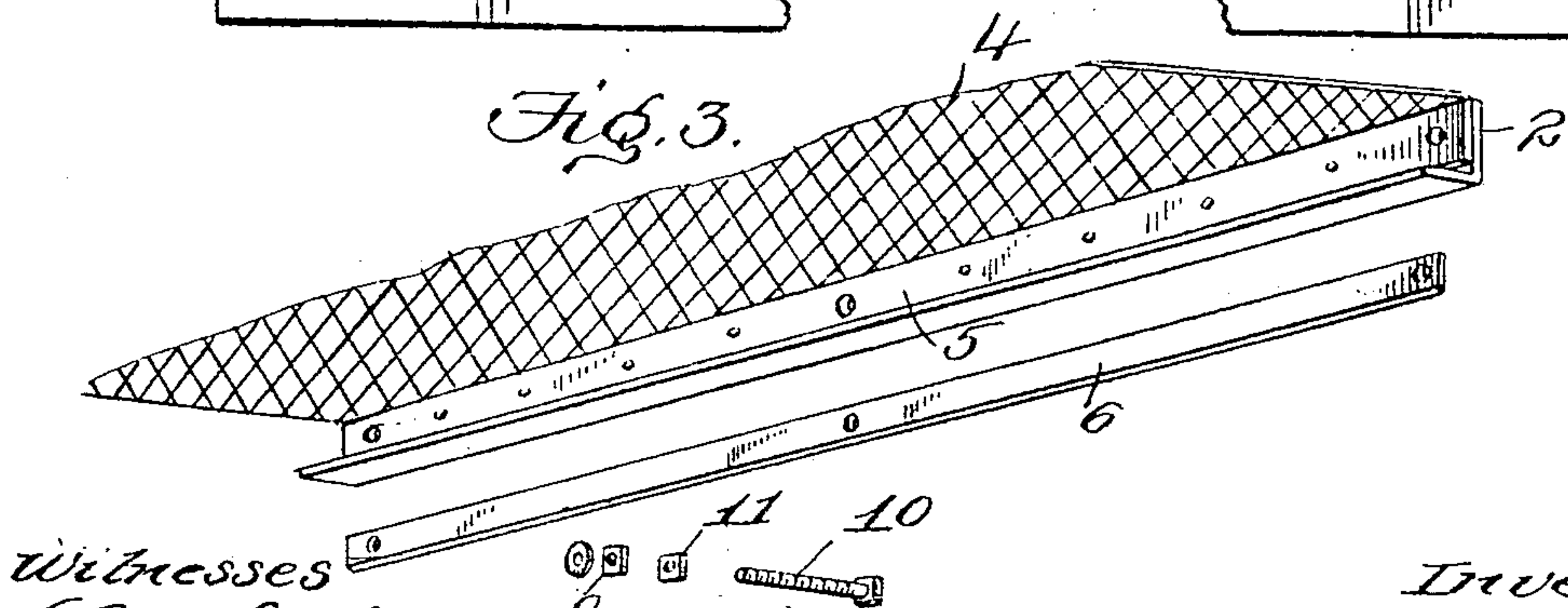
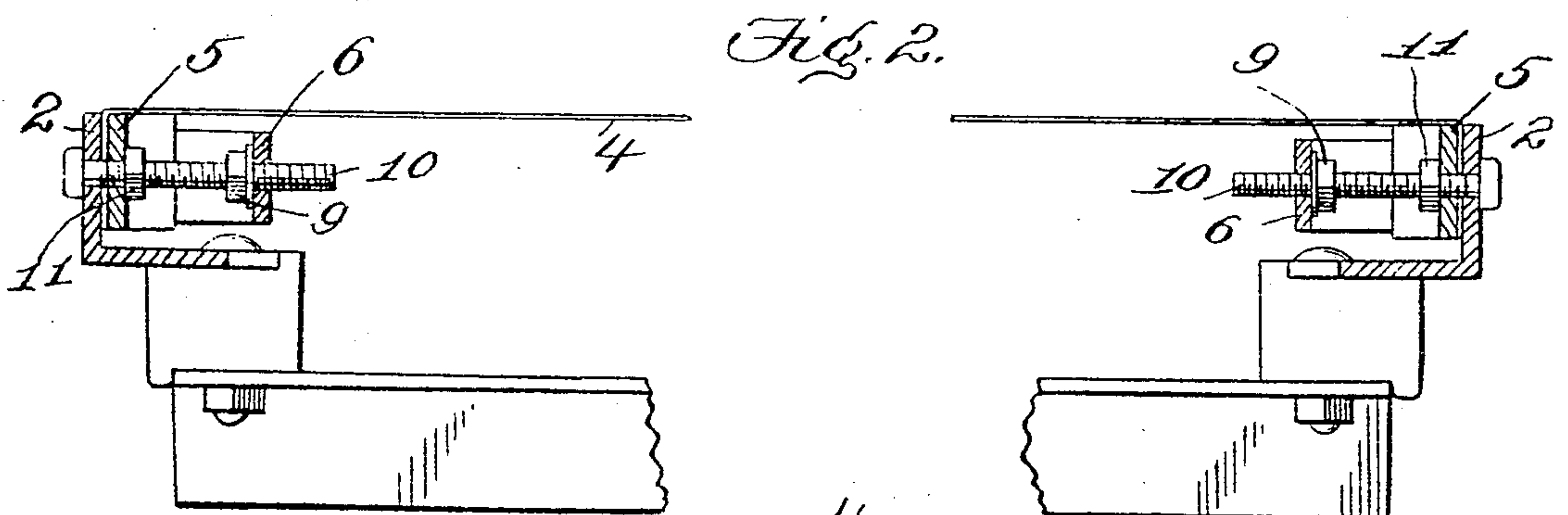
