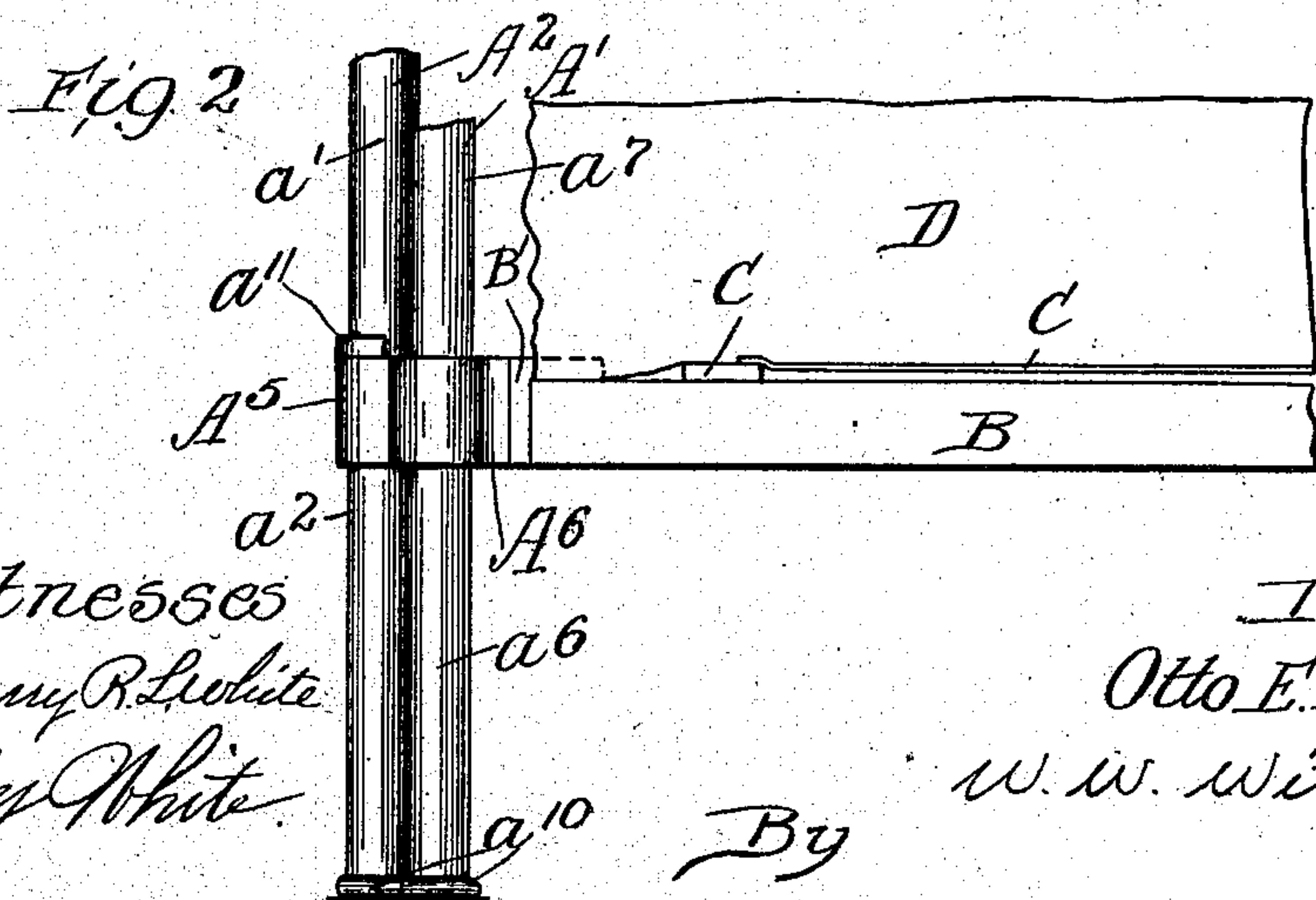
