

No. 868,132.

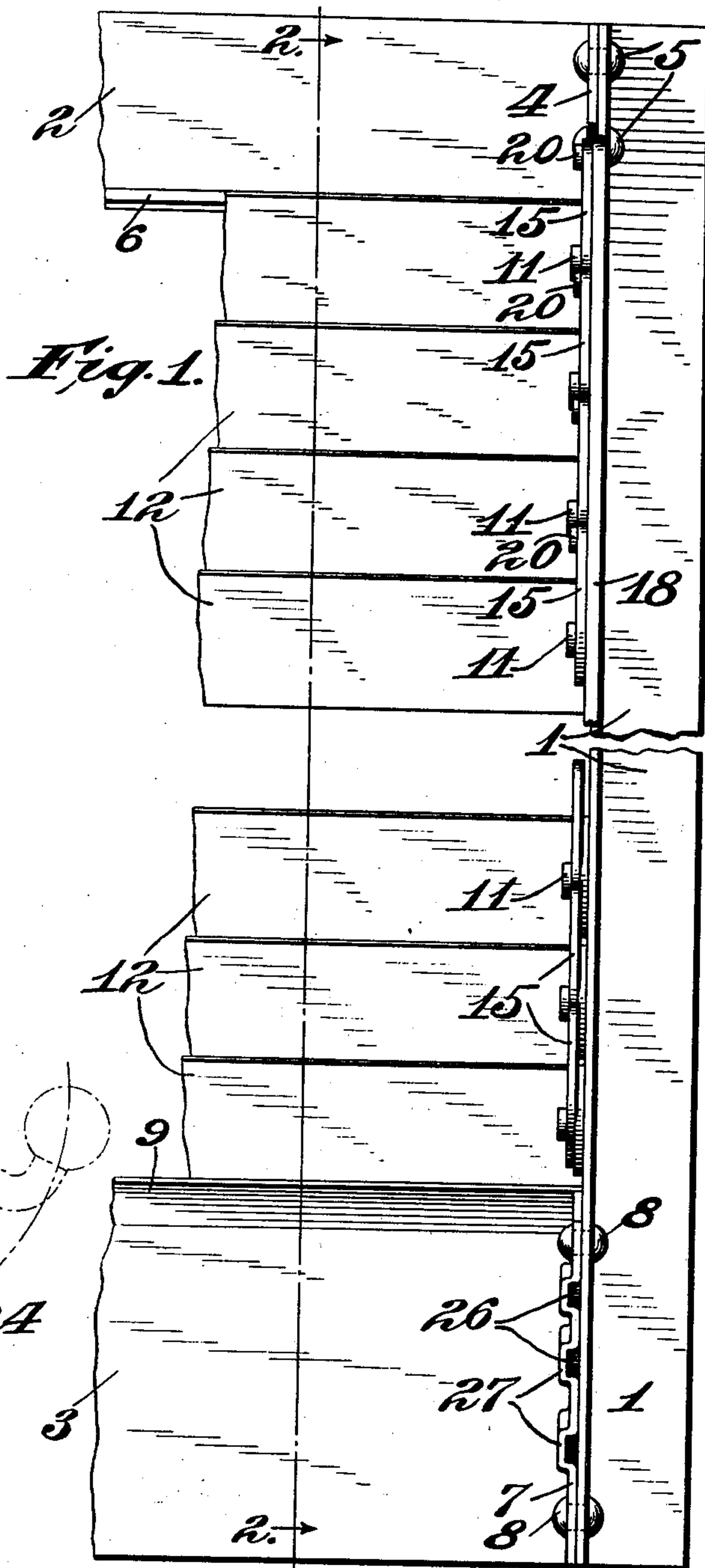
G. J. SCHEUERMANN.

PATENTED OCT. 15, 1907.

SHUTTER.

APPLIOATION FILED FEB. 9, 1907.