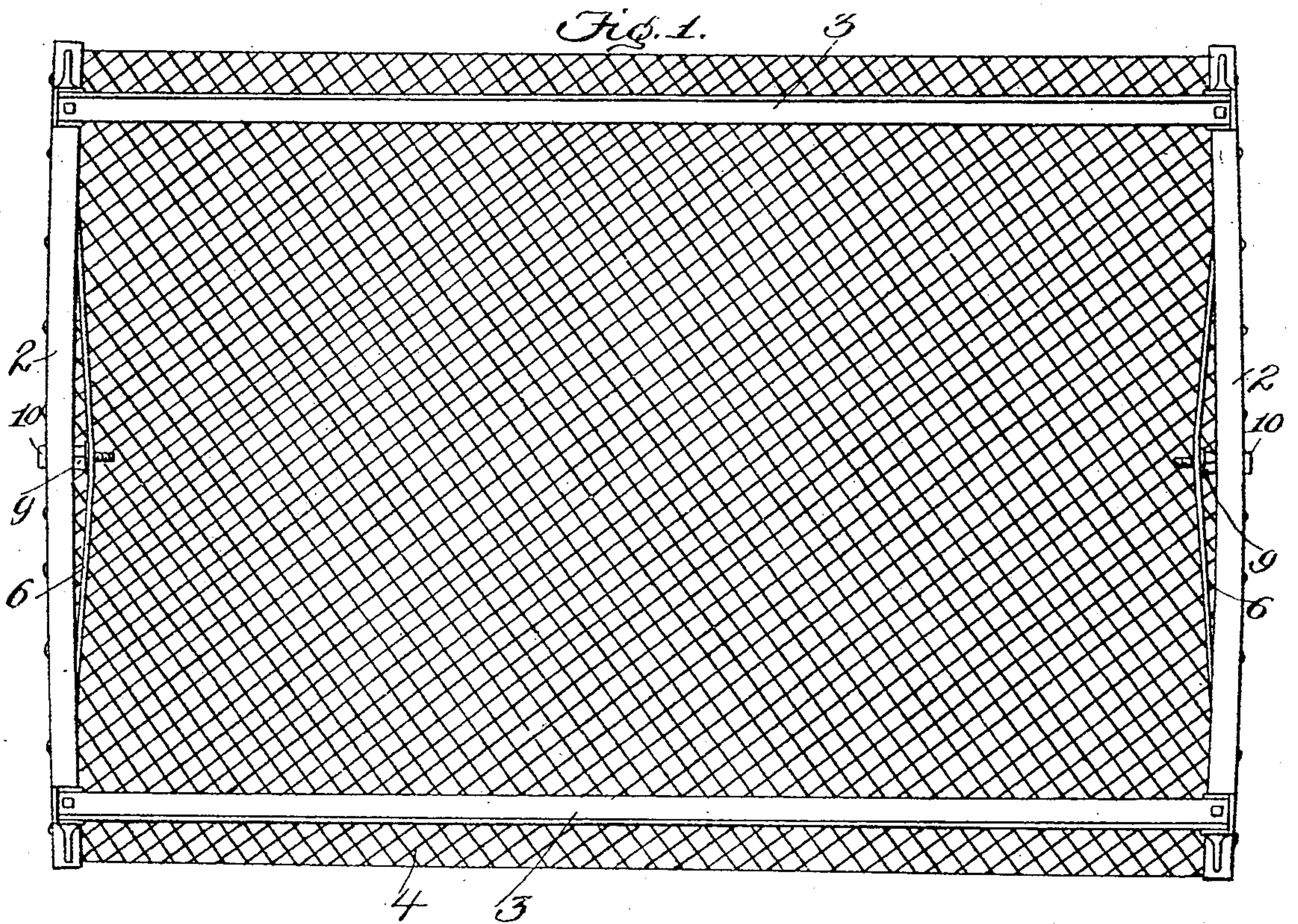