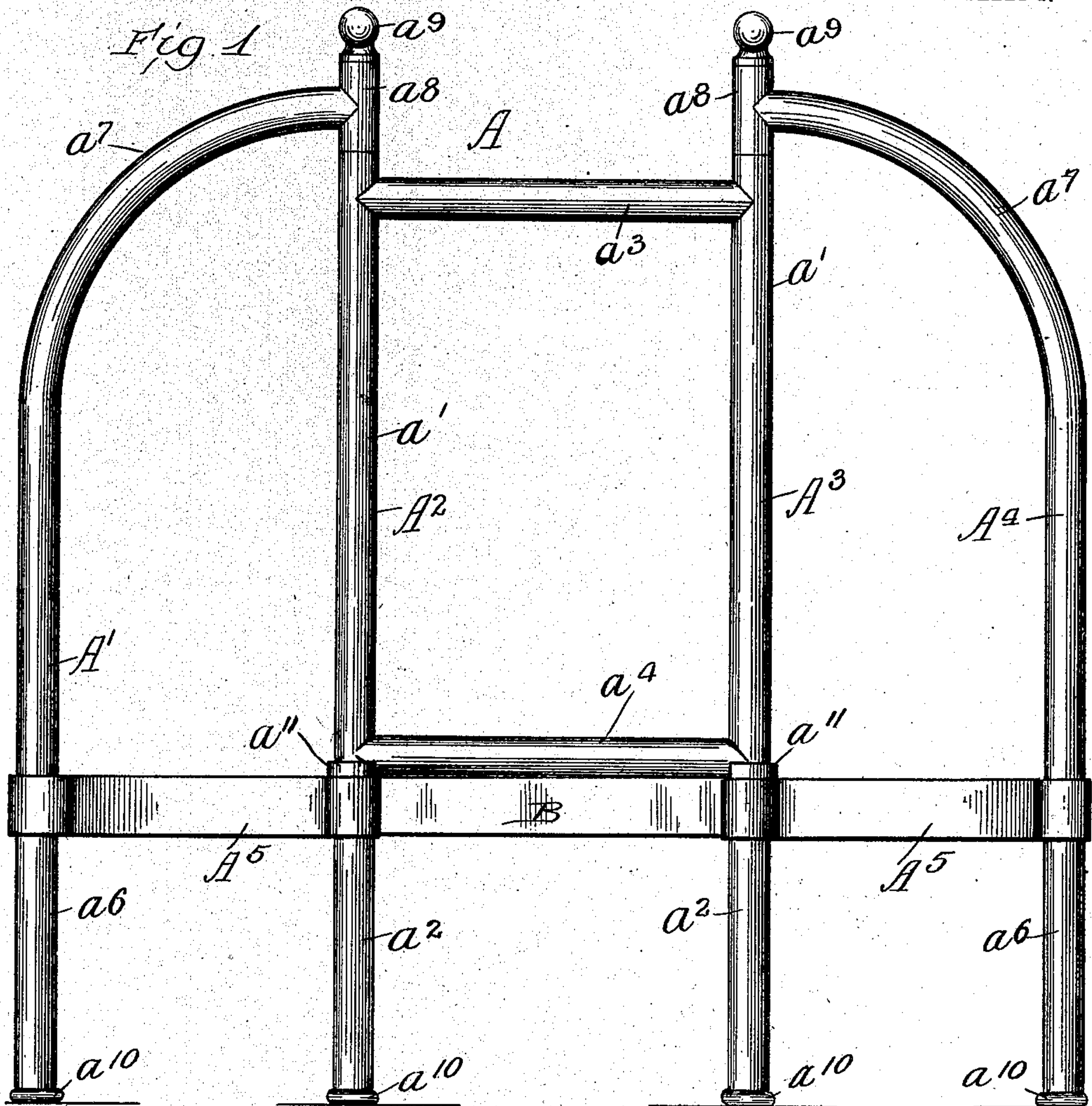


