

No. 845,652.

PATENTED FEB. 26, 1907.

M. E. LA BERGE.
ILLUMINATED SHOW CASE.
APPLICATION FILED MAY 23, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

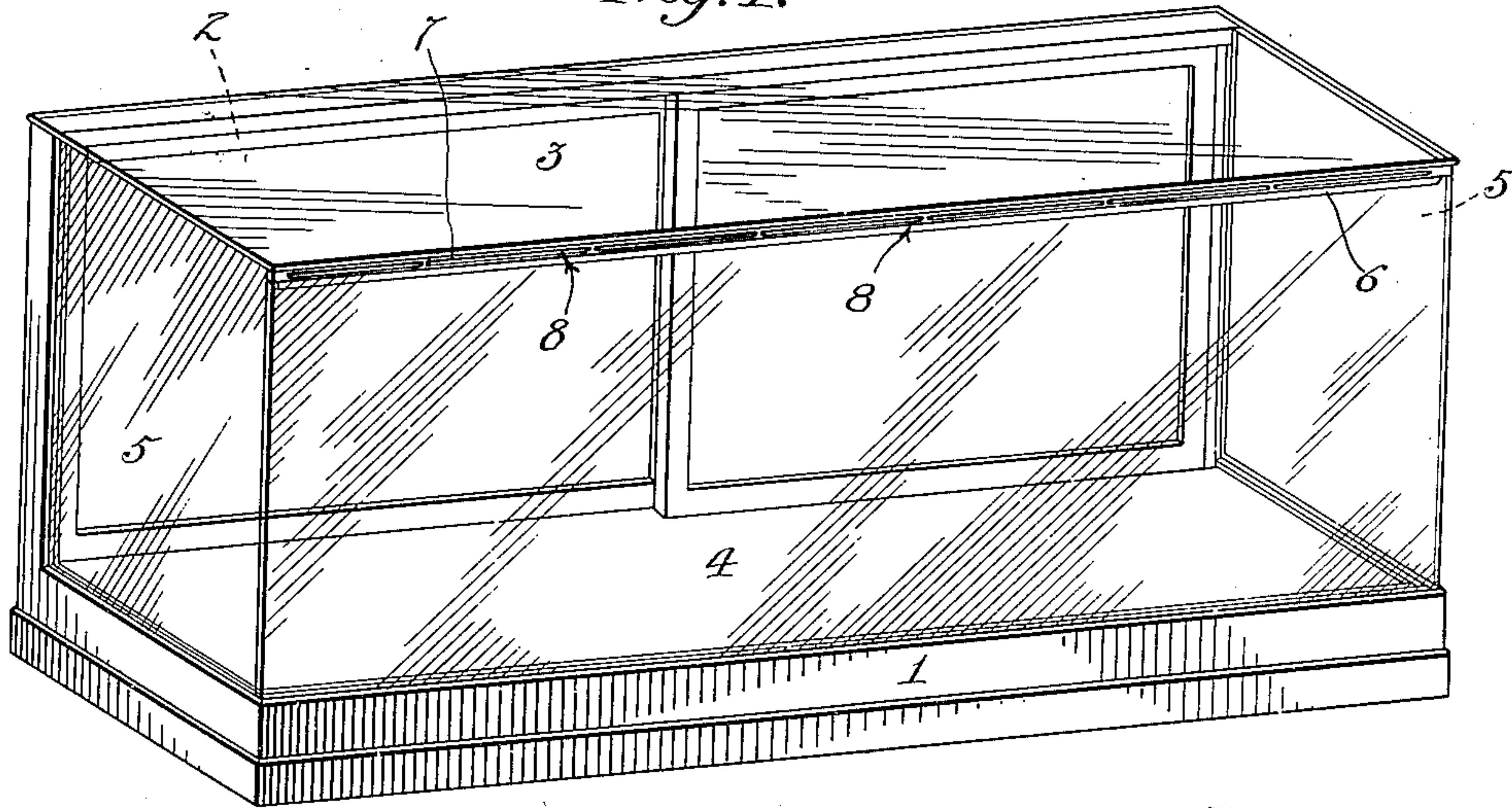


Fig. 2.