No. 861,201.

PATENTED JULY 23, 1907.

H. A. BACON.  
MATTRESS FRAME.  
APPLICATION FILED MAR. 9, 1907.

2 SHEETS—SHEET 1.



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MATTRESS FRAME.

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2 SHEETS—SHEET 2.

Fig. 4.

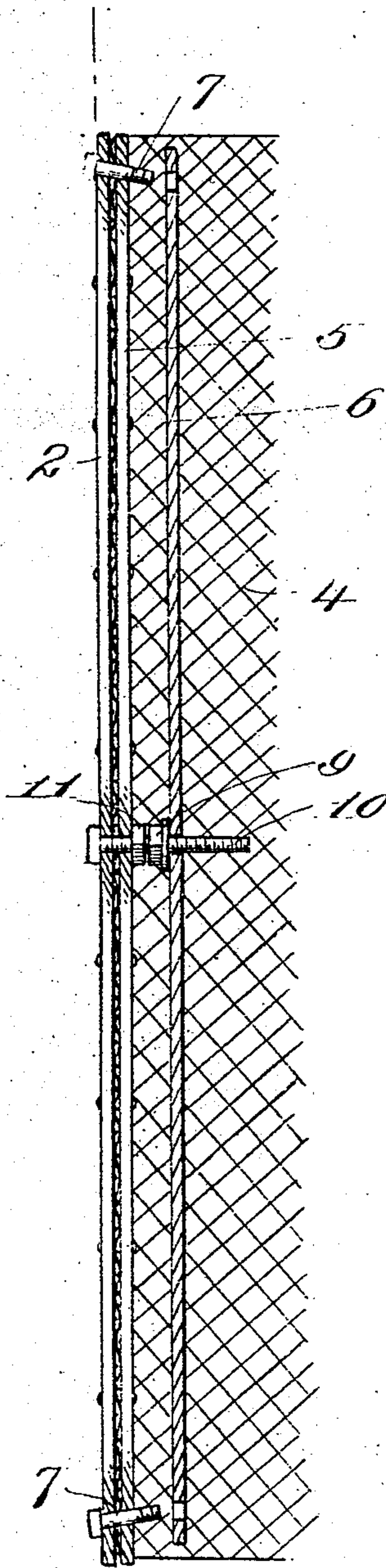


Fig. 5.