2 SHEETS—SHEET 1.



*Witnesses:*

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*Inventor:*

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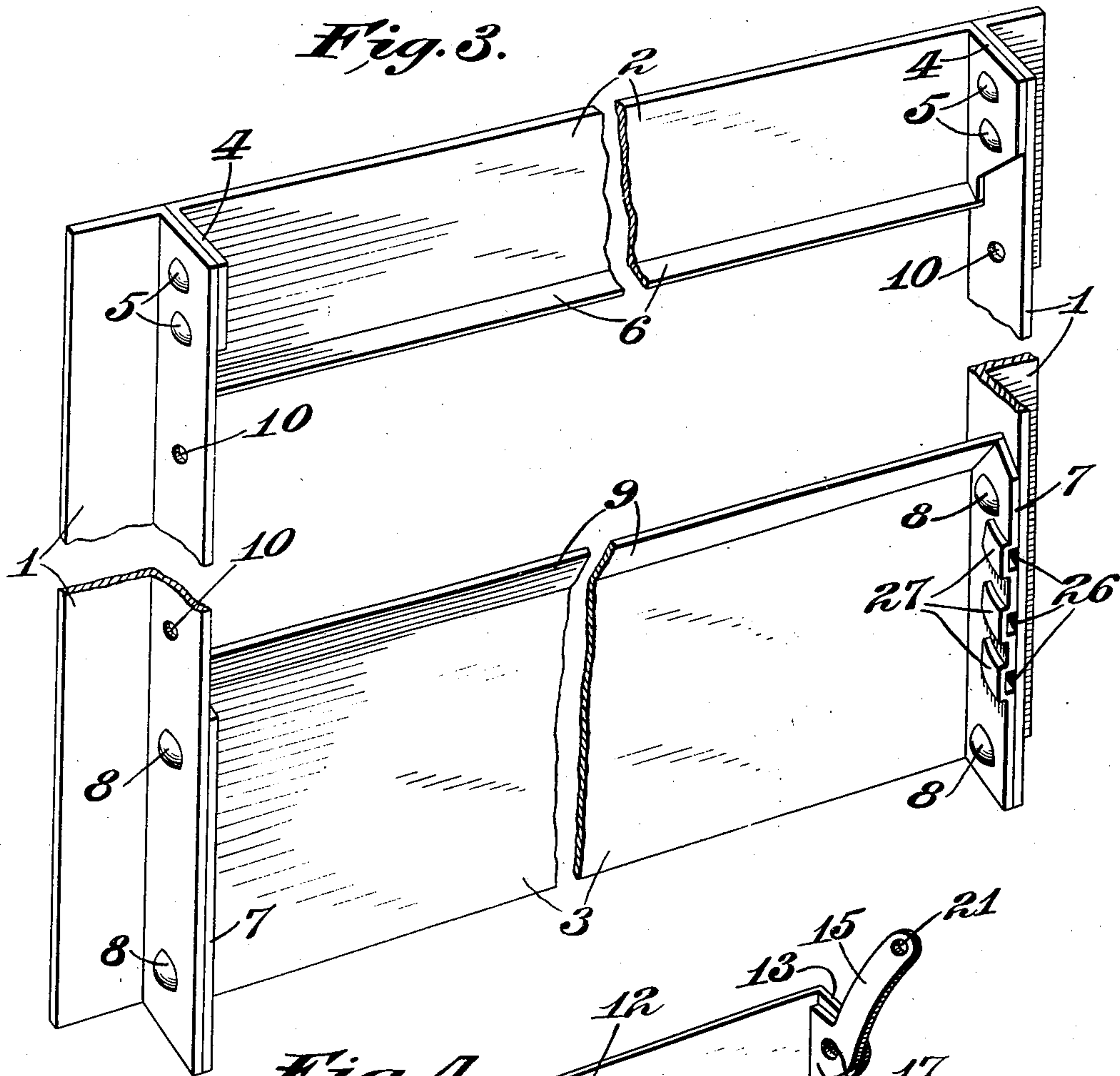
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SHUTTER.