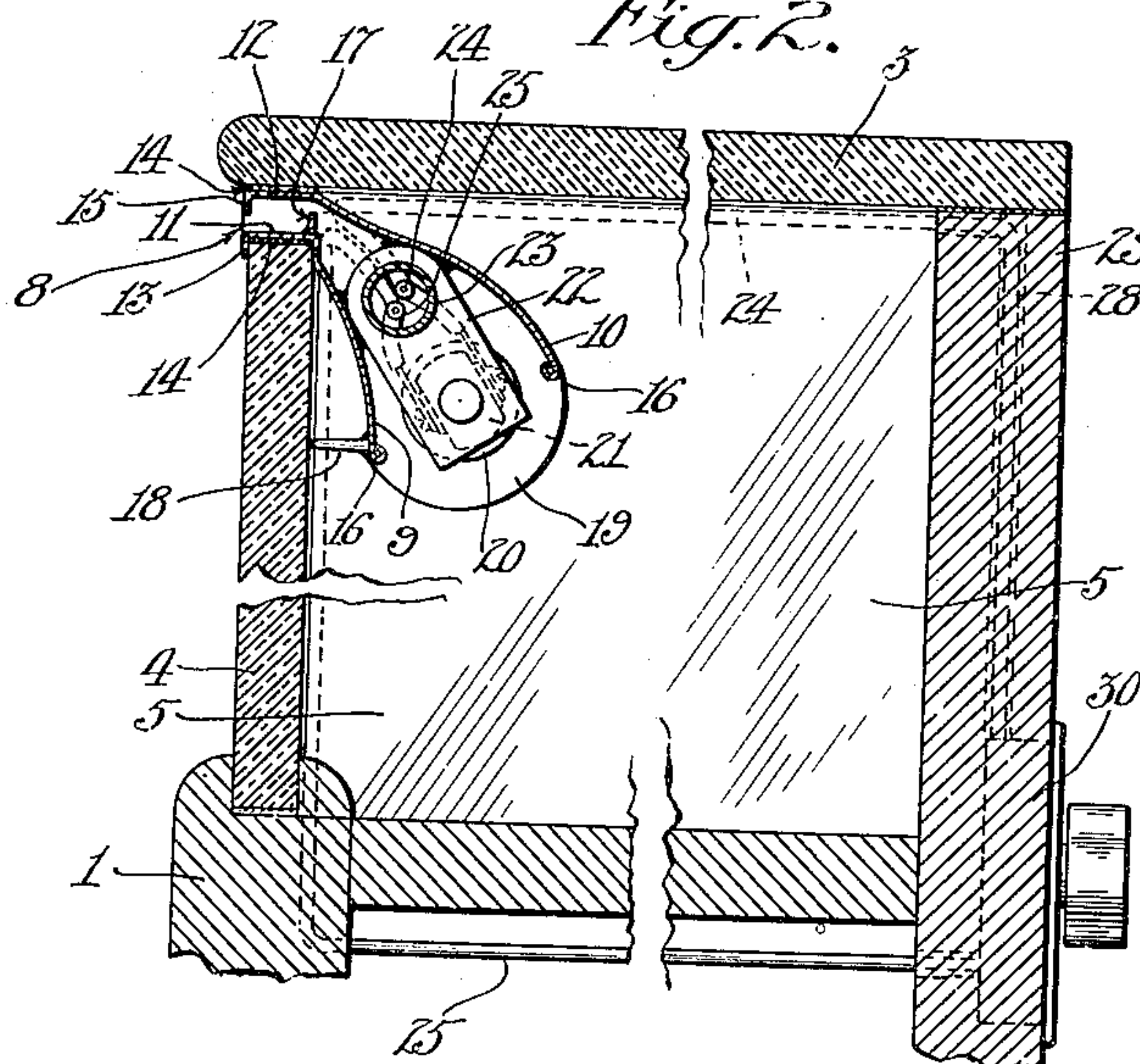


Fig. 4.

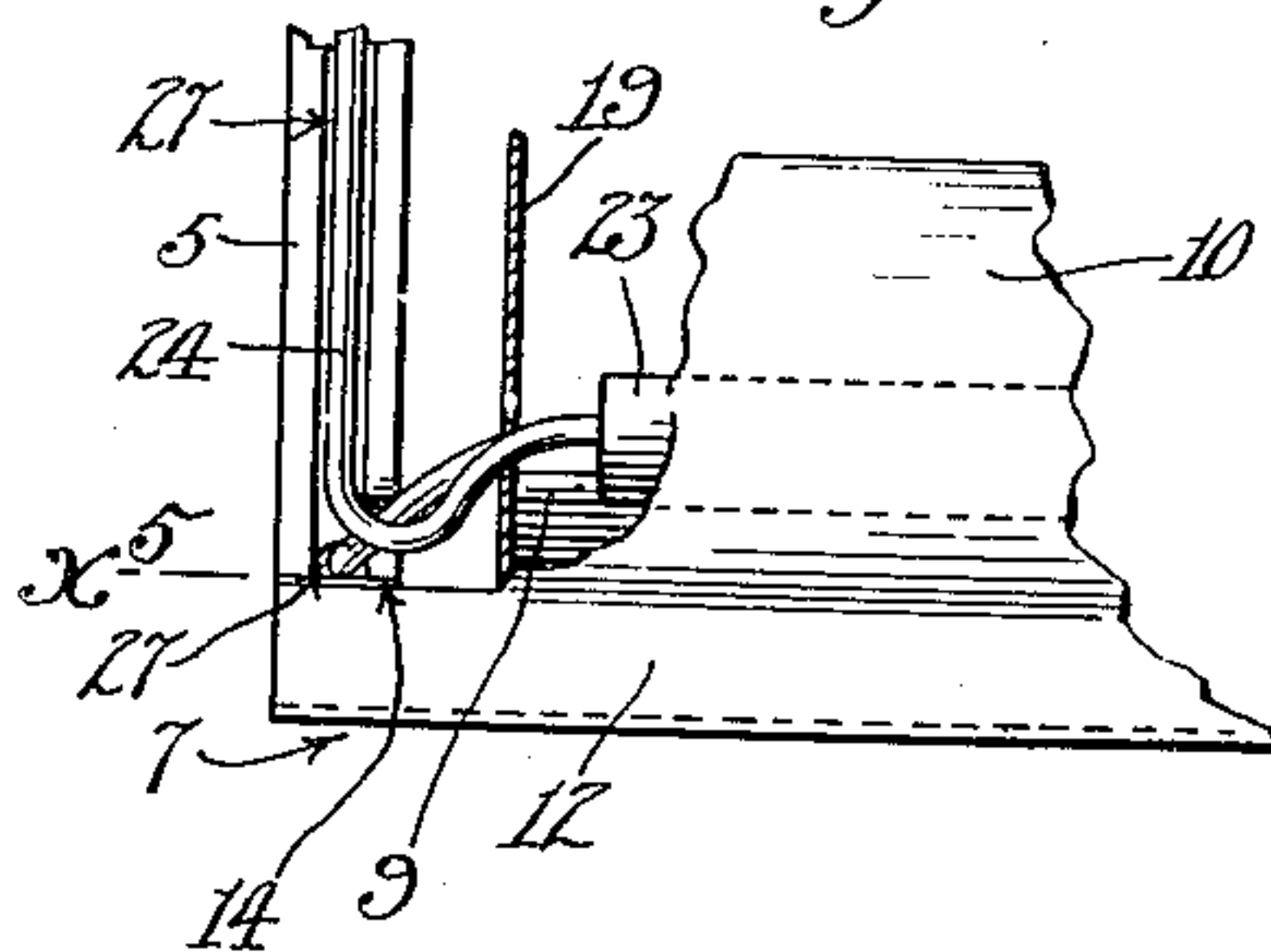


Fig. 5.