900,157.

O. E. ENELL.
FOLDING BED.
APPLICATION FILED NOV. 15, 1906.

Patented Oct. 6, 1908.

3 SHEETS—SHEET 1.



Witnesses
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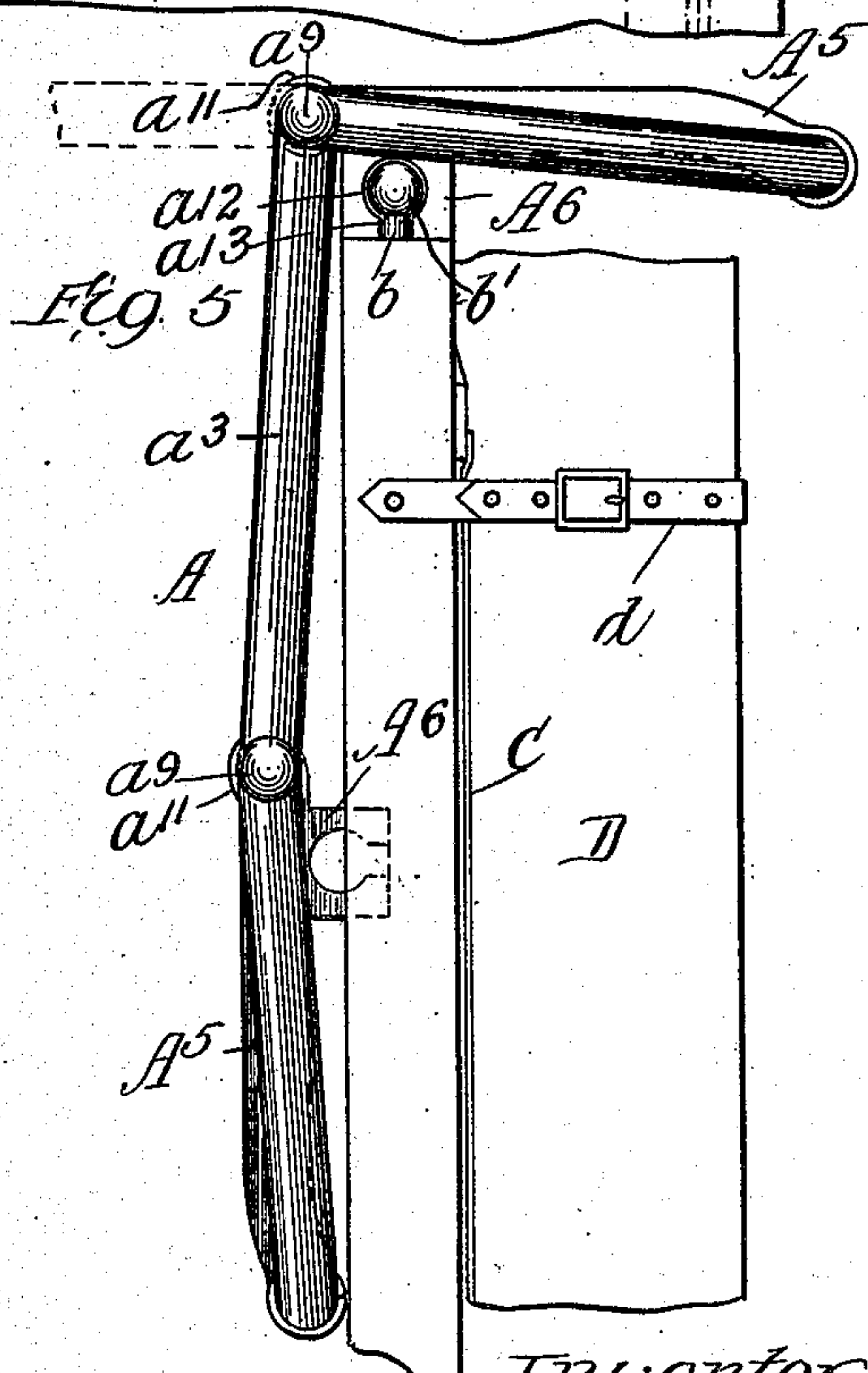
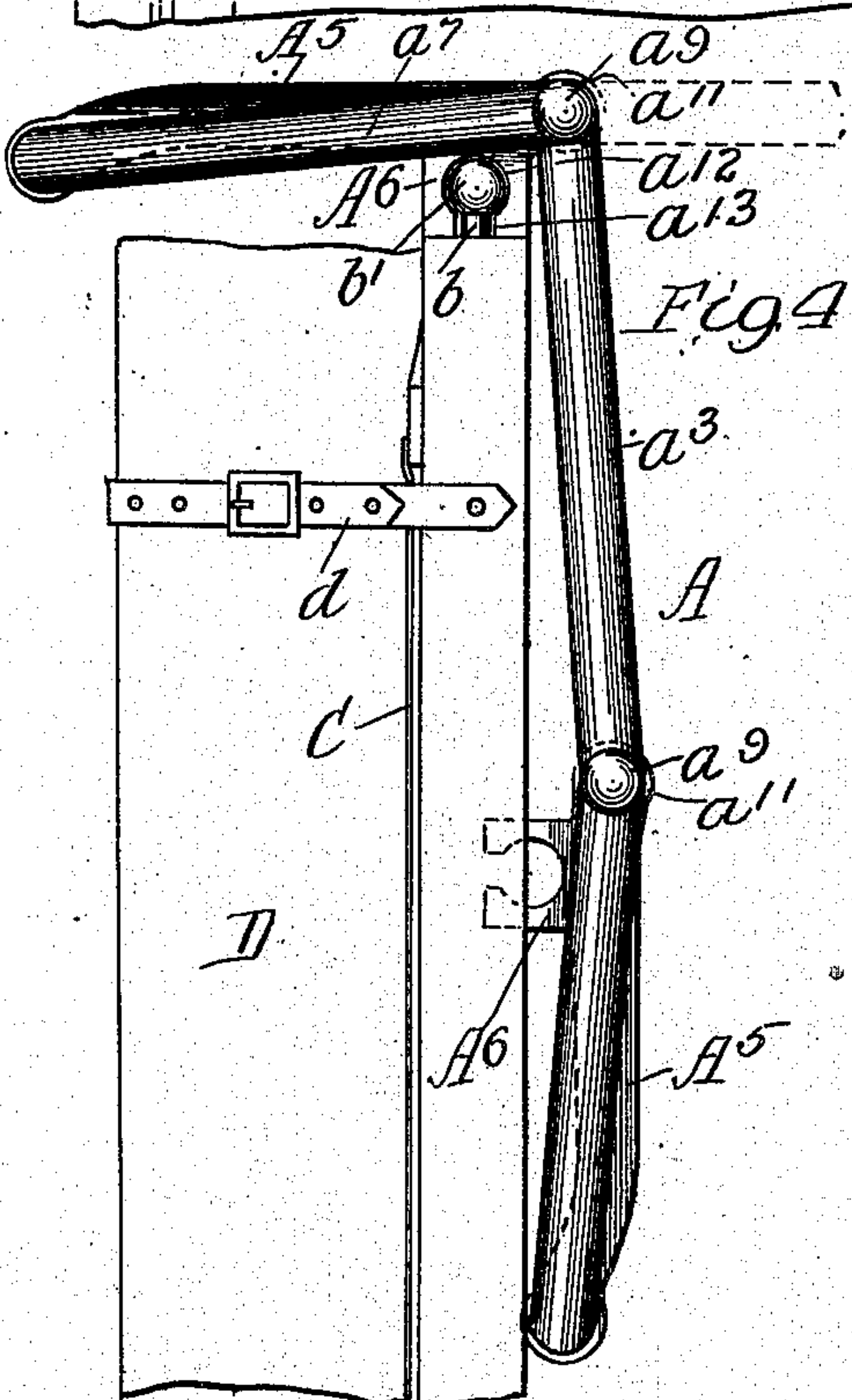
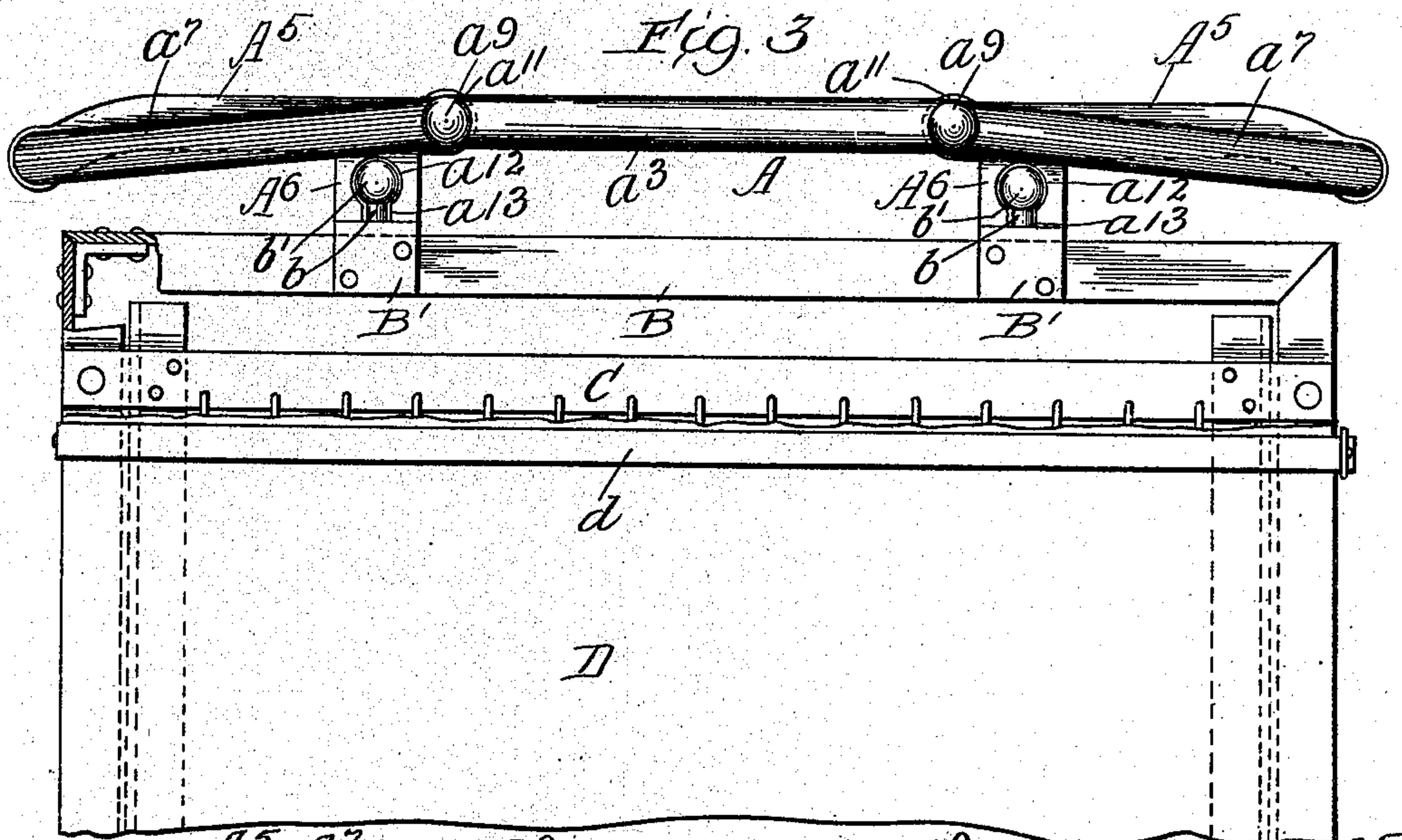
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3 SHEETS—SHEET 2.