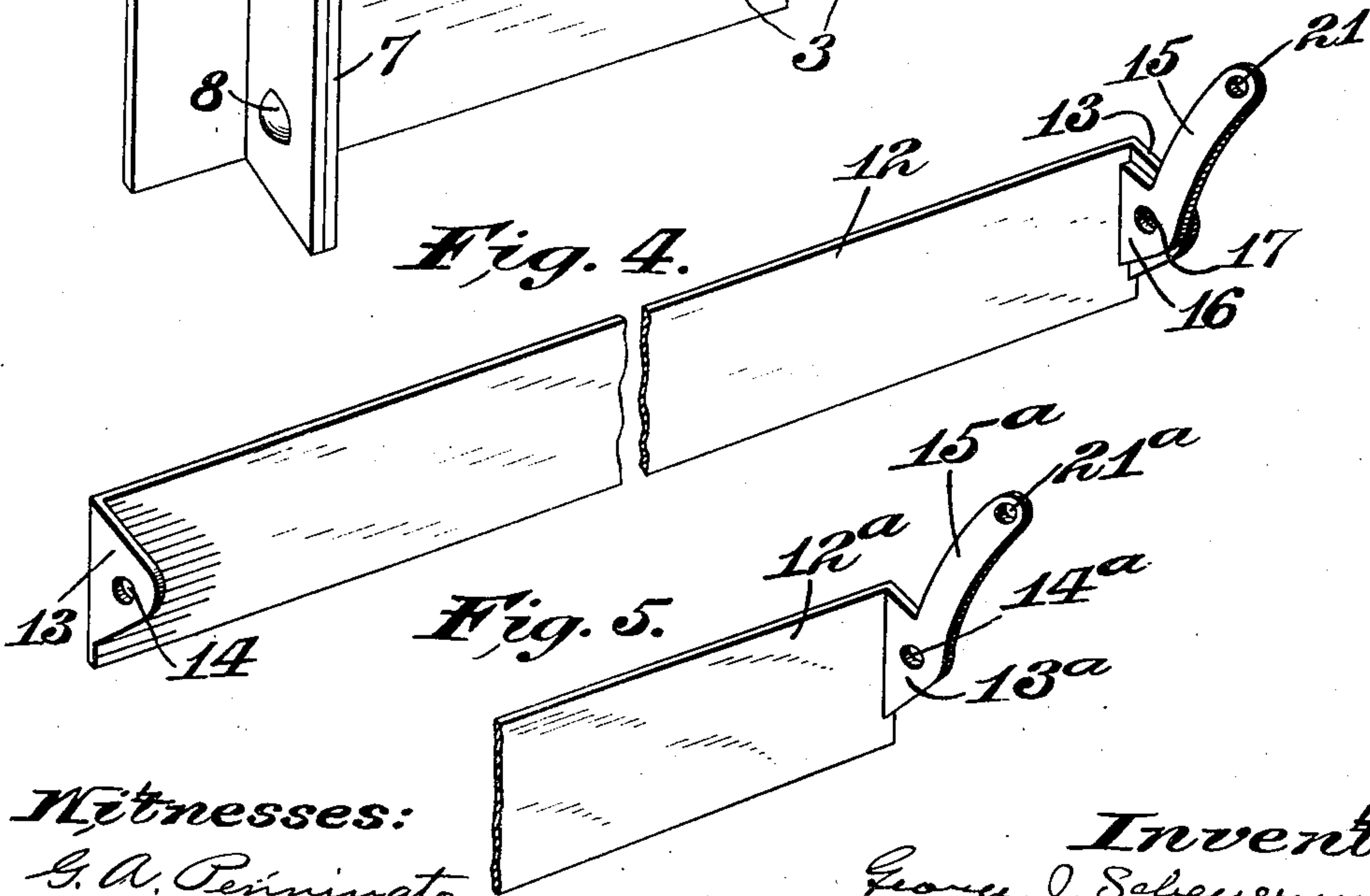
APPLICATION FILED FEB. 9, 1907.