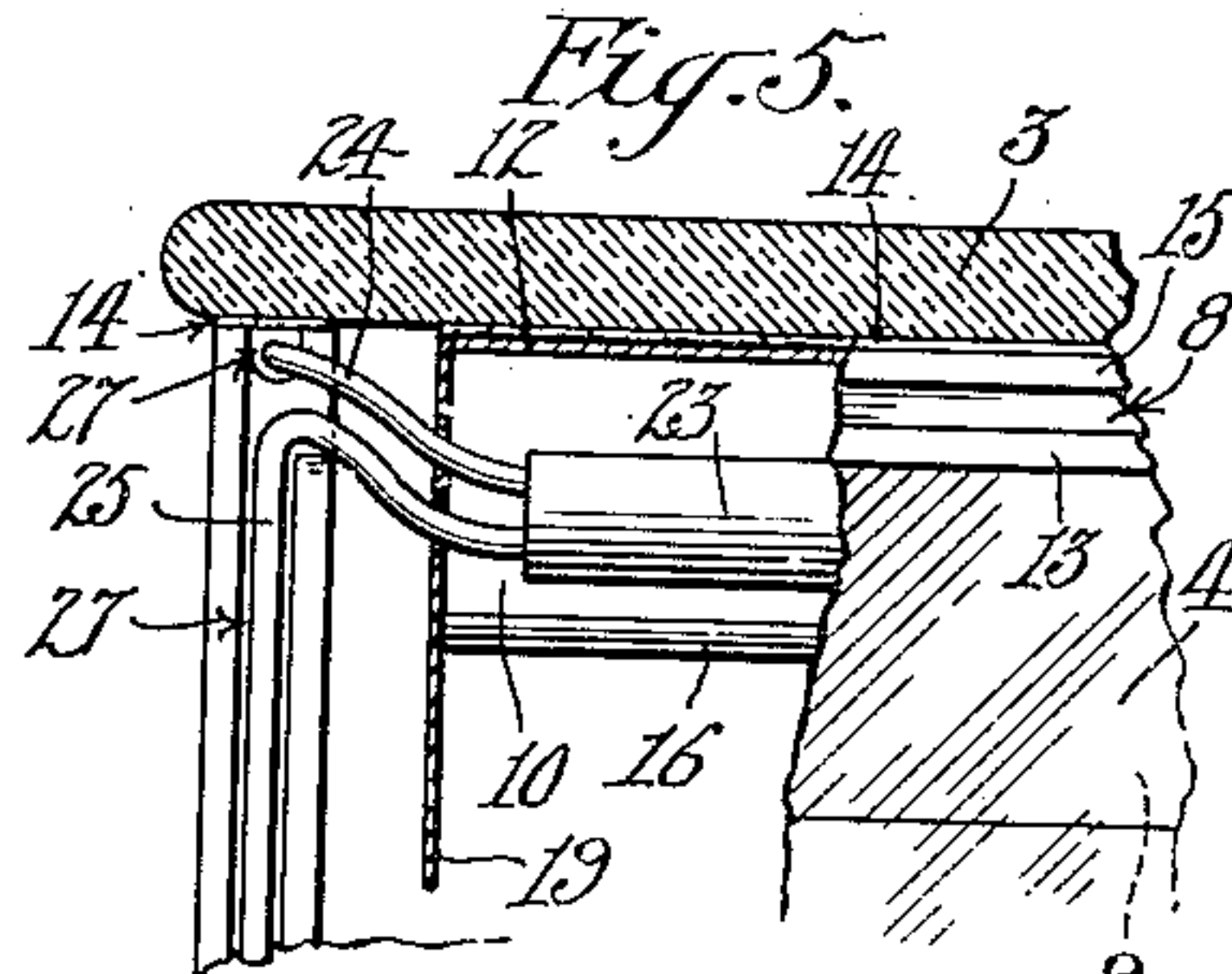
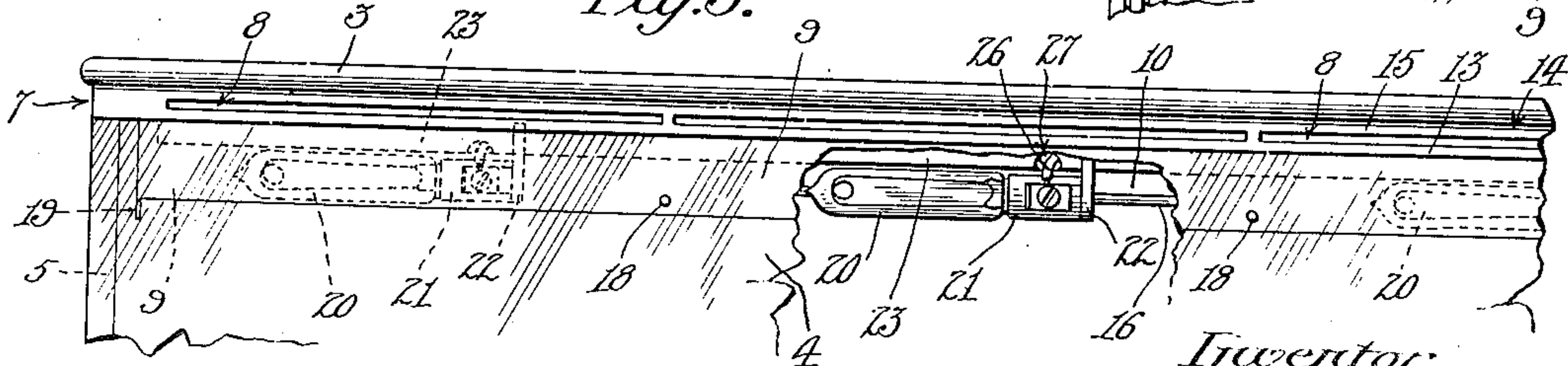


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 6.