Witnesses
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Ray White

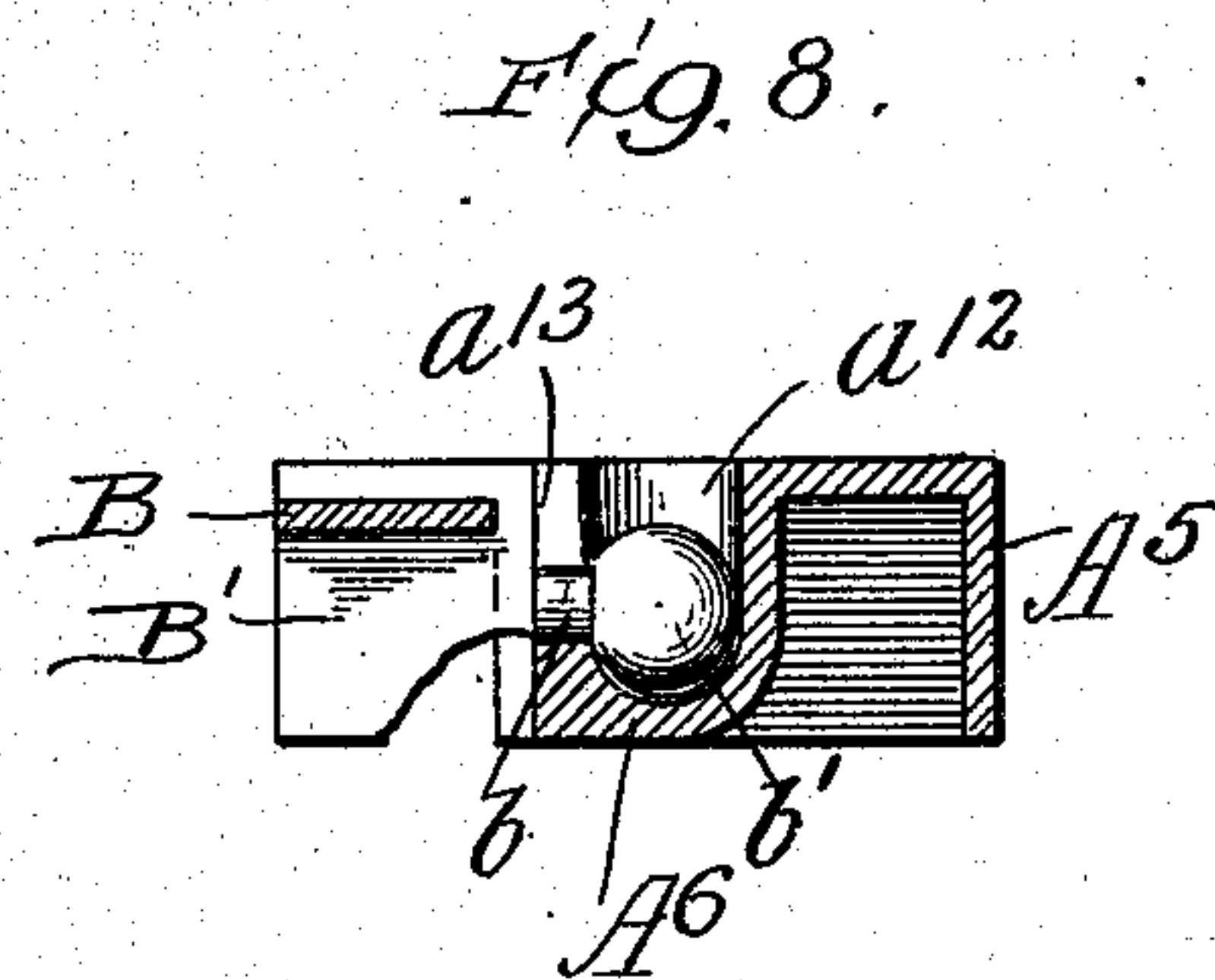
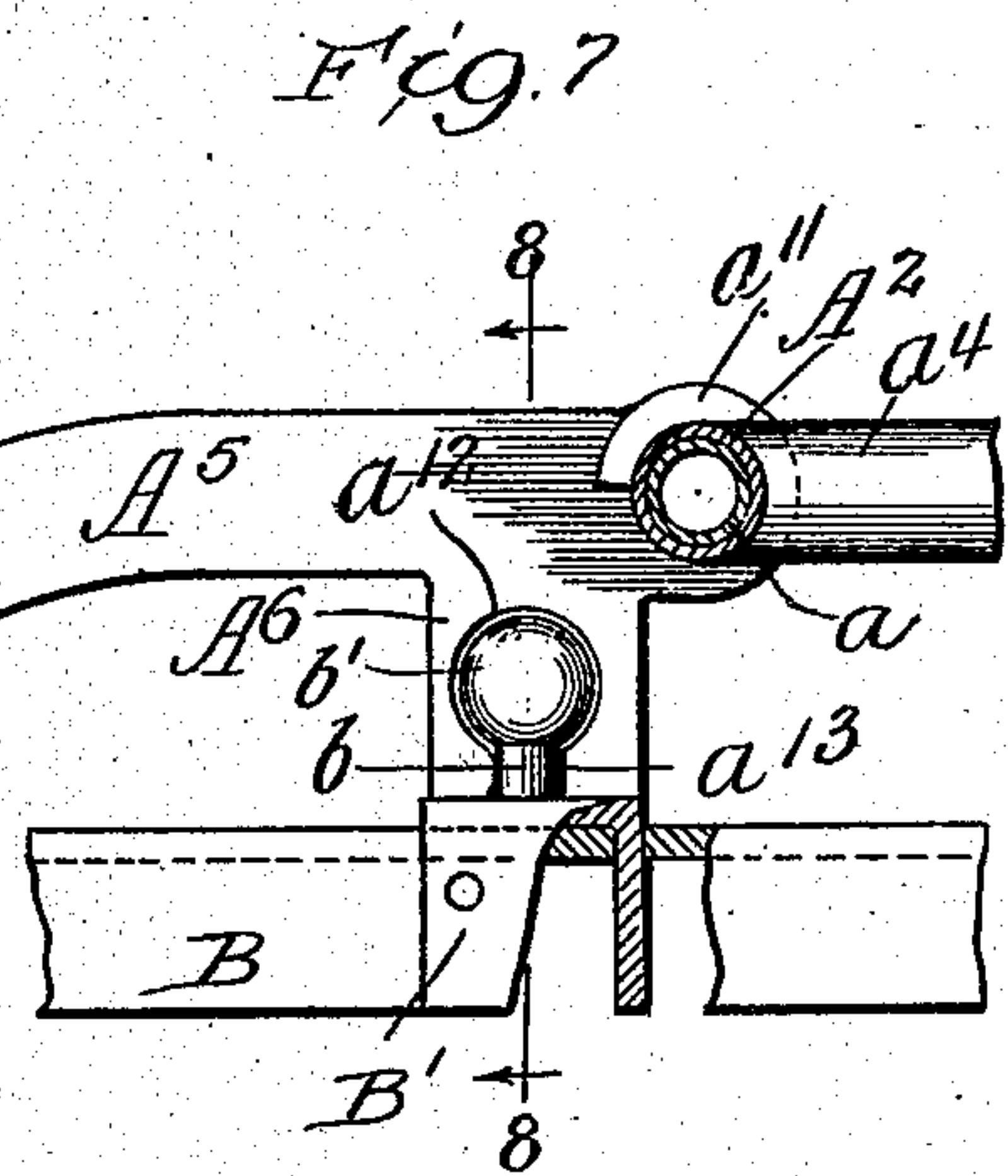