2 SHEETS—SHEET 2.

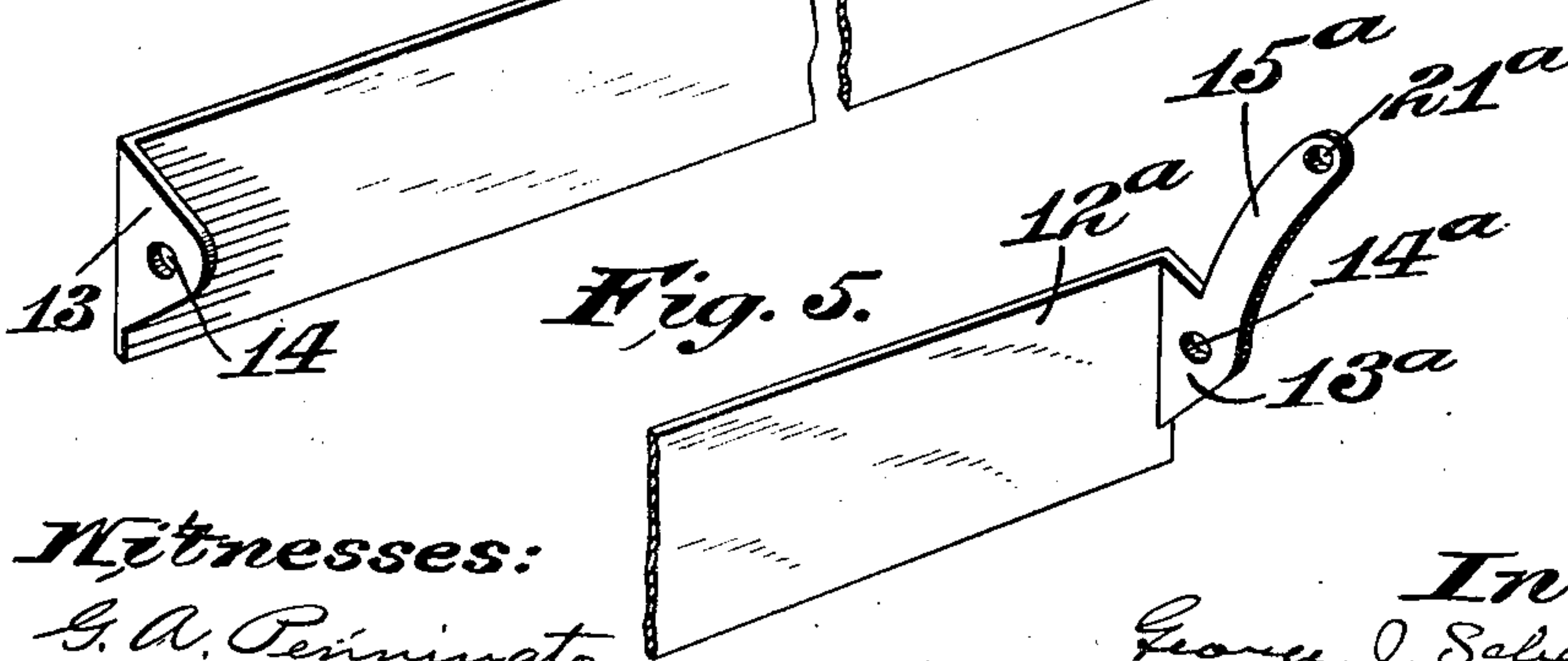
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

GEORGE J. SCHEUERMANN, OF ST. LOUIS COUNTY, MISSOURI, ASSIGNOR OF ONE-HALF TO ANTHONY BARHORST, OF ST. LOUIS, MISSOURI.

## SHUTTER.

No. 868,132.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed February 9, 1907. Serial No. 356,568.

*To all whom it may concern:*

Be it known that I, GEORGE J. SCHEUERMANN, a citizen of the United States, and a resident of the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Shutters, of which the following is a specification.

My invention relates to shutters and particularly to fire-proof shutters.

It has for its principal objects to simplify the construction and reduce the cost of metallic shutters; to improve the construction and arrangement of pivotal slats for shutters in general; to provide novel manipulating means for the pivoted slats; to provide a simple and efficient locking device for said manipulating means; and to attain certain other advantages herein-  
10 after more fully appearing.

The invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

20 In the accompanying drawings, which form part of this specification, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a fragmentary view, in elevation, showing the inner side of a metallic shutter embodying my invention, certain parts  
25 being broken away and others removed; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a fragmentary view in perspective, showing a preferred construction of frame; Fig. 4 is a detail view of one form of pivotal  
30 slat; and, Fig. 5 is a detail view of a modified form of

The shutter illustrated in the drawings is constructed entirely of metal. Its frame comprises angle side members 1 which are riveted or otherwise secured at the top and bottom to connecting members 2 and 3, respectively. The upper connecting member 2 has bent angular portions 4 at each end, said angular portions 4 being perforated to receive the rivets 5 which secure the upper ends of the side members 1 thereto. The lower edge of the connecting member 2 is bent to form  
40 an inclined flange portion 6. This flange portion 6 stiffens the connecting members, and also serves as an abutment for the uppermost slat when the slats are closed. The lower connecting member 3 is likewise formed with bent angular end portions 7 which are per-  
45 forated to receive the rivets 8 which secure the lower ends of the side members thereto. It also has its upper edge bent to form an inclined flange portion 9 which stiffens said connecting member and serves as a water shed as well as an abutment for the lowermost slat when  
50 the slats are closed.

The angle members 1 are provided with a plurality of equidistant holes 10 arranged to receive the pivot studs 11 for the pivotal slats 12. The slats 12 are made with bent angular portions or ears 13 at each end.

These ears have perforations 14 therein to receive the pivot studs 11. Lever extensions or key-pieces 15 are attached to each of the slats at one end thereof. The key-pieces 15 are preferably made with a flaring winged portion 16. The portion 16 has a perforation 17 therein which is located to register with the perforation 14 in  
55 the ear 13 against which the key-piece is placed. The pivot stud 11 is passed through the perforations 17 and 14, and then through the perforations 10 in the angle side member 1 and riveted or otherwise secured in place. The winged portion 16 of the key-piece 15 is  
60 of a sufficient length from the center of its perforation 17 to reach and fit snugly against the inner face of the slat 12. Thus, the key-piece and slat are held in fixed relation.

The free end portions of the lever extensions 15 are  
70 pivotally connected to a manipulating bar 18. The bar 18 is of a sufficient length to include all the lever extensions 15, and it is provided with a series of equidistant perforations 19 to receive pivot studs 20 which are mounted in perforations 21 near the ends of the  
75 lever extensions.

A locking device is pivotally attached to the lower end of the manipulating bar 18. The locking device comprises a straight portion 22 and a bent angularly-extending portion 23 on the end of which a weighted  
80 knob 24 is mounted. The straight portion 22 has a projection 25 extending in a direction opposite to the portion 23; that is, towards the shutter frame when the portion 22 is moved into locking position. This projection 25 is arranged to enter a pocket 26, or engage  
85 any other suitable catch provided therefor on the shutter frame, to hold the bar 18 in any of its positions when the slats 12 have been adjusted to the desired position. In the construction shown in the drawing the pockets  
90 26 are formed by stamping up or otherwise shaping one of the bent angular end portions 7 of the lower connecting member 3 as indicated at 27. Thus when the portion 7 is riveted to the angle side member 1 the side walls for the pockets are provided by the portions 27 and  
95 said side member 1. Preferably, the pockets 26 and projection 25 are curved, as shown, on radius from the pivotal point of the member 22, so that said projection may be easily and accurately fitted into the pockets.

By providing the weighted knob 24 on the end of the extension 23, the pivoted member has a tendency to  
100 swing towards the shutter frame. Thus, when the locking device is placed with its projection in a pocket, it will remain in such position until forcibly removed therefrom.

By manipulating the bar 18 the pivoted slats may be  
105 adjusted to several positions. The number of pockets 26 depends upon the number of adjustments desired of the slats, but usually three adjustments will suffice.



Therefore, only three pockets are shown. This arrangement permits the slats to be locked in closed position and in two open positions.

