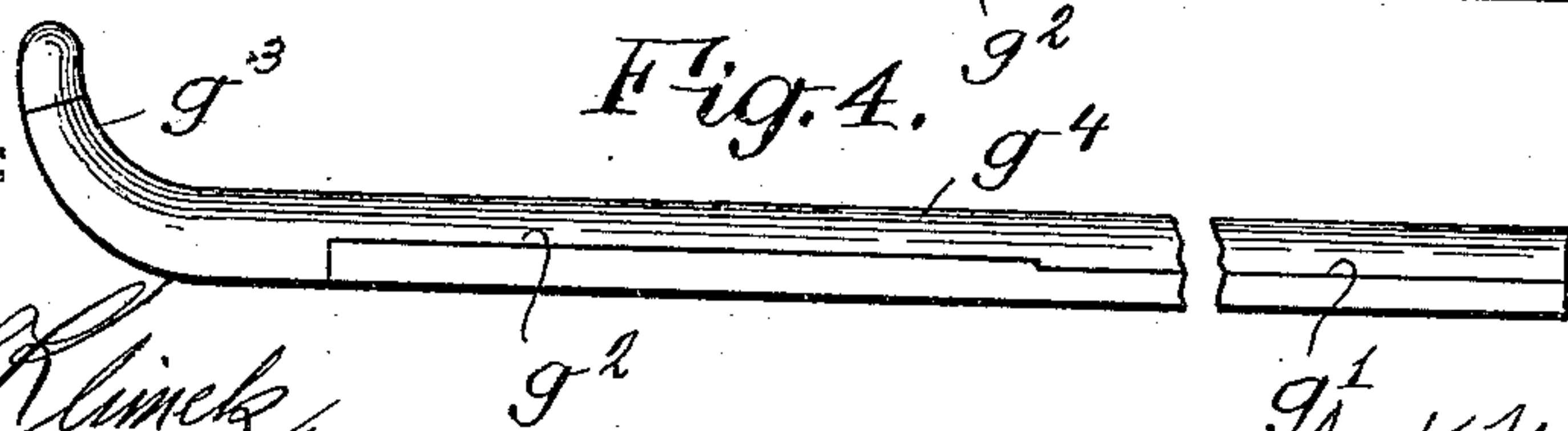
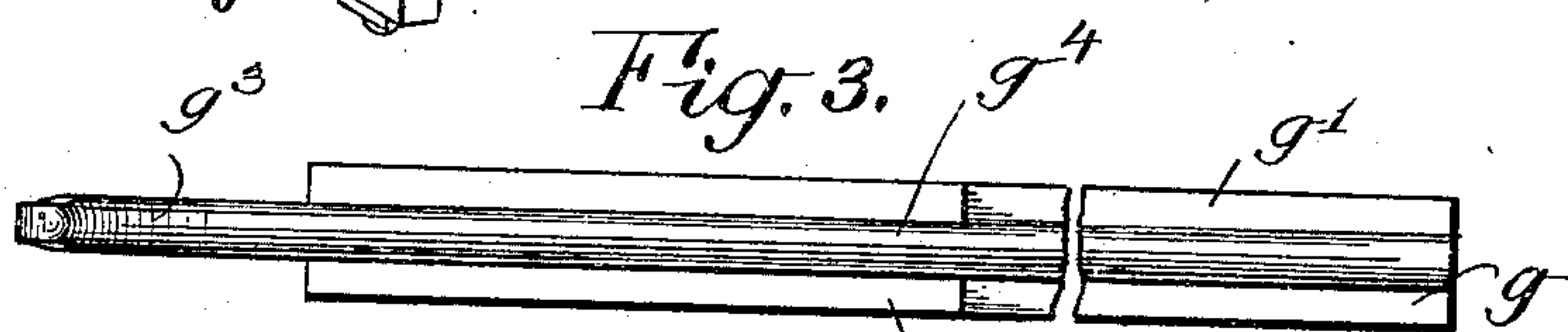