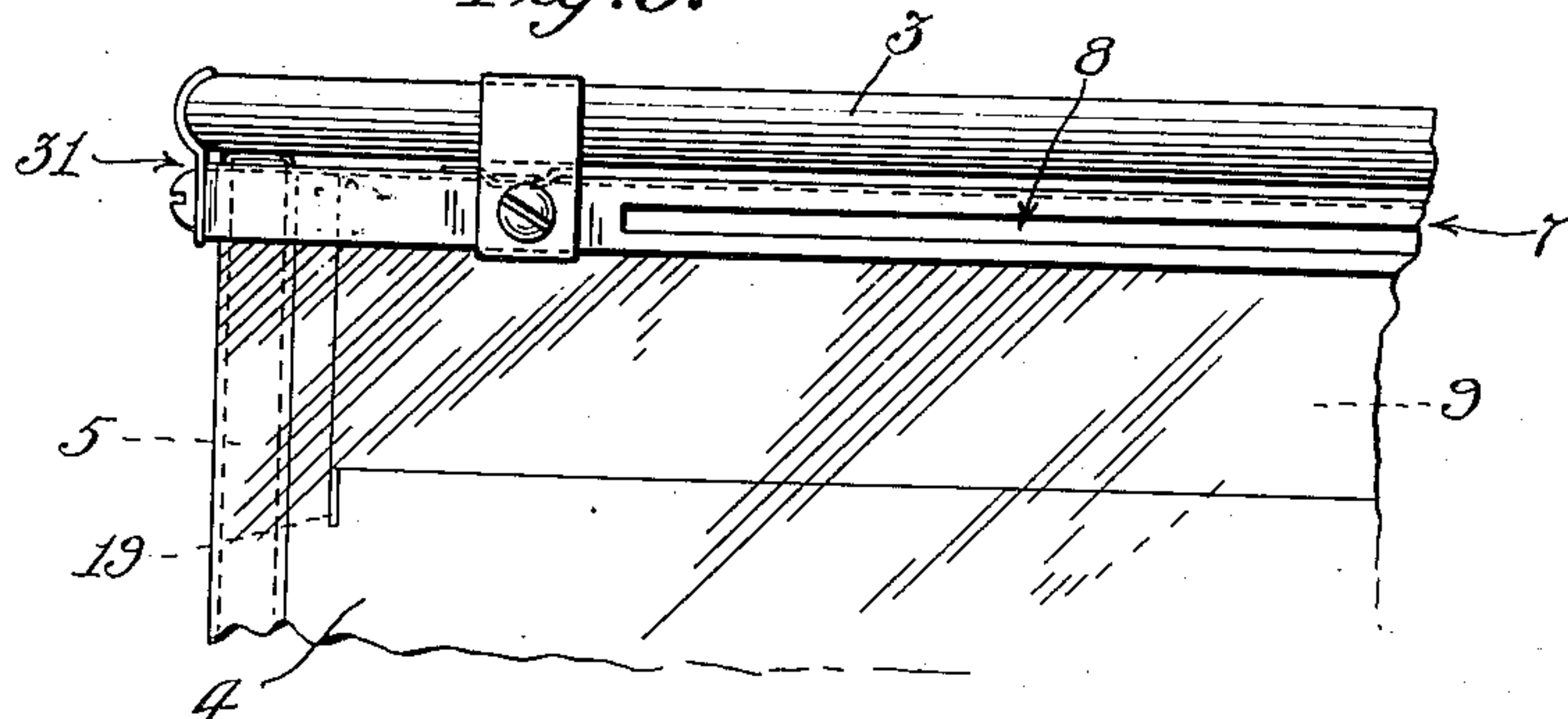


Fig. 7.