In Fig. 5 a portion of a modified construction of slat 5 is shown. In this form, instead of providing a separate key-piece or lever extension, the same is made integral with the ear 13<sup>a</sup> on the slat 12<sup>a</sup>. This integral lever extension is provided with perforations 14<sup>a</sup> and 21<sup>a</sup> for the respective pivot studs 11 and 20.

10 While I have illustrated in the drawings a shutter to be made entirely of metal, it is obvious that a wooden frame may be provided with metal slats, and a manipulating device and lock, in accordance with my invention; and, obviously, the construction and arrangement 15 shown admits of considerable other modification within the scope of my invention.

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

20 1. A shutter comprising a frame, slats pivotally mounted in said frame and arranged to form openings of various sizes, and also arranged to close said openings, a manipulating device for said pivoted slats, and a locking device for said manipulating device comprising a pivotal member, a catch on said pivotal member arranged to engage a catch provided therefor on the shutter frame, and 25 a weighted extension on said pivotal member in the direction opposite to the first mentioned catch, whereby, the locking device will normally swing toward said catch on said frame by its own weight.

30 2. A shutter comprising a frame, slats pivotally mounted in said frame and arranged to form openings of various sizes, and also arranged to close said openings, said slats being provided with lever-extensions, a manipulating bar pivotally attached to each of said lever-extensions, and a 35 locking device for said manipulating bar, said locking device being arranged to hold said manipulating bar in its adjusted position.

40 3. A shutter comprising a frame, slats pivotally mounted in said frame and arranged to form openings of various sizes, and also arranged to close said openings, said slats being made with bent ears at each end, and said ears being perforated for attachment to pivot studs, a lever-extension on the ear at one end of each of said slats, a manipulating bar pivotally attached to each of said 45 lever extensions, and a locking device for said manipulating bar.

4. A shutter comprising a frame, slats pivotally mounted in said frame and arranged to form openings of various sizes; and also arranged to close said openings, said

slats being made with bent ears at each end, and said 50 ears being perforated for the reception of pivot studs, a lever-extension piece for each of said slats, said lever extension pieces being perforated for the reception of said pivot studs, and arranged in fixed relation to the respective slats, a manipulating bar pivotally attached to each 55 of said lever-extension pieces, and a locking device for said manipulating bar.

5. A metallic slat for shutters comprising a body portion having bent angular portions at each end, said bent angular portions being perforated in axial alinement, and 60 a lever extension on said body portion, substantially as and for the purpose set forth.

6. A metallic slat for shutters comprising a body portion having bent angular ears at each end, said bent angular ears being perforated in axial alinement, and a separate 65 lever-extension arranged to be mounted in fixed relation to said slat.

7. A metallic slat for shutters comprising a body portion having bent angular ears at each end, said bent angular ears being perforated in axial alinement, and a separate 70 lever-extension having a perforation therein, said lever-extension being arranged to be mounted in fixed relation to said slat adjacent to one of its ears with all of said perforations in axial alinement.

8. A frame for shutters and the like, comprising angle 75 side members, a top connecting member attached to said angle side members, said top connecting member being provided with a stiffening rib, and a bottom connecting member attached to said angle side members, said bottom connecting member being provided with a stiffening rib. 80

9. A frame for shutters and the like, comprising angle side members, a top connecting member having bent angular end portions attached to said angle side members, and having its lower edge bent to form a stiffening flange, and a bottom connecting member having bent angular end portions 85 attached to said angle side members, and having its upper edge bent to form an inclined stiffening flange.

10. A frame for shutters and the like, comprising angle side members, a top connecting member, and a bottom connecting member having bent angular end portions attached to said angle side members, the bent angle portion at one end of said bottom connecting member being 90 formed with an offset portion arranged to cooperate with the adjacent angle side member to constitute a pocket.

In testimony whereof I have signed my name to this 95 specification in the presence of two subscribing witnesses this 7th day of February, 1907, at St. Louis, Missouri.

GEORGE J. SCHEUERMANN.

Witnesses:

G. A. PENNINGTON,  
J. B. MEGOWN.