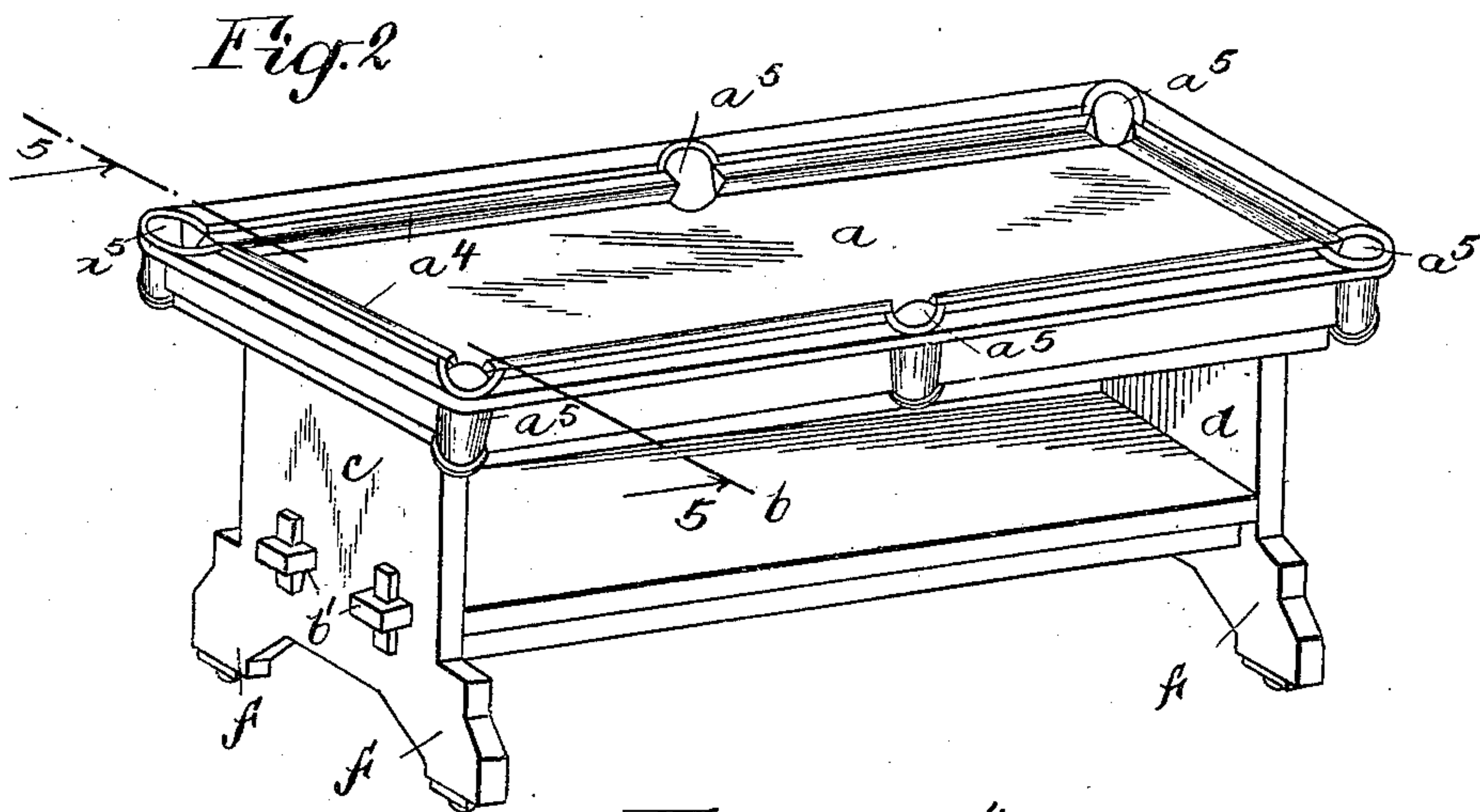
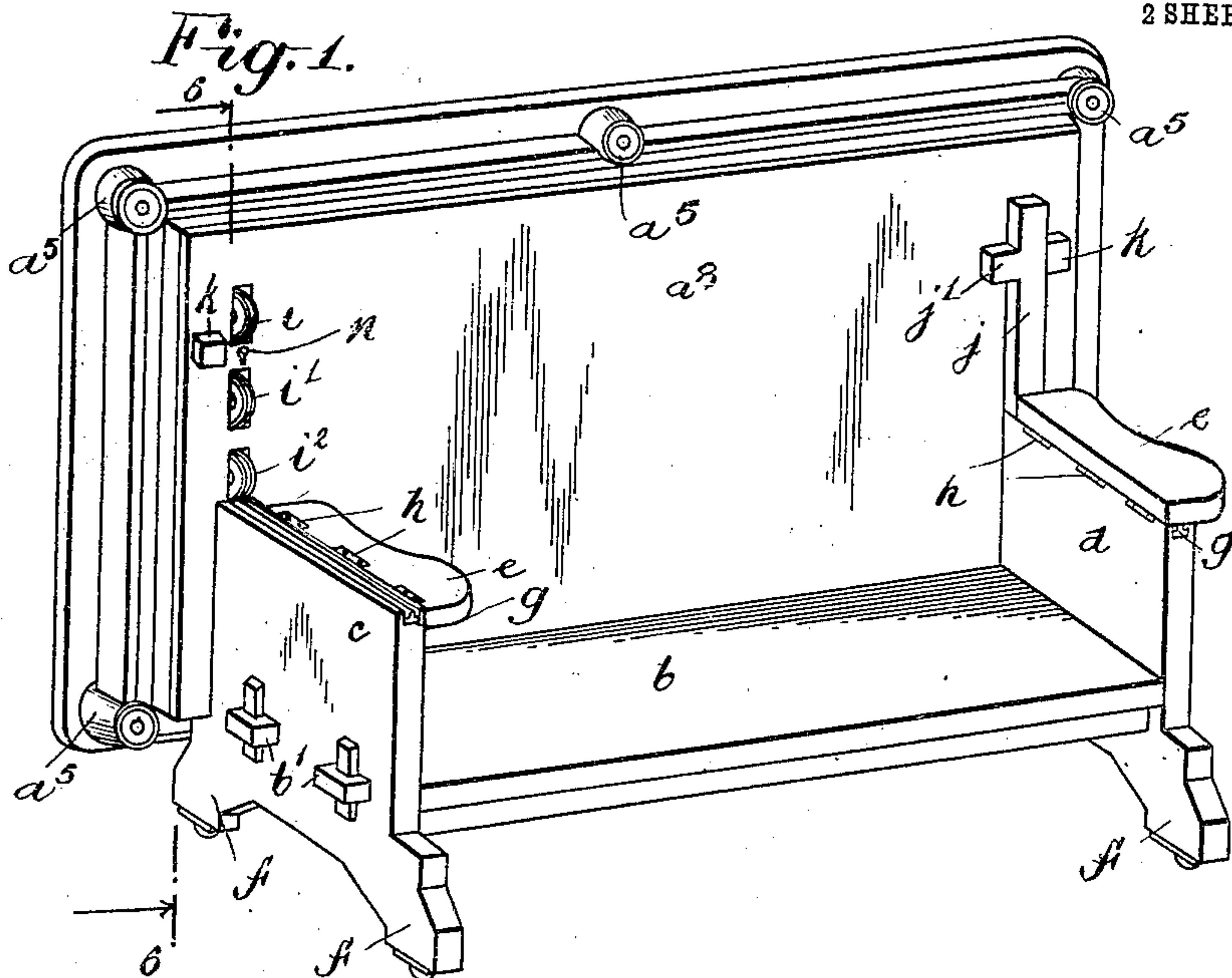