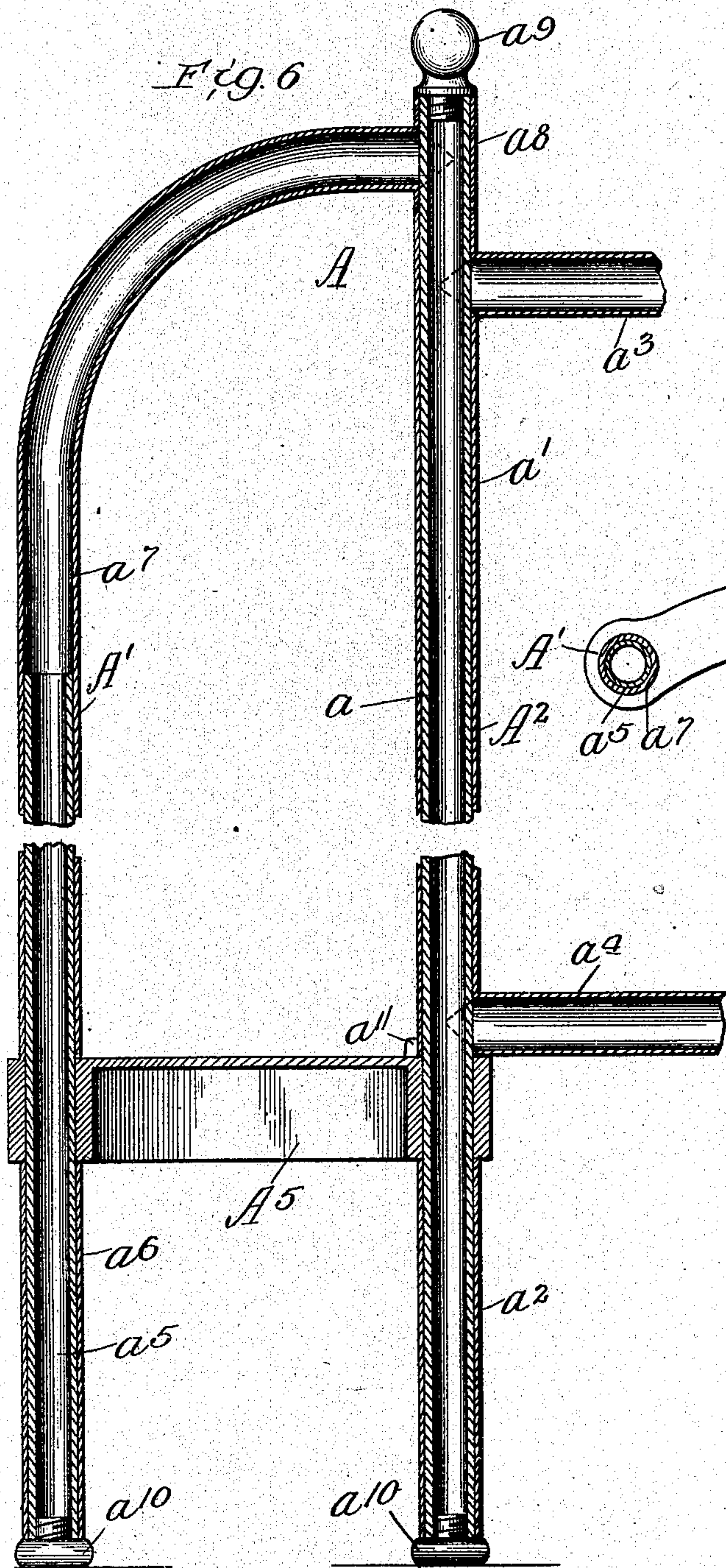
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O. E. ENELL.
FOLDING BED.
APPLICATION FILED NOV. 15, 1908.