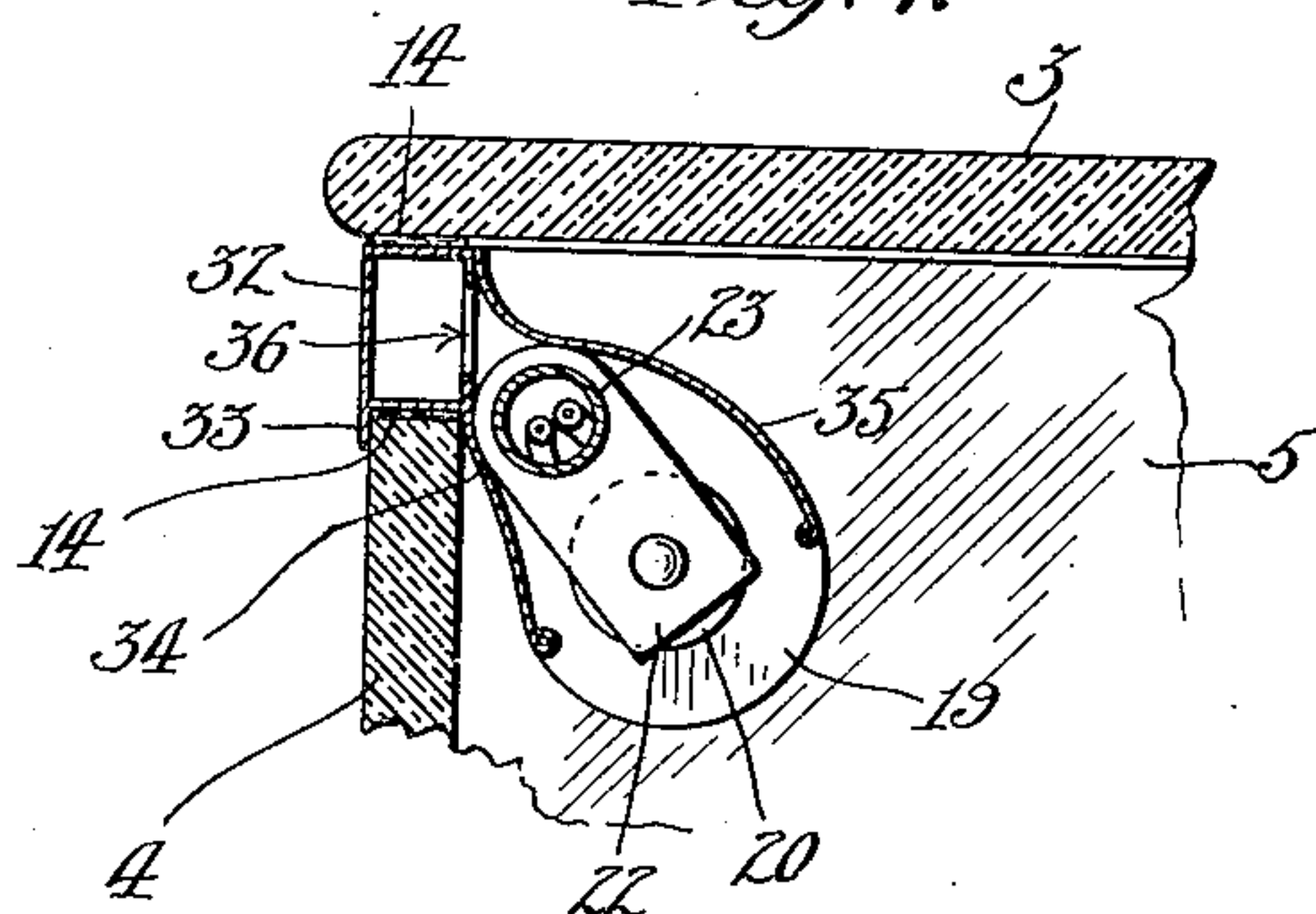


Fig. 8.

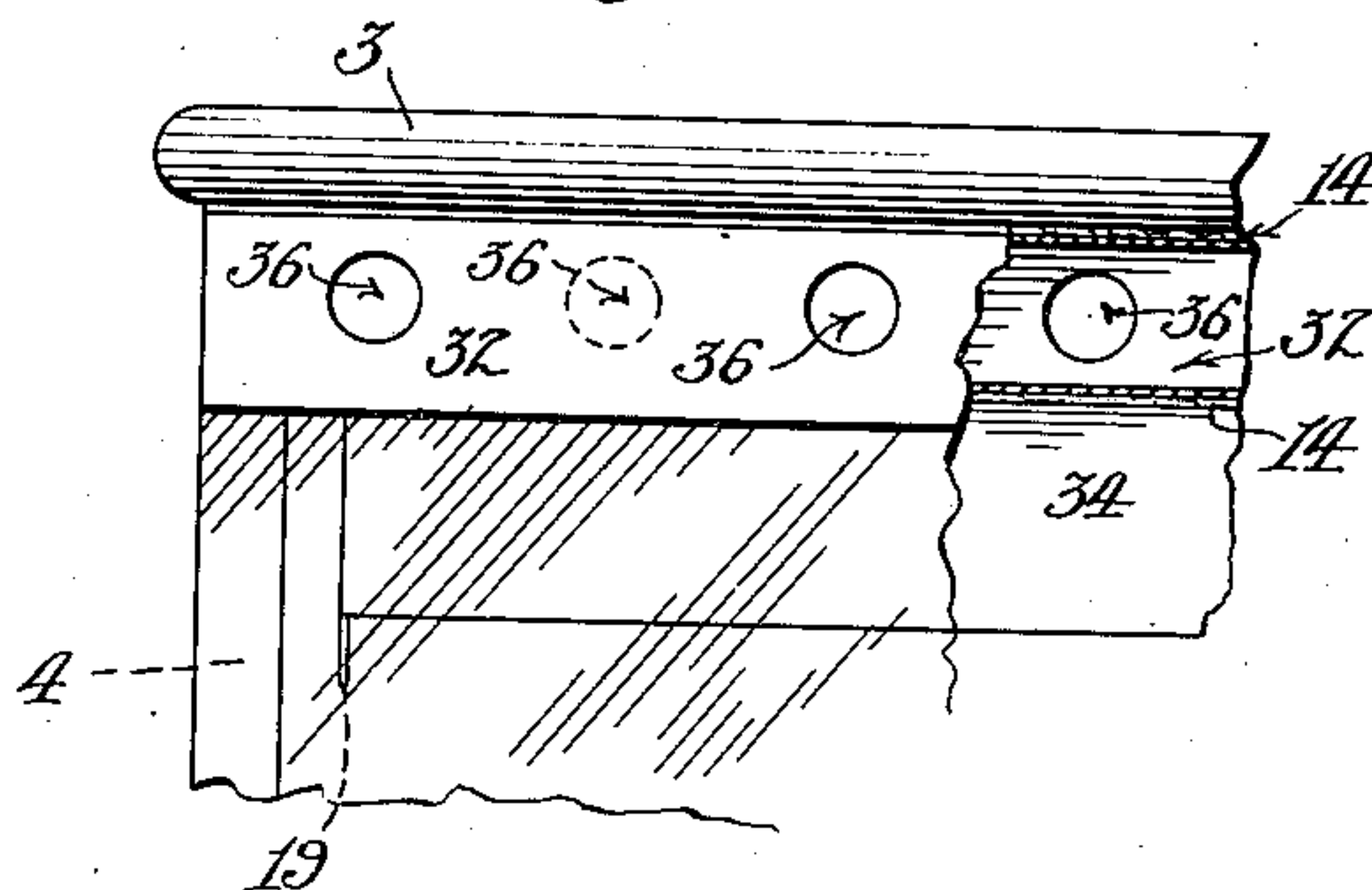


Fig. 9.