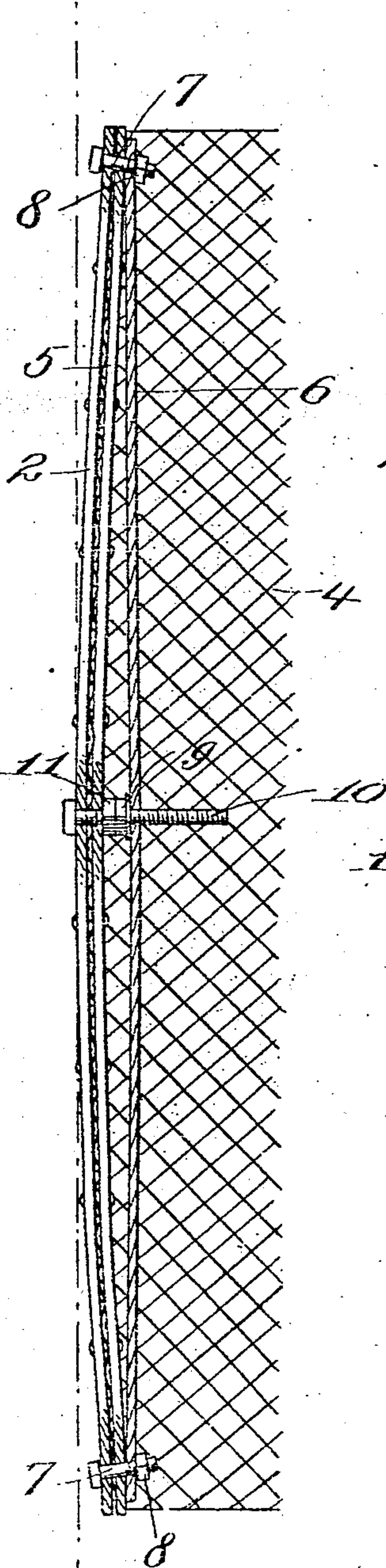
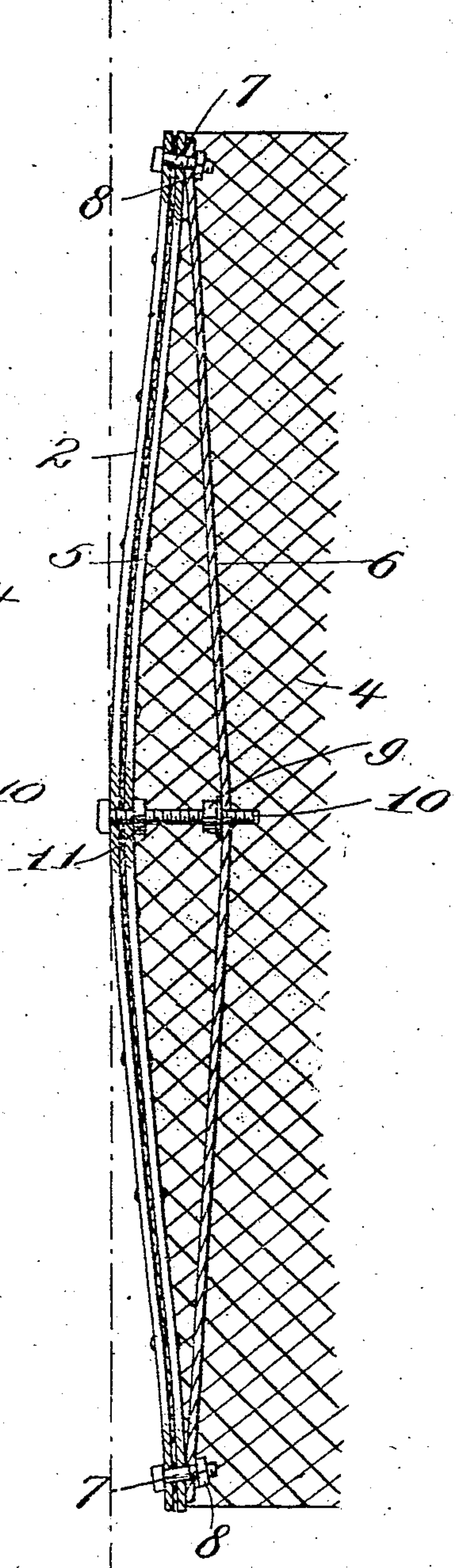


Fig. 6.



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# UNITED STATES PATENT OFFICE.

HARRY A. BACON, OF BRANCHVILLE, MARYLAND, ASSIGNOR OF ONE-THIRD TO LYMAN E. BURDINE, OF WASHINGTON, DISTRICT OF COLUMBIA.

## MATTRESS-FRAME.

No. 861,201.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed March 9, 1907. Serial No. 361,555.

*To all whom it may concern:*

Be it known that I, HARRY A. BACON, a citizen of the United States, residing at Branchville, in the county of Prince-George and State of Maryland, have invented 5 new and useful Improvements in Mattress-Frames, of which the following is a specification.

This invention relates to mattress frames, the object of the invention being to provide simple, inexpensive, and effective means for tightening the fabric constitut- 10 ing part of the same.

In the drawings accompanying and forming part of this specification I illustrate in detail one form of embodiment of the invention which, to enable those skilled in the art to practice the same, will be fully set 15 forth in the following description, while the novelty of the invention will be included in the claims succeeding said description.

Referring to said drawings: Figure 1 is a top plan view of a mattress frame involving my invention. Fig. 20 2 is a longitudinal central sectional view of the same on an enlarged scale, with the intermediate portion of the frame removed. Fig. 3 is a detail view in perspective of an end rail of the frame, truss rod, bolt, and certain adjunctive devices, separated from each other. Figs. 25 4, 5, and 6 are top plan views of one of the end rails showing the manner of attaching the fabric thereto, the way of connecting the truss rod to said end rail, and the operation followed in taking up the slack in the fabric.