J. N. McINTIRE.
 COMBINED SOFA OR SETTEE AND POOL OR BILLIARD TABLE.
 APPLICATION FILED JUNE 29, 1908.

921,725.

Patented May 18, 1909.

2 SHEETS—SHEET 1.



WITNESSES:

INVENTOR

G. A. Kline
G. L. Blume

J. N. McIntire

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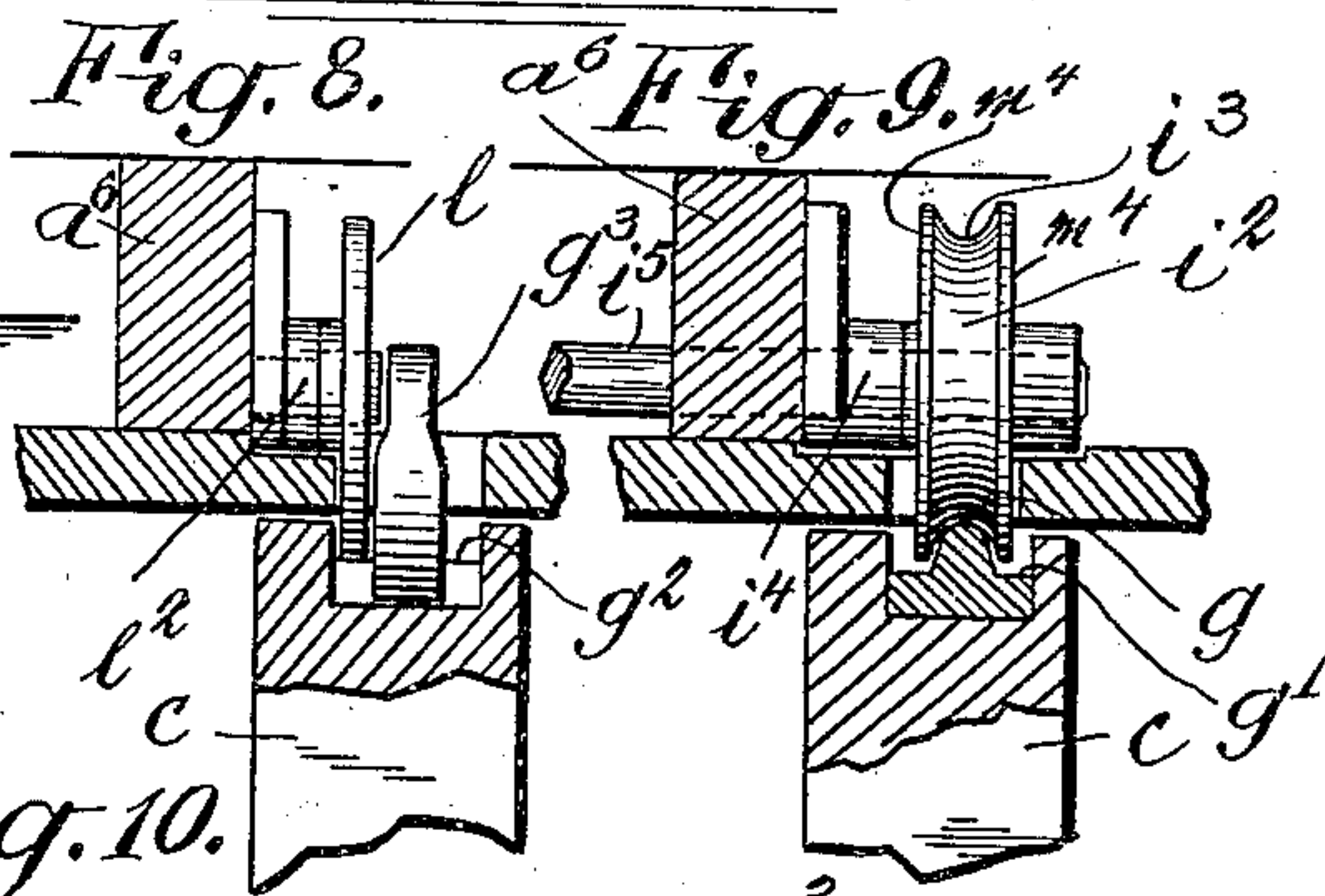