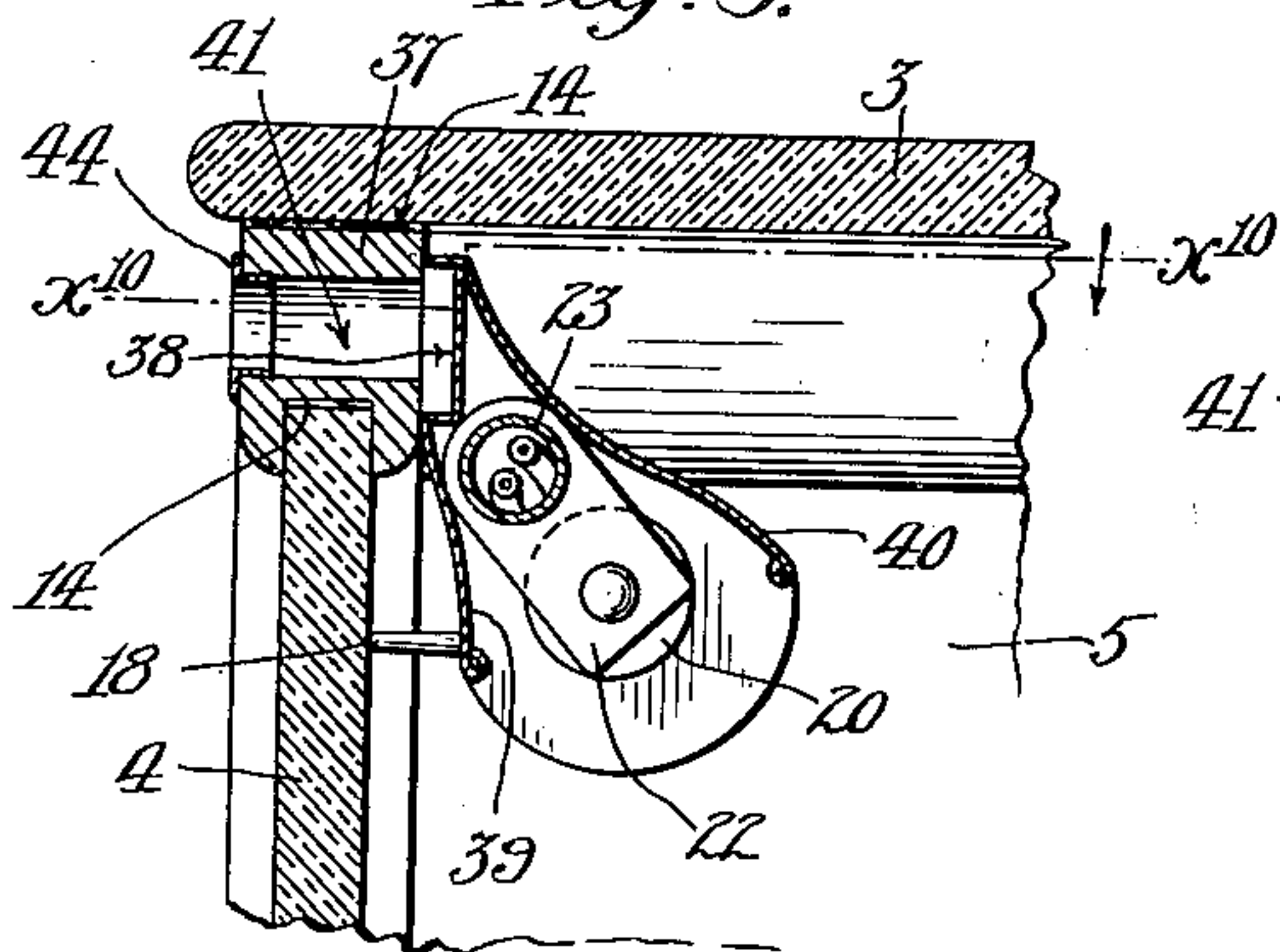
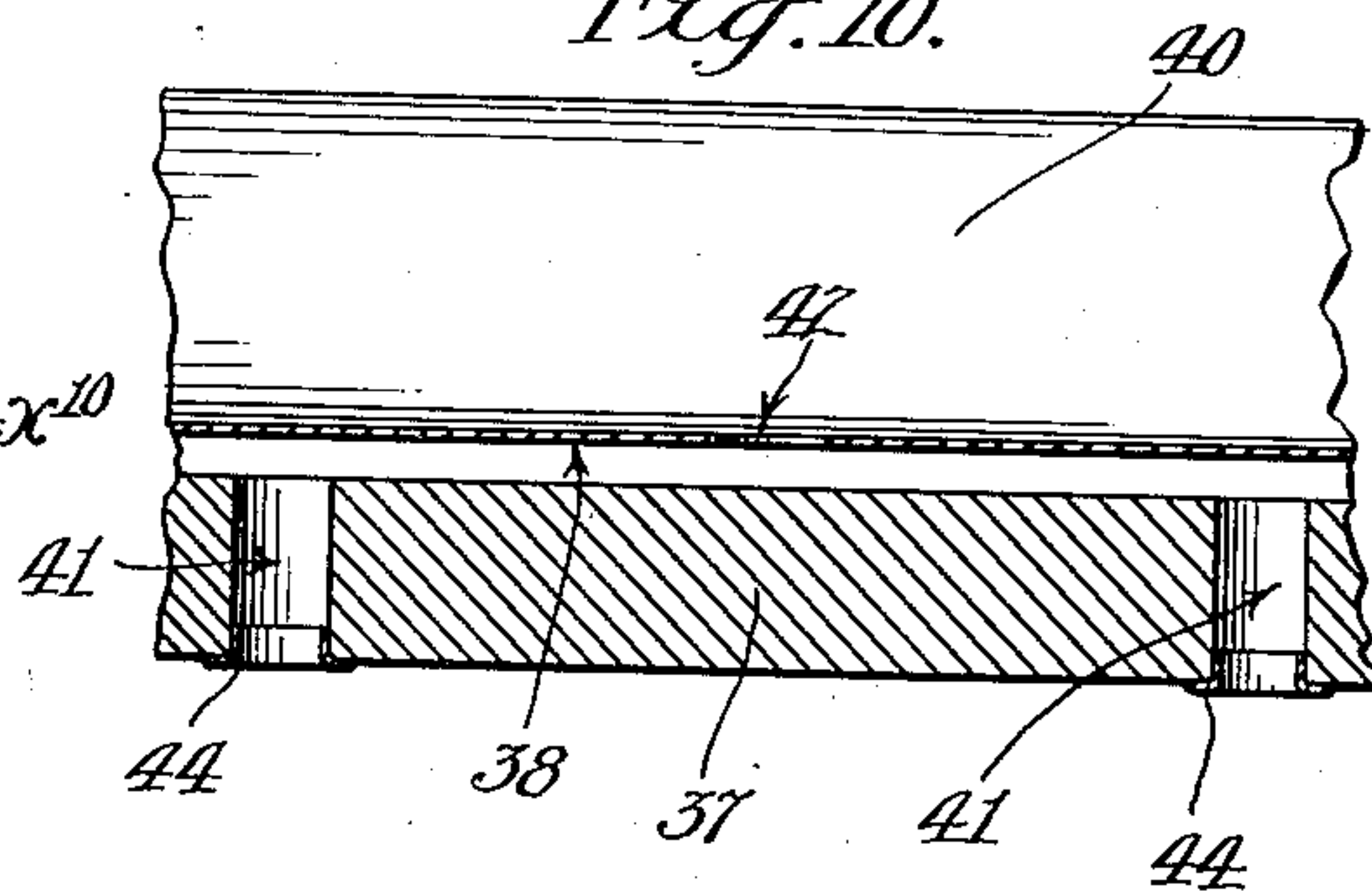


