

(No Model.)

2 Sheets—Sheet 1.

J. MÜHLHAÜSER.
CABINET FILE.

No. 418,957.

Patented Jan. 7, 1890.

Fig. 1.

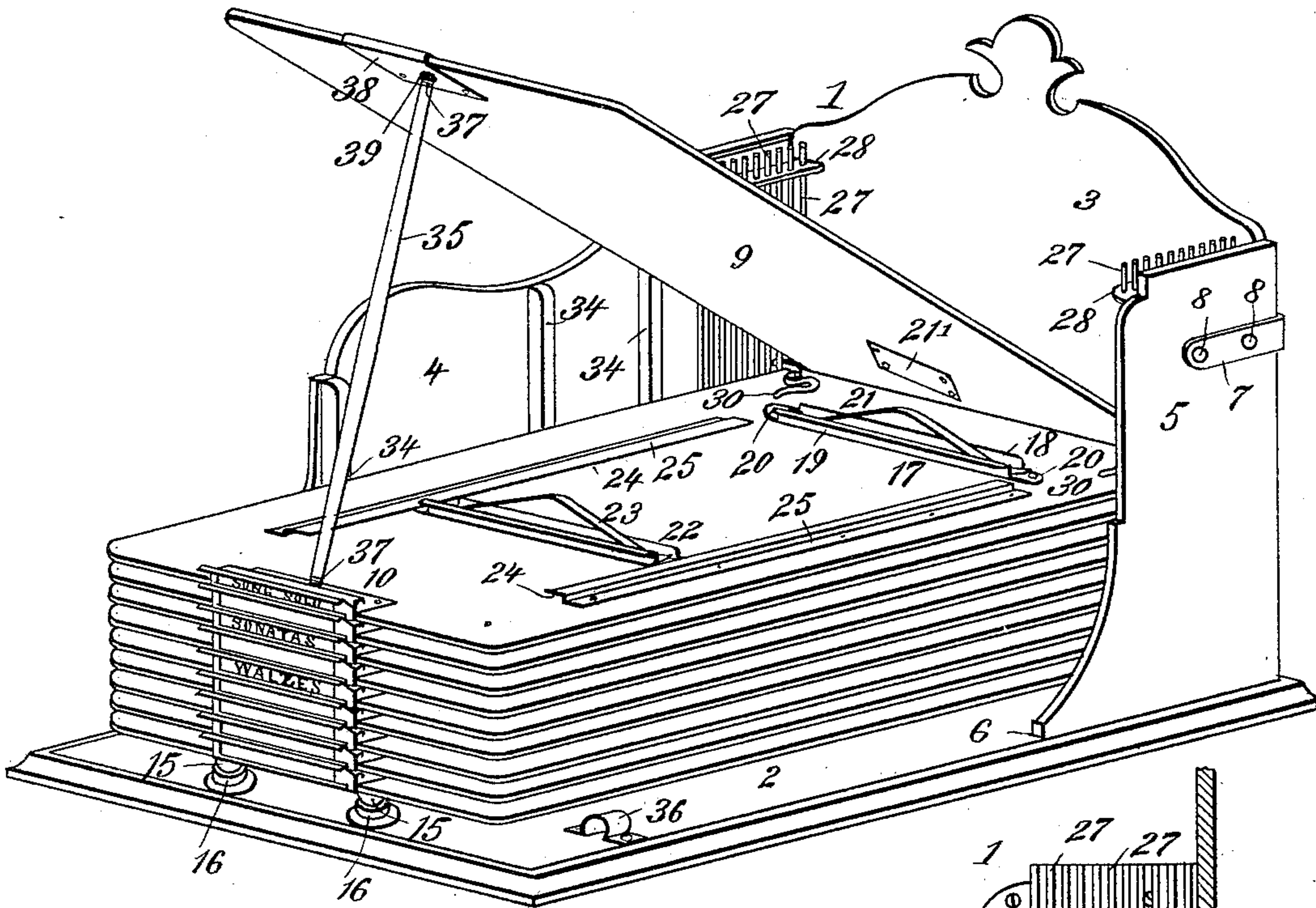
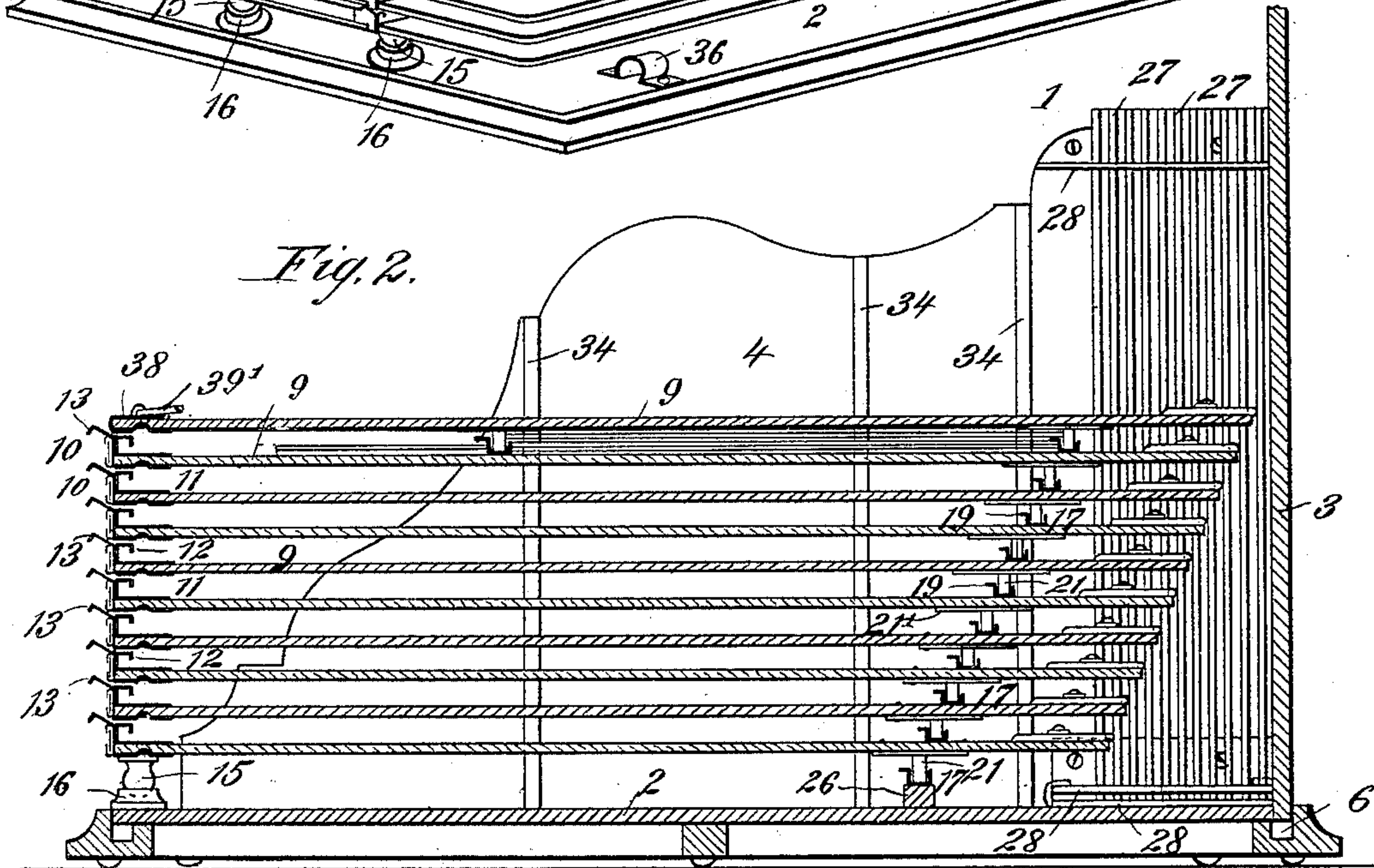


Fig. 2.