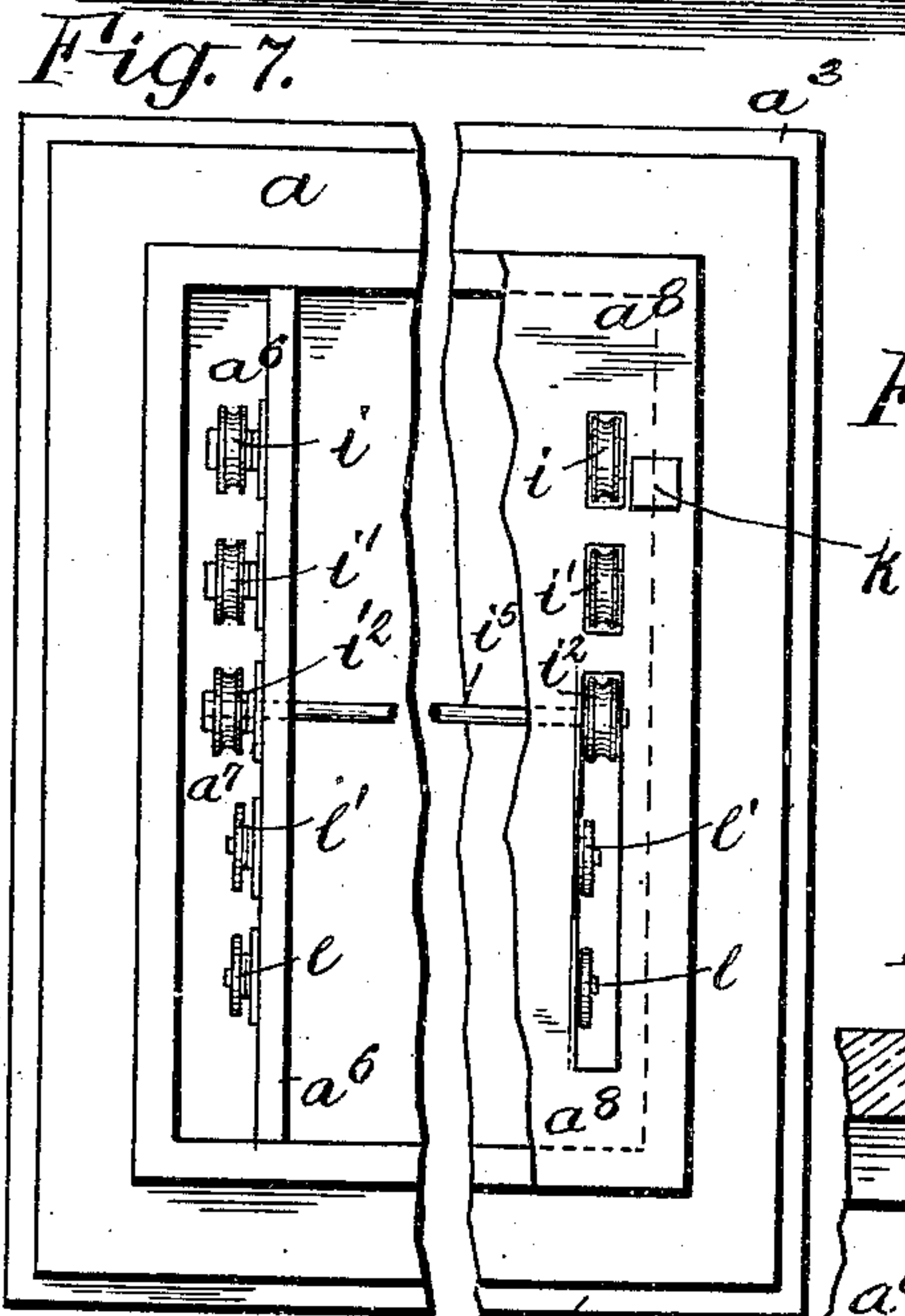
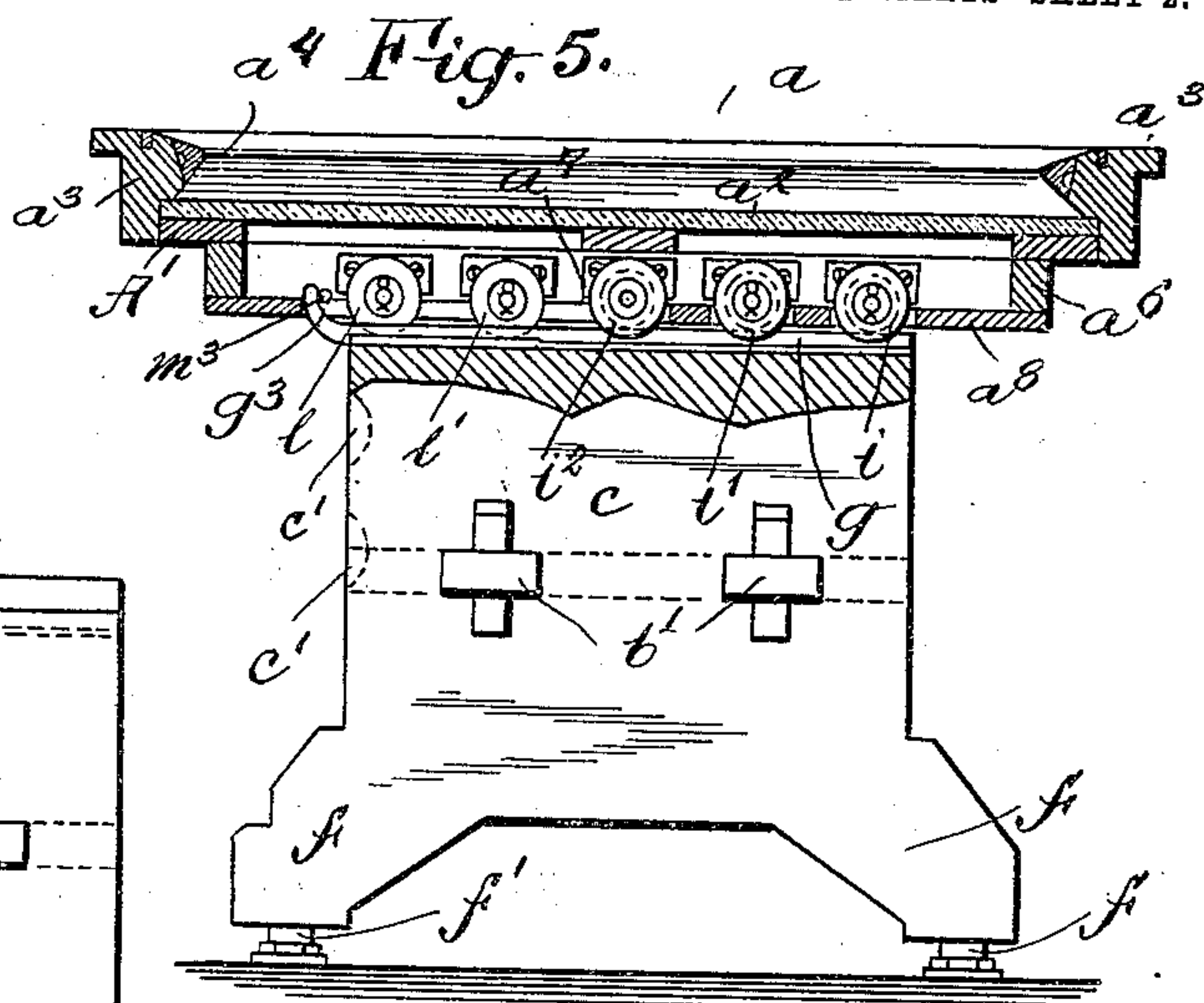
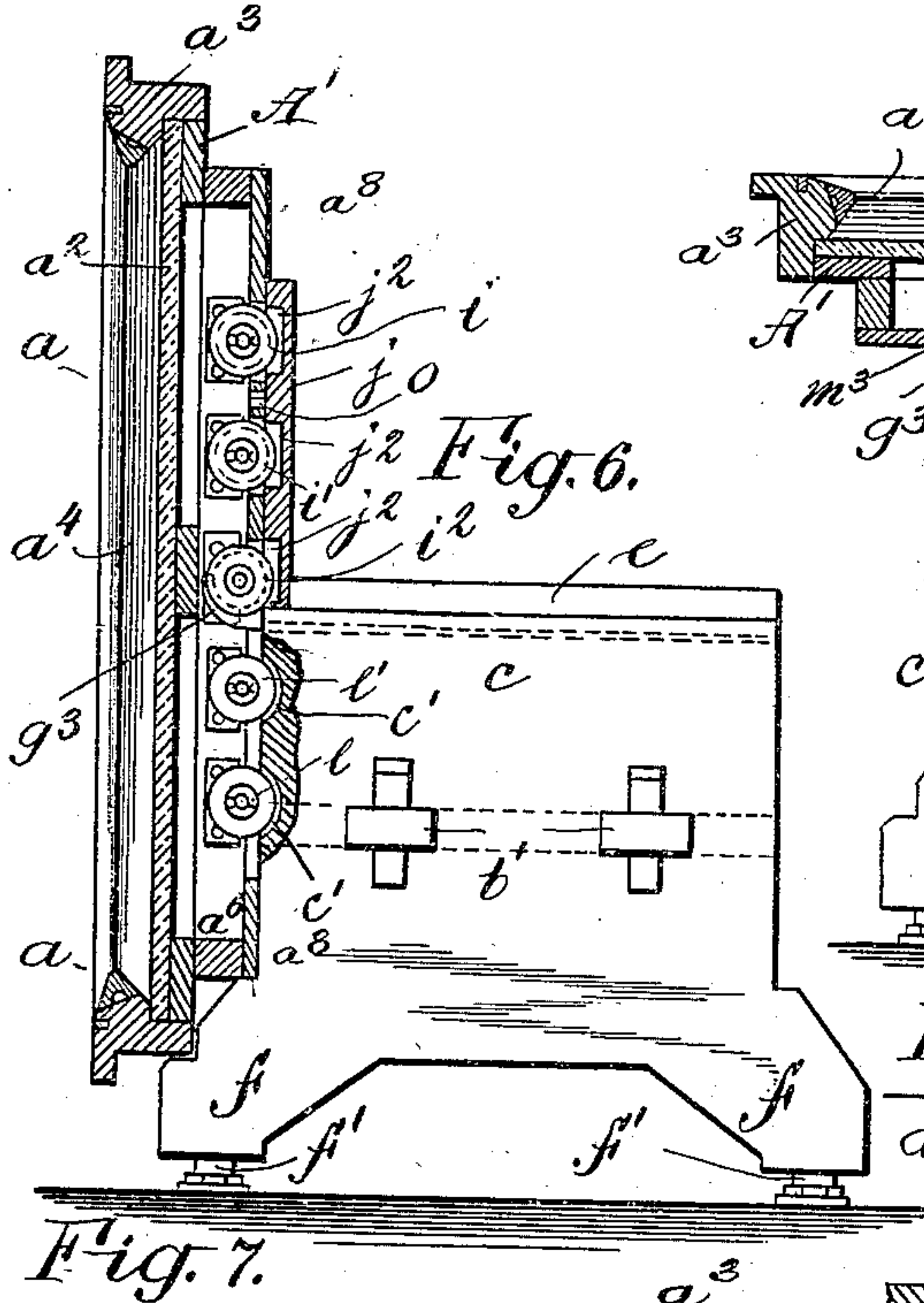
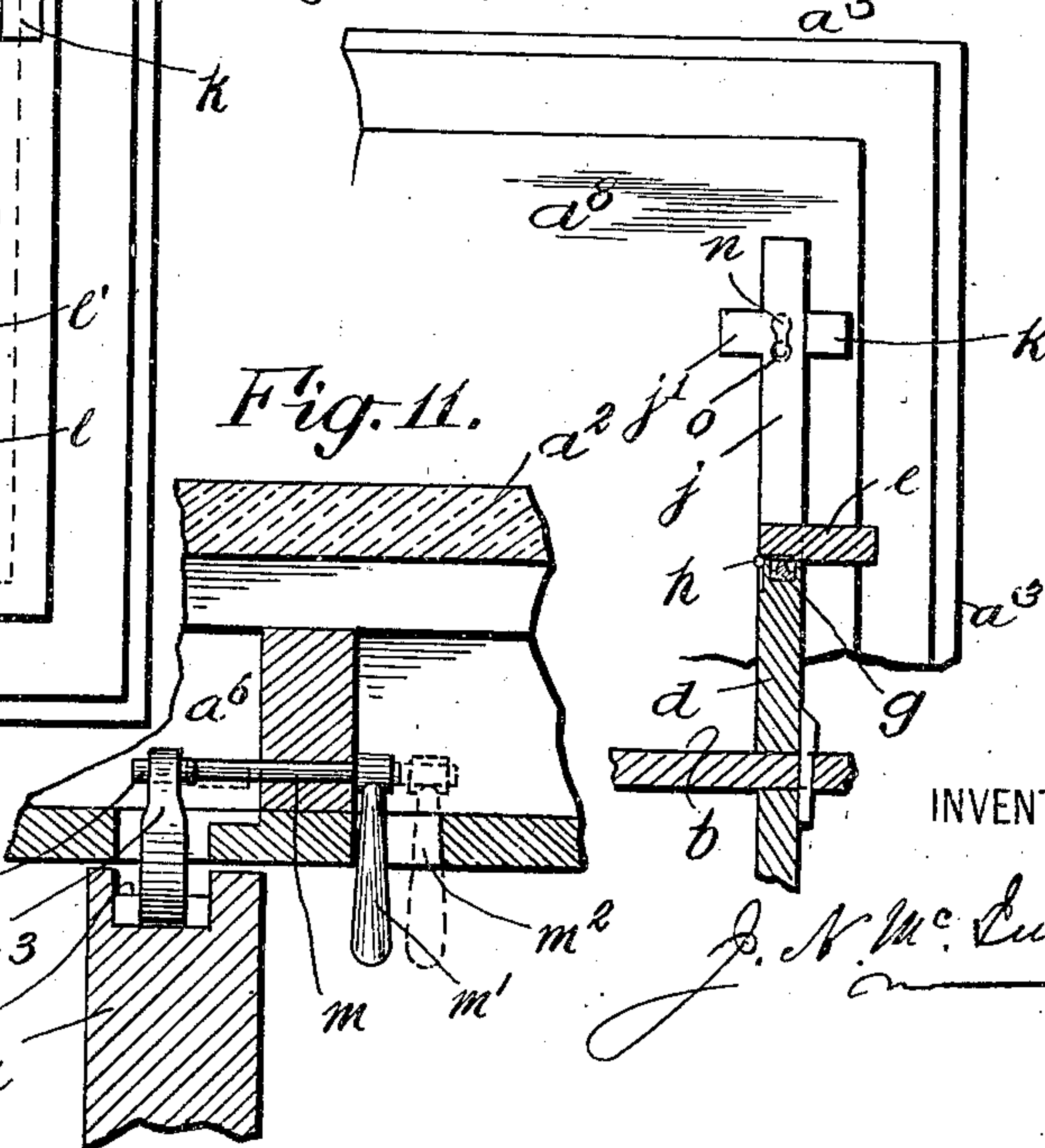