Patented Oct. 6, 1908.

3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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FOLDING BED.

No. 900,157.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed November 15, 1906. Serial No. 343,510.

To all whom it may concern:

Be it known that I, OTTO E. ENELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Folding Beds, of which the following is a complete specification.

This invention relates to folding beds and more particularly to a reversely folding bed in which the head and foot boards are adapted to be folded from either side of the bed against the upturned bed bottom.

Heretofore it has not been usual to so construct beds that the bed bottom may be turned or folded to a vertical position at either side of the bedstead and thus enable the bed to be set up with either side adjacent the wall. Furthermore it has not been usual to provide sectional head and foot boards, the sections of which are hinged together to adapt them to fold inwardly against the upturned bottom from either side of the bed, dependent upon which end of said boards the bottom rests.

The object of this invention is to provide a bed in which the bed bottom is pivoted or hinged adjacent each lateral margin to the head and foot boards, to enable it to be turned upwardly on edge, so that the floor beneath the same can be thoroughly cleaned without removing the bed from its position.

It is also an object to provide a bed in which the head and foot boards are provided with hinged joints to permit them to be folded inwardly at either side of the bed against the upturned bed bottom and, when so folded, to support said bottom in an upright position and provide a very neat and compact structure.

It is a further object of the invention to provide a very strong and durable, reversely folding bed which, when unfolded, provides a very rigid construction, not likely to get out of repair and affording a very sanitary structure.

The invention consists of the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is an end elevation of a bed embodying my invention. Fig. 2 is a fragmentary side elevation of the same with springs and bedding thereon. Fig. 3 is a fragmentary top plan view of the bed. Fig. 4 is a fragmentary top plan view of the bed folded in one position. Fig. 5 is a simi-

lar view showing the bed folded in its reverse position. Fig. 6 is an enlarged, fragmentary vertical section of one of the end boards. Fig. 7 is an enlarged, fragmentary, top plan view, partly in section, of one of the pivotal or hinged joints between the bed bottom and end boards. Fig. 8 is a section taken on line 8—8 of Fig. 7.

As shown in said drawings: A indicates as a whole one of the end boards of the bed, each of which is constructed identically with the other, and B indicates the bed bottom which is pivoted or hinged to the end boards to enable it to swing upwardly on either side, similarly to the construction shown in my application for United States Letters Patent on beds, filed Oct. 8, 1906, and bearing Serial No. 337951. Said end boards are each constructed of a plurality of sections hinged together and for this purpose are provided with two outer and two intermediate posts indicated, in Fig. 1, by A¹—A²—A³ and A⁴, of which the posts A² and A³ form the pivot or hinge between the lateral sections and the central section, thereby enabling the central section and either of the lateral sections to swing inwardly at approximately a right angle with the other lateral section when the bed bottom is in its vertical position as shown more clearly in Figs. 4 and 5.

The posts A² and A³ may be constructed in any preferred manner and of any preferred material and the lateral sections may be hinged thereto in any preferred manner but as shown, each comprises an inner tube *a* extending the full length of the post and an outer tube divided into upper and lower portions indicated respectively by *a'* and *a''*, the latter of which is rigidly engaged on the tube *a* and extends upwardly approximately to the bed bottom B. The upper portion *a'* extends from the top of the bed bottom to near the top of the tube *a* and is adapted to turn thereon. The tubes *a'* are connected together near their ends by horizontal bars *a³* and *a⁴* which may be brazed or otherwise secured to said tubes.

Rigidly engaged on each of the posts A² and A³ in any preferred manner, but as shown, to the tubes *a* intermediate the tubes *a'* and *a''*, are the laterally directed arms or braces A⁵, the outer ends of which curve inwardly and are apertured to receive the lateral posts A¹ and A⁴ which are rigidly en-

gaged therein. Said lateral posts may also be constructed in any preferred manner, but as shown, each comprises an inner tube a^5 which extends upwardly beyond and is rigidly engaged in the arm A^5 and is provided with upper and lower outer tubes a^6 and a^7 as before described in reference to the posts A^2 and A^3 and the latter of which, a^7 , is rigidly engaged on the inner tube. The upper portion thereof is adapted to telescope with the tube a^5 and its upper end is curved laterally and is provided with a vertical sleeve or collar a^8 which fits over the top of the tube a and permits said tube to turn therein. Having threaded engagement in the top of the tubes a are the screw plugs a^9 which are flanged to engage over the sleeves a^8 and not only act to hold the parts together but also with the plugs a^{10} in the bottom of the posts afford a neat finish.

Each of the braces A^5 is provided at its end adjacent the post A^2 or A^3 with an upwardly directed lug a^{11} which extends laterally beyond the post, on the outer side thereof and is adapted to engage against the tube a^4 and prevent the lateral sections from turning outwardly beyond the plane of the central section while permitting them to turn inwardly as before described.

Extending inwardly from the inner face of each brace A^5 , and as shown near the posts A^2 and A^3 , are the brackets A^6 , each of which is provided with an upwardly opening socket a^{12} which opens through the inner end of the bracket by means of a slot or notch a^{13} affording a bearing seat in which the bed bottom is supported.

The bed bottom B comprises a rectangular frame which may be of any preferred material, but as shown, is constructed of angle bars and is provided at its ends with brackets B' , which are set inwardly from the side members of the frame and are in alinement with the brackets A^6 . Extending outwardly from each bracket B' is a journal or bearing b which is adapted to seat on the bottom of the slot or notch a^{13} and is provided on its end with a ball or enlargement b' which fits in the socket a^{12} and when seated binds against the walls thereof adjacent the slot, thereby forcing the adjacent faces of the brackets A^6 and B' into binding contact and preventing any endwise movement between the bed bottom and end boards. Upon said bed bottom B are engaged the springs C of any desired construction and supported thereon is the bedding D which when the bed bottom is turned to its vertical position is held in place by the straps d engaged on said bottom.