WITNESSES:

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Co. Sedgwick

INVENTOR:

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BY *Munn & Co.*
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

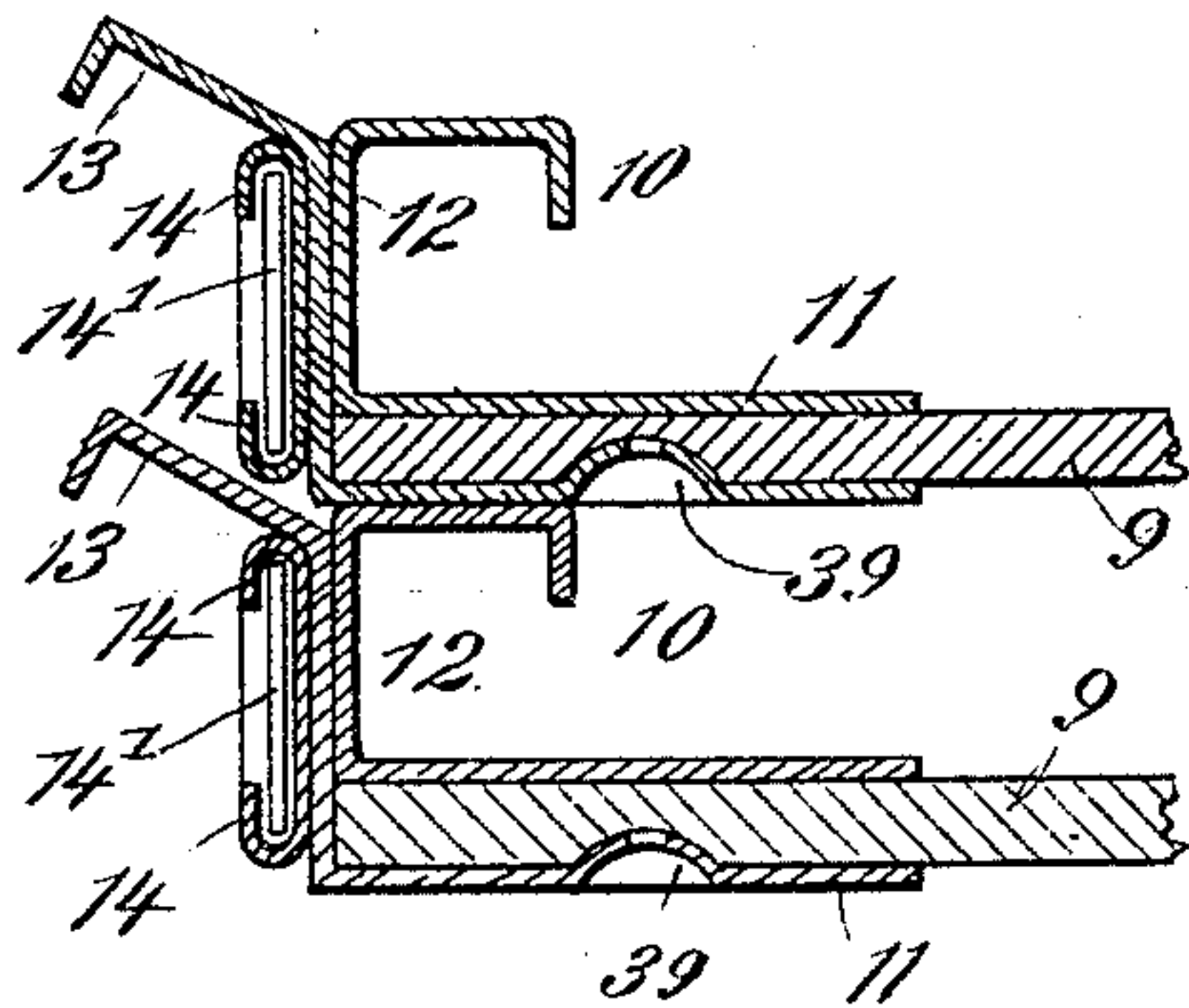


Fig. 4.