Fig. 10.

Fig. 11.



WITNESSES:

D. A. Kimbrey
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INVENTOR

J. N. McIntire

UNITED STATES PATENT OFFICE.

JACOB N. MCINTIRE, OF NEW YORK, N. Y., ASSIGNOR TO THE BRUNSWICK-BALKE-COLLENDER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF OHIO.

COMBINED SOFA OR SETTEE AND POOL OR BILLIARD TABLE.

No. 921,725.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed June 29, 1908. Serial No. 440,788.

To all whom it may concern:

Be it known that I, JACOB N. MCINTIRE, a citizen of the United States, residing in the city of New York, in the county of New York and State of New York, (whose post-office address is Box 1089, New York city, New York,) have invented certain new and useful Improvements in a Combined Sofa or Settee and Pool or Billiard Table, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

My invention relates to that article of furniture known as "a combination sofa or settee and pool or billiard table;" in which there is one main part which constitutes the seat and end-portions (or arm-like parts) of a settee; and another main portion which, when adjusted in one (a vertical) position, relatively to the first named part, constitutes the back-portion of the sofa or settee; and when adjusted into another (horizontal) position, serves the purposes of a game table.

U. S. Letters Patent, to me, of September 18, 1906, No. 831,392, shows one form of this kind of combination sofa-table; and U. S. Letters Patent to me of February 11th, 1908, shows another; and the main, or only substantial difference, between these two constructions lies in the manner of making and combining the coöperative parts of the translatable sofa-back and table bed; and those of the sofa or settee end-portions, on top of which the translatable portion of the article is supported, when said translatable part is set in the horizontal position.

In my earlier patented construction the sofa-back (and table bed) is oscillated about the axes of two peripherally grooved wheels, mounted fast on a shaft in the bed, located slightly in rear of the center of the latter, widthwise, that travel thereafter, as the bed is rolled along horizontally into its final position, on V-shaped ways, mounted fast on the tops of the settee end-pieces, and extending nearly to the middle points of said end-pieces tops; while a pair of flat-faced, smaller wheels, or idlers, also mounted in the bed, roll on flat-faced forward extensions of said ways. And both the V-shaped portions, or ribs, and the flat-faced portions of the said ways, or tracks, have depressions, or cavities therein, into which both the larger, peripherally grooved, track-wheels and the smaller flat-faced bed-supporting wheels descend,

when the bed shall have been rolled forward, horizontally into its final position; so that the bottom surface of the bed portion of the article then gravitates onto the top surfaces of the two wooden end-pieces of the settee part of the article; to be by them directly sustained, firmly, for use.

The construction of my later patented device substantially differs from the first one only in that the back-bed portion of the article is provided with two sets of peripherally grooved track wheels; the metallic ways, or tracks, that are mounted fast on the tops of the end-pieces of the settee portion of the article, are formed with V-shaped ways extending the whole length, respectively, of the track pieces, and have no depressions in them, to permit the bed, when it arrives at its final horizontal position, to descend onto, or contact with, the top surfaces of the sofa end-pieces; and be directly sustained vertically by them; but, to firmly support the bed, in its final position, indirectly by said settee end-pieces, there is combined with the latter and the bed, an operating, or working mechanism which is automatically brought into play—as fully shown and described in my said patent—which effects an indirect, but firm support of the bed from the said settee end-pieces.

The reason why, in both these former constructions, the bed must be either directly—as in the earlier case—or indirectly sustained by the wooden settee end-pieces, is that under both constructions, no supporting wheels, adapted to coact with the track-rails, can be located, in rear, so to speak, of those which are located near the middle of the bed, widthwise; since this set of, grooved, wheels has to travel back to and engage with the upturned rear ends of the track-rails; and without any supporting wheels back of this middle set, if the bed were left unsupported, in some way, from the wooden settee end-pieces, during the rear half of its width, it would, when in its final horizontal position, tip down at its rearmost side, or rock slightly on its middle set of wheels, whenever the least downward pressure should be exerted on top of its rear edge—as in the case for instance, of the billiard player pressing down on it casually, or as he has to do when making his bridge to play a stroke at the rear side of the bed.