Fig. 10.



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UNITED STATES PATENT OFFICE.

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ILLUMINATED SHOW-CASE.

No. 845,652.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed May 23, 1906. Serial No. 318,428.

To all whom it may concern:

Be it known that I, MAXIMILIAN E. LA BERGE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Illuminated Show-Case, of which the following is a specification.

This invention relates to means for illuminating show-cases, particularly show-cases which are formed for the greater part of glass—for example, what are known as "all-glass" show-cases.

The main object of the present invention is to provide means for supporting the reflector in a show-case, which supporting means will also serve as an element in the construction or support of the show-case elements.

A further object of the invention is to provide for the ventilation of the show-case and for carrying off the heat developed by the illuminating agent.

Another object of the invention is to prevent as far as possible the entrance of dust into the show-case through the ventilating means.

Another object of the invention is to conceal the leading-in wires for the illuminating means and do away with the usual tubes or pillars used for this purpose, which are objectionable in appearance.

The accompanying drawings illustrate the invention.

Figure 1 is a perspective of the show-case, showing the general application of the invention. Fig. 2 is a transverse broken sectional view of the show-case. Fig. 3 is a broken front elevation. Fig. 4 is a fragmental plan. Fig. 5 is a fragmental section on line x^5 in Fig. 4. Fig. 6 is a broken front elevation showing a different form of the reflector-support and ventilator. Fig. 7 is a transverse sectional view of another form. Fig. 8 is front elevation of the form shown in Fig. 6, partly broken away. Fig. 9 is a transverse section showing another form of the invention. Fig. 10 is a horizontal section on the line $x^{10} x^{10}$ in Fig. 9.

Referring to Fig. 1, the show-case is therein illustrated comprising a base 1, back member 2, and top, front, and end glass plates 3, 4, and 5, plates 4 and 5 being herein referred to as "wall-plates." The reflector (indicated at 6) is attached within the show-case along the upper front corner thereof, extending from one end to the other of the case, said

reflector being provided with means for supporting lamps therein, means for reflecting the light from the said lamps rearwardly and downwardly into the show-case, means in the form of a strip 7, attached thereto and extending within the joint between the top plate 3 and wall-plate 4 to support the reflector and means, such as openings indicated at 8 in said strips for establishing communication from the inside to the outside of the case between the top of the front plate and the bottom of the top plate, so as to maintain a condition of ventilation and allow escape of the heated air rising from the lamps. This reflector also serves as an element in the show-case construction, as will be more fully understood on reference to Figs. 2 and 3, wherein the reflector element is shown more in detail. The reflector consists of two longitudinal reflector members or strips 9 10, having forward extensions or attachments in the form of longitudinal strips 11 12, which are secured together, one above the other, to form an elongated box-strip, which serves for support and attachment of the reflector as a whole. The lower strip 11 is formed as a channel-strip, having a flange 13 at its front end and the strip 9 at its rear edge, the parts being adapted to fit over and engage on each side of the front plate, the said strip resting on top of said plate and the said flanges engaging the plate to hold the strip and the attached reflector on the front plate. The top plate 12 extends beneath the top glass plate of the show-case and is held down on the front glass plate 4 by the pressure and weight of said top glass plate and by the fastening means, such as cement or metal fastenings, as hereinafter set forth. Cushions 14 are provided between the top and bottom strips 11 12 and the respective glass plates 3 4. The top plate 12 has along its forward edge a downwardly-extending flange 15, which is cut away to form perforations 8 for the passage of air through the box-strip. At the rear edge of the lower strip 11 a flange or shoulder 17 is provided to act as a dust-arrester, this shoulder being formed, for example, as a flange on strip 11.

The outer ends of the reflector-strips 9 10 may be rolled or beaded, as shown at 16, to stiffen the same and give a finish, and the front reflector-strip 9 has pins or studs 18 to engage the rear face of the front plate 4 to brace the reflector and prevent it from sag-

ging. The reflector strips or plates 9 10 are connected at each end by an end plate 19, which holds the reflector-strips in proper relation, the reflector-strips extending rearwardly and downwardly in diverted directions, so that the reflector is wider at the bottom than at the top, and is directed in a general way toward the center of the case.