The operation is as follows: When it is desired to fold the bed the bedding is secured to the bed bottom by means of the straps d and then the bed bottom is turned upwardly to a vertical position upon the bearings b at

one side of the bed. Owing to the fact that the outer ends of the braces A^5 are curved towards the bed bottom the outer posts of the end boards normally set in towards the bed bottom slightly beyond the intermediate posts and act to prevent the upturned bottom from turning too far. The end boards are then folded inwardly upon the intermediate posts adjacent the upturned bottom while one end section remains stationary at each end, of the bed, so that the bed, when folded, rests upon two posts at each end.

When it is desired to unfold the bed, the end boards are turned back to place and are caused by means of the lugs a^{11} engaging against the tube or rod a^4 , to stop in exact position to receive the bearings b' in the sockets. The bed bottom is then turned downwardly to its normal position.

While the bed bottom is shown as having one flange of the angle bars extending inwardly from the top of the other it is obvious that if the bottom is turned completely over the inwardly directed flange will be at the bottom of the other and may be utilized to support slats if desired.

Obviously the bed may be folded in either direction and for that reason it is immaterial which side thereof is adjacent the wall.

Obviously also the sections of the end boards may be hinged in any preferred manner and may be given any desired finish and may be provided with artistic scrolls if desired.

I claim as my invention:

1. In a reversely folding bed the combination with a bed bottom, of end boards therefor, adapted to support the bottom in a vertical plane at either end thereof and each comprising three pivotally connected sections, either end section of which is immovable when the bed bottom is supported thereon, and the other end section and the central section of which turn inwardly against the upturned bottom.

2. In a device of the class described the combination with sectional head and foot boards, adapted to fold inwardly intermediate their centers and each lateral edge, of a bed bottom supported thereon and adapted to turn upwardly on edge on the lateral sections at either side of the bed and means adapted to prevent the lateral sections supporting the bottom from turning inwardly.

3. The combination with a reversely folding bed bottom of head and foot boards therefor, each having two hinged joints intermediate its lateral posts and adapting a portion only thereof to fold from either side of the bed against the upturned bottom and means preventing said swinging portions from turning outwardly beyond the plane of the boards while the bottom is in upturned position.

4. In a device of the class described the

combination with a head and a foot board, each comprising a central and two lateral sections hinged together, of a bed bottom pivotally connected with each lateral section and adapted to be turned to a vertical plane at either side of the bed, said central section and either lateral section being adapted to fold inwardly against the upturned bottom, dependent upon which side of the bed the bottom rests while the other lateral section is held stationary.

5. In a device of the class described the combination with a bed bottom of head and foot boards therefor, each comprising a central section and two lateral sections and means affording a pivotal connection between each lateral section and the bed bottom and adapting the bed bottom to be turned upwardly at either side of the bed and either lateral section of said boards and the central section to be folded thereagainst while the other lateral section remains stationary.

6. In a device of the class described the combination with a bed bottom having longitudinally directed journals on each end thereof, of end boards for said bottom, each comprising a central section and two lateral sections hinged thereto, and a bearing seat for one of said journals on each lateral section and adapted to hold said sections rigid when the bottom is supported thereon in upturned position.

7. In a device of the class described the combination with a head and a foot board, each having two lateral sections hinged thereon, of a bed bottom, pivotal connections between said bottom and said lateral sections adapting said bottom to be turned upwardly at either side of the bed, corresponding lateral sections at either side of the bed being adapted to remain stationary when the other sections are folded inwardly against the upturned bottom.

8. In a bed the combination with a bed bottom of sectional end boards therefor, means for folding a part of the sections of each end board inwardly, means adapted to hold the remaining sections rigid with respect to the bottom and means at the pivotal points of said sections adapted to prevent the sections from turning outwardly beyond their normal plane.

9. In a device of the class described the combination with the end boards of a bed, each comprising a central section and lateral sections hinged thereto and adapted to fold inwardly from the plane thereof, means

adapted to prevent said lateral sections from turning outwardly from the plane of the central section, a bearing seat on the inner side of each lateral section, a bed bottom and means thereon adapted to rotatively engage in said seats and lock the bottom and boards together.

10. In a device of the class described the combination with the end boards of a bed, each comprising a central and two lateral sections, a bearing seat on each lateral section, an upwardly swinging bottom, horizontal bearings thereon adapted to engage in said seats and means adapting the central and one end section of each board to fold inwardly when the bottom is upturned.

11. In a bed of the class described the combination with the head and foot boards of a bed, each having two outer and two intermediate posts, a bearing seat between the outer and the intermediate posts, a bed bottom, bearing members thereon adapted to engage in said seats and adapting the bottom to be turned upwardly at either side of the bed, and means adapting said boards to fold inwardly upon the intermediate posts as pivots and against the upturned bottom.

12. In a device of the class described the combination with sectional end boards, of means adapting either end of said boards to swing inwardly on a vertical axis, a bed bottom pivoted thereon and adapted to turn upwardly between the lateral end sections at either sides of the bed and means for folding the remaining end sections against the upturned bottom.

13. In a device of the class described the combination with folding, sectional end boards, of bearing seats thereon intermediate their ends, a reversible bed bottom and journals on said bottom rotatively engaged in seats.

14. In a bed of the class described the combination with the end boards thereof, of upwardly opening bearing seats intermediate the ends of said boards, a bed bottom extending laterally beyond said seats, longitudinally directed journals thereon rotatively engaged in said seats and means on said journals adapted to lock the boards to the bottom.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

OTTO E. ENELL.

Witnesses:

W. W. WITHEBURY,
MATIE WITHEBURY.