In the construction made the subject of

this application, I have, it will be presently seen, so made and mounted the translatable bed, with a greater number of, differently made, track-wheels; and have so made the track-rails of the settee end-pieces, that when the sofa-back (and table bed) shall have been oscillated into the horizontal position, and then rolled forward, the additional track-wheels thereof will coact with certain flat-faced portions of the two (differently made) track-rails; and remain in contact therewith till the bed shall have been rolled into its final position; and will then serve to firmly support the rearmost portion (width-wise) of the bed; that, in both of my patented contrivances, has to be either let down, onto the settee end-pieces for support, or has to be sustained indirectly by said end-pieces, through the medium of an automatically operated reinforcing mechanism. And by this novel method of construction, I am enabled to arrange, or locate, that set of the peripherally grooved wheels of the bed which, in both of my patented articles, has to be placed a little to one side of the center, width-wise of the bed, exactly at the center; whereby I am enabled to exactly balance the, heavy, bed (when in a horizontal position) on this, centrally located, set of track-wheels; which renders the translatable bed easier of translation from the horizontal to the vertical position; and, hence, makes the convertible article more convenient of manipulation by the user thereof.

My present invention may, therefore, be said to consist in a combined settee or sofa and pool or billiard table, involving the novel construction, or the novel devices and combinations of parts which will be hereinafter fully described; and which will be most particularly pointed out in the claims of this specification.

To enable those skilled in the art to which my improvements relate, to make and use a combination piece of furniture comprising either wholly or partially my improvements therein, I will now proceed to fully describe the construction and operation of my improved article, by reference to the accompanying drawings, in which I have shown my said invention carried out, as to the various parts thereof, in that precise form in which I have, so far, successfully practiced it; although it will be understood that, with reference to some of the structural features, mere modifications or colorable variations may be made, without departing from the spirit of my invention; and that some of the structural features may be omitted, and only the rest employed, with more or less advantage.

In the drawings, Figure 1 is a perspective view of my improved article of furniture, with its two main portions so relatively adjusted, as to adapt it for use as a sofa or settee; and, in this figure, I have shown one

of the two hinged or movable arm-pieces in its proper position for use, at the right hand end of the figure,—while at the left hand end of said figure, I have shown the other hinged arm turned into the position to which it has to be adjusted in order to translate the bed-portion (or back-part of the sofa) into a horizontal position, to adapt the article for use as a game-table. And I have also, in this figure, shown that a certain detachable piece or part, (at the left hand side) is removed or detached; as it has to be, to permit such translation of the sofa back into such horizontal position. Fig. 2 is a perspective view of the article, with its two main portions adjusted or placed, relatively, in the positions in which they have to be, to use the article as a pool or billiard table. Fig. 3 is a partial top view, enlarged scale, of one of the metallic track-rails, detached. Fig. 4 is a similar view, in side elevation, of the same part. Fig. 5 is a vertical sectional view taken in a plane indicated by the dotted line 5—5 at Fig. 2. Fig. 6 is a vertical sectional view taken in a plane indicated by the dotted line 6—6, at Fig. 1. Fig. 7 is a partial bottom view of the table bed and sofa-back portion of the piece of furniture, removed or detached from the settee, or sofa part. Figs. 8; 9; 10; and 11 are, respectively, detail views, on an enlarged scale, to show certain structural features, and to be hereinafter specifically referred to and described.

In the several figures of the drawing, the same part will be found always designated by the same characters of reference.

c, *d*, are the two end-pieces; and *b*, is the seat of the sofa or settee portion of the article; which parts are, preferably, framed together in about the usual manner, (as clearly shown) with wedge-keys *b'*, which draw and firmly hold together each end of the said seat portion *b*, and each one of the two end-pieces *c*, *d*, of the settee.

The game-table portion of the piece of furniture,—which, as a whole, is lettered *a*,—is composed of a bed-frame *A'*, on which are mounted and to which are secured the slate slabs *a²*, that are finally covered with the ordinary green or “billiard” cloth; all in substantially the usual manner of making a billiard or pool table bed; and at *a³*, are shown the cushion-rails, carrying the billiard or pool table cushions *a⁴*; all in a manner well known; while, in the case shown the game table, being designed for use as a pocket table, there are formed, at each corner of the bed and in the middle of each one of its two longer sides, pockets *a⁵*; of the ordinary construction.

What has so far been remarked as the “table bed”, comprising the usual frame with its slate slabs, is, it will be seen, supplemented, beneath or at the lower surface of the bed-frame proper, with cross beams

a^6 , in which is mounted, to freely rotate in suitable metallic bearing-boxes a^7 , (see Fig. 5) a metal shaft i^5 , which carries two peripherally grooved wheels i^2 , mounted fast thereon; all as plainly shown; while a^8 , is a bottom board to the bed structure, which, when the latter is turned into its substantially vertical position, constitutes the wooden back of the settee or sofa; and a^9 , is a sort of apron-like, wooden, casing; which incloses, or closes up, the space between the interior surface of this bottom board a^8 , and the adjacent surface of the bed-frame proper, A' .

Each one of the grooved wheels i^2 , just referred to, is made fast to the shaft i^5 , on which it is mounted, preferably, by a set-screw.

g, g , are two metallic rails or wheel-tracks, each of which is of the peculiar shape or conformation shown in the drawing; and each of which is let down into the wood-work of the upper end of one of the arm-like portions c, d , of the sofa; to which it is securely fastened by wood-screws, or otherwise, to an extent sufficient to permit the table bed to travel horizontally on the said stationary track-rails without having its lower surface touch the top surfaces of the sofa end-pieces.

As will be readily seen, the bottom board a^8 , of the table bed is cut away, or cut through, at certain localities to permit a slight protrusion through this bottom board of each one of the grooved wheels i^2 , while at i, i' , are located, so as to similarly protrude, peripherally, through the said bottom board of the table bed, two grooved wheels similar to wheel i^2 ; which turns freely on arbors or studs, preferably, integral with cast brackets, secured to one of the cross-beams of the wooden bed-structure.