The illuminating means preferably consists of electric lamps, (indicated at 20,) which are mounted on sockets 21, carried by arms 22, extending from a longitudinal tube 23, which extends from end to end of the reflector and is supported by arms 22, attached to the reflector-plates. The wires or leads 24 25, which supply the lamps with current, extend longitudinally through this tube, branch wires 26 being connected to said lead-wires and to the lamps, and said branch wires extending through holes 27 in the said tube. These leads are supplied with current through connections extending, preferably, within the joints between the glass plates, so as to be concealed, said wires 23 24 being extended through the top reflector-plate and respectively along the top and front edge of one of the glass end plates 5, said glass plate having grooves 27 in its top and front edges for the reception of these wires. The wire 24, which extends over the top of the end plate, is continued down through a bore 28 in the back post 29 of the case to connect with a switch 30, which establishes connection with the main supply circuit in the usual manner, and the wire 25 extends below the bottom of the case to connect with the same switch, said switch being located, preferably, at the back of the case.

In assembling the case the box-strip of the reflector is placed on the top of the front plate, its flanges 13 engaging with the front plate to hold the members from lateral movement, and the other glass plates having been assembled the top plate 3 comes to rest on top of the upper strip element of the box-strip in such manner as to hold the reflector in place. In practice the said box-strip or the cushioning means 14 thereon may be cemented in such manner as to bind the parts firmly together, the box-strip therefor constituting a construction element of the show-case, or, if desired, the box-strip may form an element of metallic connections extending through the joints and binding the glass plates to the frame. Fig. 6 shows such a construction where the end of the box-strip is fastened to a corner-fitting 31 of the usual type, which is connected by binding devices extending between the joints of the glass plates to the frame in the well-known manner to bind the elements of the case together.

Figs. 7 and 8 illustrate an embodiment of the invention wherein the box-strip 32 is formed as a rectangular tube provided with

flanges or downward extensions 33 34, engaging with the front and rear walls of the front glass plate 4, the extension 34 forming also one wall of the reflector and the other wall 35 of the reflector being attached to the top of the inner face of the box-strip. Said box-strip is provided with holes 36 in its front and rear walls, said holes alternating, so as to screen or cut off the light from sight at the front of the case, while permitting free passage of air.

The invention is also applicable to a wooden frame-case, as shown in Figs. 9 and 10, the wooden top strip 37 at the top of the front glass plate of the case having a box-strip 38, attached to its rear face and carrying reflector-plates 39 40, and said wooden strip being perforated, as at 41, said perforations alternating with perforations 42 in the wall of the box-strip to allow ventilation while cutting off the access of light to the front of the case. These perforations 43 may be eyeleted, as at 44. In each of the above forms the structure of the lamp-supporting means 21 22 23 may be substantially the same as that first described.

The lamps are supported in the reflector in such manner that the light therefrom is reflected downwardly and inwardly into the case to illuminate the articles therein and is cut off from the top of the case and from the front, so that it does shine directly into the eyes of the person inspecting the case from the front or the salesman at the back. When the lights are in operation, the warmth developed thereby in the case tends to cause an up-draft of air, and the current of air resulting will pass upwardly from the reflector and through the rear and front openings in the box-strip, thereby continually ventilating the case. Under some conditions, however, as when the door is opened or articles are being removed, there may be temporarily an in-draft of air from the box-strip, and under these conditions the upwardly-extending flange (shown in Fig. 2) or the lower edge of the perforations in Figs. 7 to 10 at the rear of the box-strip will tend to arrest the dust and prevent its passage into the case.

What I claim is—

1. A show-case comprising a glass top plate and glass wall-plates, a box-strip extending between the top plate and the wall-plates and fastened to said plates, said strips having openings for passage of air therethrough, ventilator-strips extending from the box-strip within the case, and lamp-supporting means extending between the reflector-strips and supported by a box-strip.

2. A show-case comprising a top plate and wall-plates, a box-strip extending in the joint between the top plate and one of the wall-plates and having downwardly-extending flanges engaging inside and outside the wall-plates, said box-strip being perforate for the

passage of air therethrough, and a reflector consisting of strip extensions from the box-strip.

3. A show-case comprising a top plate and
5 wall-plates, a box-strip extending between the top plate and one of the wall-plates, said box-strip consisting of upper and lower strip elements separated to form a ventilating-opening between them and provided with
10 strip extensions projecting into the case to form a reflector.

4. A show-case comprising a top plate and wall-plates, a box-strip extending between the top plate and one of the wall-plates, said
15 box-strip consisting of upper and lower strip elements separated to form a ventilating-opening between them and provided with strip extensions projecting into the case to form a reflector, the lower strip element
20 having downwardly-extending flange means engaging inside and outside the wall-plate.

5. A show-case comprising a top plate and wall-plates, a box-strip extending between the top plate and one of the wall-plates, said
25 box-strip consisting of upper and lower strip elements separated to form a ventilating-

opening between them and provided with strip extensions projecting into the case to form a reflector, the upper strip elements having a downwardly-extending flange and
30 the lower strip element having an upwardly-extending flange portion at its inner edge.

6. A show-case comprising a top plate and wall-plates, a box-strip extending between the top plate and one of the wall-plates, said
35 box-strip consisting of upper and lower strip elements separated to form a ventilating-opening between them and provided with strip extensions projecting into the case to form a reflector, a tube extending longitudi-
40 nally between the reflector-strips, electric-lamp supports on said tube, and electric-supply wires extending through the said tube and having connections to the electric-lamp
45 supports.

In testimony whereof I have hereunto set my hand, at Los Angeles, California, this 17th day of May, 1906.

MAXIMILIAN E. LA BERGE.

In presence of—

ARTHUR P. KNIGHT,
BELL HALL.