30 Like reference characters refer to like parts throughout the several figures.

The mattress frame includes in its construction two end rails as 2 of duplicate construction and two similar side rails as 3, and these several rails may be made of 35 any suitable material, such as angle iron, and may be united together in any desirable way to present an open frame which, although it may be of any desirable shape, is generally and preferably rectangular. As a part of the frame I provide a suitable fabric as 4 upon which 40 the mattress or equivalent device is supported. It is one of the principal objects of my invention to provide for the ready tightening of this fabric 4 by the owner of the bed at any time in a simple, feasible, and expeditious manner. Should, therefore, the user of the bed 45 find that the fabric 4 sags, the slack can be instantly removed by him by the use of an ordinary wrench, thus avoiding the necessity of calling in skilled labor for this purpose or the sending of the bed equipped with the frame to a factory.

50 It will be understood that the fabric to which I have referred may be of woven wire, link-form, or of any other desirable character.

In making the metal mattress frame I prefer to first connect the ends of the fabric 4 with the end rails 2

and, while this connection may be made in any desirable way, I find that battens or clamping strips as 5 can be advantageously utilized. The ends of the fabric 4 are folded down, as clearly shown in Fig. 2, and laid against the inner sides of the end rails 2, after which the battens or clamping strips 5 are placed 60 against the folded down ends of the fabric and are riveted or otherwise suitably fastened to the said end rails 2, the battens or clamping strips 5 constituting in reality part of the end rails. After thus connecting the fabric 4 with the end rails the latter have connected therewith 65 the means for taking up slack, following which the fabric is stretched its maximum extent, usually mechanically, after which the ends of the side rails 3 are connected as by bolts, rivets, or screws with the ends of the end rails 2. 70

The means for removing slack in the fabric preferably includes two truss rods each designated by 6, although it is possible that but one of these might be employed. As those shown in the drawings are exactly alike, and the same statement applies to their mount- 75 ing and mode of operation, a detailed description of one of said rods, its mounting, and mode of operation will apply to the other, and in this connection particular reference may be had to Figs. 4, 5, and 6.

The truss rod 6 when applied is usually straight and 80 it is held to the adjacent end rail 2 by means of two bolts as 7 angularly disposed to each other and which in the present case converge inward and are equipped with nuts as 8 at their inner ends. An advantage follows the angular disposition of the two bolts 7, as will 85 hereafter appear.

It will be understood, I believe, from what has been stated that I first attach the fabric 4 to the two end rails 2 and afterward connect the truss rods 6, where two are employed, to said end rails. Following this 90 the fabric is stretched mechanically, after which the side rails are fastened to the end rails to make the finished article.

Referring again particularly to Figs. 4, 5, and 6 and following out my description of one of the truss rods 95 and its cooperating parts, I connect said truss rod to the adjacent rail by means of the two bolts 7, which are passed inwardly through perforations in said rail and perforations near the opposite ends of said truss rod. When this is done, the nuts 8 of the bolts are 10 applied and said nuts are turned solidly home, and, owing to the angular relation of the bolts, the said end rail is outwardly bowed, as shown in Fig. 5. This will bring the intermediate or substantially central portion of the truss rod 6 against the adjusting nut 9 pro- 105 vided the bolt carrying said nut has been previously positioned. The bolt in question may be put in place either before or after the truss rod 6 is connect-