Each one of the track-rails g , is formed, as shown, at its rear end, with a curved, upwardly projecting portion g^3 ; and each one of these rails is also formed with an upwardly projecting rib g^4 , running its whole length, on each of which ribs rides or travels one of the set of two grooved wheel i^2 (see Figs. 5, 6 and 7) that are mounted fast on shaft i^5 ; and also the two peripherally grooved idler track-wheels i, i' that are located forward of the wheels i^2 . And each of said track-rails has a flat base portion that projects laterally from the lower part of the integral rib g^4 ; and while the forward portion g' of this base part (see Figs. 3 and 4) performs no function co-active with any of the track-wheels of the table bed, the rearward part g^2 of this track-rail base, which, purposely has its top surface a little higher than that of the part g' , serves as the track upon which travel two of the set of four track wheels l, l' , that are located, as seen, in rear of the main, central, set of wheels i^2 . These wheels, l, l' , are mounted to rotate, as idlers, on short arbors, or spindles

that are integral with metallic stands which are securely bolted to the same cross beams a^9 of the bed structure (see Fig. 7) to which are fastened the stands that carry the forward grooved, track wheels i , and i' ; but unlike all the other track wheels, these four lettered l, l' , have flat peripheries; are arranged slightly lower down in the bed than are the six grooved wheels; (that travel on the ribs g^4 of the track rails) and roll on the top surfaces of the slightly elevated base portion g^2 of the rails—see Figs. 5, 7 and 8.

The only object in casting the track-rail with the surface at g^2 a little higher than that at g' , is to save machine work in finishing up the rail, as thus cast, only so much of the top surface of the rail's base as is indicated by g^2 has to be finished up—by planing or milling—for the wheels l, l' , to ride on. But the purpose of having these four wheels placed a little lower down than the peripherally grooved wheels, is that the perimeters m^4 of the flange-like parts of the latter will not contact with the surfaces g^2 on which the flat-faced idlers l, l' , roll, when the bed is rolled backward to the point at which the central set of grooved wheels i^2 become seated in the upturned rear ends g^3 of the track rails; at which point the horizontal bed is in position for oscillation into the vertical condition seen at Figs. 1 and 6.

A visual inspection of the detail view Fig. 9, will make clear how the grooved wheels i^2 (as do all the other grooved wheels) roll on the ribs g^4 of the track-rails, with the peripheries of their flange-like parts m^4 distant from the surfaces g' of the rails, while an observation of Fig. 8 will make plain why the wheels l, l' which have the same extreme diameter as those i^2 , must be located lower down, to ride on the surfaces g^2 , while the parts m of the grooved wheels, (to follow,) are to clear these surfaces g^2 and contact only (in their grooves) with ribs of the track-rails.

Inasmuch as the shifting sofa back and table bed portion of the combined sofa-table, herein shown and described, is wholly supported on the track-rails of the end pieces of the settee portion of the piece of furniture, when in position for use as a game table bed, through the media of the five sets or pairs of track-wheels, all of which are perfectly free to rotate on their axes, and are purposely made so that the least possible applied force to the thus positioned bed will move it on its wheels, it follows that the table bed, when in place for use, must be securely locked against any movement, either backward, or forward. This is attained by the upturned rear ends g^3 , of the track rails forming positive stops, against any forward movement of the bed, after it shall have been rolled to its final horizontal position, as clearly seen at Fig 5. And any backward

movement is prevented by the engagement with the opposite, vertical, surfaces of said upturned rail-ends g^3 , of the eccentric locking-pins m , m^3 (see Figs. 5 and 11) which, by manipulation of their handles m' , are first moved lengthwise, so as to obstruct any backward motion of the bed relatively to these stationary prongs of the track-rails, and are then turned on their axes to bring their eccentric end portions to tight fits against the parts g^3 of the rails. This locking mechanism is most clearly illustrated at Fig. 11, and it is substantially identical with that disclosed in my Patent No. 878,555.

In the construction of sofa-table herein shown, and described, the general mode of operation of the two main portions of the article, in effecting the transformation from a settee to a pool table and vice versa, is about the same as that of my patented convertible sofa-tables; but, as hereinbefore explained, in my present, improved, article, the alternate sofa back and table bed works differently in that, first, by reason of the bed, when in a horizontal position; but pushed back till the central grooved wheels engage the upturned rear end portions of the track rails, being exactly balanced on the axes of said wheel, it can with the greatest possible ease be oscillated to turn it into the vertical position. And second, by reason of the bed being provided with track-wheels at that portion of it in rear, so to speak, of the centrally placed set of wheels, (as well as with other wheels in front of them) arranged to travel and remain on the track-rails, as explained, until and after the bed shall have been rolled into its final horizontal position, the bed is firmly supported, throughout its whole width, on the track-rails of the sofa end-pieces without the employment of any supplemental device to render the concrete article, either more expensive to make and more complicated, or to make it less convenient to manipulate the translatable part, in transforming the settee into a game table and vice-versa.

What I claim as new and desire to secure by Letters Patent is:

1. In a convertible settee-game table, the combination, with one main portion comprising a seat and end parts; and another main part comprising a game table bed, of track-rails securely fastened, respectively, to the tops of said settee end parts having rearward flat-wheel surfaces and also having upwardly projecting rear ends; a set of peripherally grooved wheels mounted on a shaft arranged in and approximately centrally, widthwise, of the bed structure and adapted to travel on said track-rails; and to engage the said upwardly projecting rear ends of the track-rail; and a set of flat-faced track wheels arranged in the bed, which travel on the rearward, flat surfaces of said track-rails; all substantially as and for the purposes hereinbefore set forth.

2. In a convertible sofa-billiard table, of the type shown, the combination, with the usual seat and end pieces of the sofa part; and the usual translatable sofa-back, and game table bed, of track-rails mounted on the tops of said end pieces, and having upturned rear ends; a set of track-wheels mounted on a shaft in the bed and located about centrally, widthwise, thereof; a set of track wheel idlers also mounted in the bed and adapted to travel on said track-rails to about their forward ends; and another set of track-wheel idlers, also mounted in the bed, at such locality widthwise of the latter that, when the latter shall have been rolled into its final horizontal position, for use, the said set of track-wheels will rest on, or contact with, the said track-rails close to their rearmost ends; all substantially as and for the purposes set forth.

In witness whereof I have hereunto set my hand this 27th day of June, 1908.

J. N. McINTIRE.

In presence of—

EDWARD F. BAYER,
MICHAEL CORCORAN.