to the cooperating end rail. I prefer to interpose between the adjusting nut 9 and the truss rod 6 a washer subserving its customary function. The bolt 10 is passed inwardly through a substantially central perforation in said end rail 2, the head of the bolt abutting against the outer side of said rail, while a holding nut, as 11 engages against the inner side of the rail or against the batten 5 constituting a part of said rail. Where I utilize a batten to connect the fabric 4 to the rail it will be apparent that said batten is perforated for the passage of the bolts 7 and 10. Usually when the mattress frame leaves the factory the adjusting nut 9 is against or practically in contact with the nut 11, the truss rod 6 at this time being approximately straight, such relation being shown clearly in Fig. 5. The truss rod 6 has no direct or positive connection with the bolt 10, the latter extending freely through a perforation in said truss rod so that, should the threads of the bolt 10 be stripped or injured in some other way to effect the proper adjusting operation of the nut 9, it does not become necessary to separate the bolt from the truss rod or the truss rod from the end rail, to supply a perfect bolt. The only thing necessary to put in a new bolt is to remove the two nuts 9 and 11, then to withdraw said bolt, after which a perfect bolt can be put in the place of the defective one and nuts applied thereto between the end rail and truss rod. Should there be some direct or positive connection between the bolt 10 and the truss rod 6, it would be necessary to ship the mattress frame as a whole to a factory in case it becomes necessary to remove such a bolt having such a connection. I avoid all this difficulty and provide a means whereby a house-holder can without skilled aid instantly apply a new bolt to take the place of a damaged one, and the operation in question is one that can be performed with ease and facility. When, therefore, the frame is first assembled as an article of manufacture, the nut 9 is substantially in contact with the nut 11, and the rod 6 is contiguous to the nut 9. This is the condition in which a user finds the frame when he purchases it. Should the fabric 4 be loosened or sag, and this is a common occurrence, such looseness or slack can be instantly eliminated by the use of an ordinary wrench applied to the adjusting nut 9, said nut being turned as it would be to unscrew it from its carrying bolt 10. When this procedure is followed the bolt 10 is fed outward to outwardly bow the adjacent end rail. Owing to the fact that the truss rod 6 is practically straight I can obtain a wide range of adjustment with a bolt of comparative short length.

The check-nut 11 serves, as will be obvious, to prevent longitudinal movement of the bolt 10 with respect to the end rail 2 and truss rod 6 during the adjusting operation of the nut 9.

I provide a construction that is quite simple; which adds very little to the expense of the bed. The adjusting means can be easily and readily operated to

take up any slack in the fabric 4, and this fabric can be stretched to an unusual extent by the application of a small amount of power. The truss rods 6 reinforce the end rails 2 so that I do not need to use such heavy end rails, as I would have to do were said truss rods not employed.

What I claim is:

1. A device of the class described having side and end rails, a truss rod, angularly disposed bolts for connecting the ends of said truss rod with one of said end rails, and means between the truss rod and the end rail with which said truss rod directly cooperates for outwardly bowing said latter end rail.

2. In a device of the class described, a frame having end and side rails, a truss rod connected with one of said end rails, a bolt carried by the end rail with which said truss rod is connected, said truss rod having a perforation through which said bolt passes, and a nut on the bolt to act against said truss rod, the nut when turned serving to feed the bolt outward to bow the end rail carrying said bolt in an outward direction.

3. In a device of the class described, end rails and side rails, a truss rod, angularly disposed bolts having nuts at their inner ends, for connecting the opposite ends of said truss rod with one of said end rails, a bolt extending through the end rail to which said truss rod is connected and having means to prevent its longitudinal movement with respect thereto, said truss rod having a perforation through which said latter bolt passes, and a nut to bear against the truss rod for feeding said latter bolt outward.

4. In a device of the class described, an end rail, a truss rod connected with said end rail, a bolt extending through said rail, having a head at its outer side to engage the outer side of the end rail, and a nut to engage against the inner side of the end rail to prevent longitudinal movement of the bolt with respect to said end rail, said truss rod having a perforation between its ends through which said bolt passes, and a nut between the end rail and truss rod to act against the latter for feeding the bolt in an outward direction.

5. In a device of the class described, an end rail, a truss rod, angularly disposed bolts extending through the end of the end rail and truss rod respectively, said bolts having nuts to bear against said truss rod, and means cooperative with the end rail and truss rod respectively for outwardly bowing the former.

6. In a device of the class described, an end rail, a truss rod, angularly disposed bolts extending through the ends of the end rail and truss rod respectively and having nuts at their inner ends to act against said truss rod, a bolt extending through the rail, the truss rod having a perforation through which the bolt passes, and the latter having a head bearing against the outer side of the rail, a nut on the latter bolt acting against the inner side of the rail to prevent longitudinal movement of the latter bolt with respect to the rail, and a second nut to act against the truss rod for feeding the latter bolt in an outward direction.

7. In a device of the class described, an end rail, a truss rod connected with the end rail, a bolt normally immovably connected with said end rail, the truss rod having a perforation through which said bolt passes, and an adjusting nut carried by the bolt to act against the truss rod to feed the bolt outward.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HARRY A. BACON.

Witnesses:

FRANK S. BRUGER,

WM. H. PRALLE.