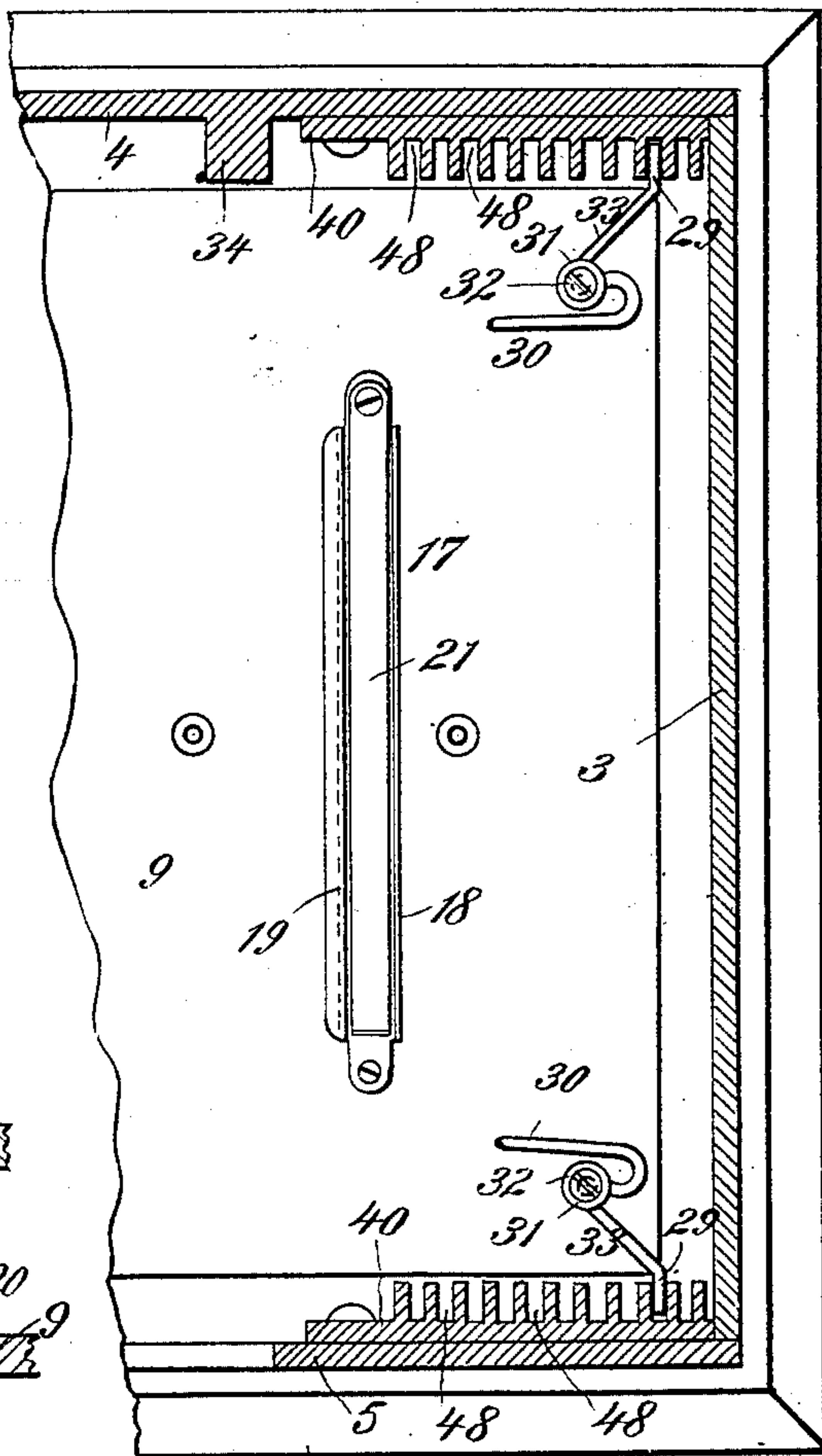


Fig. 5.

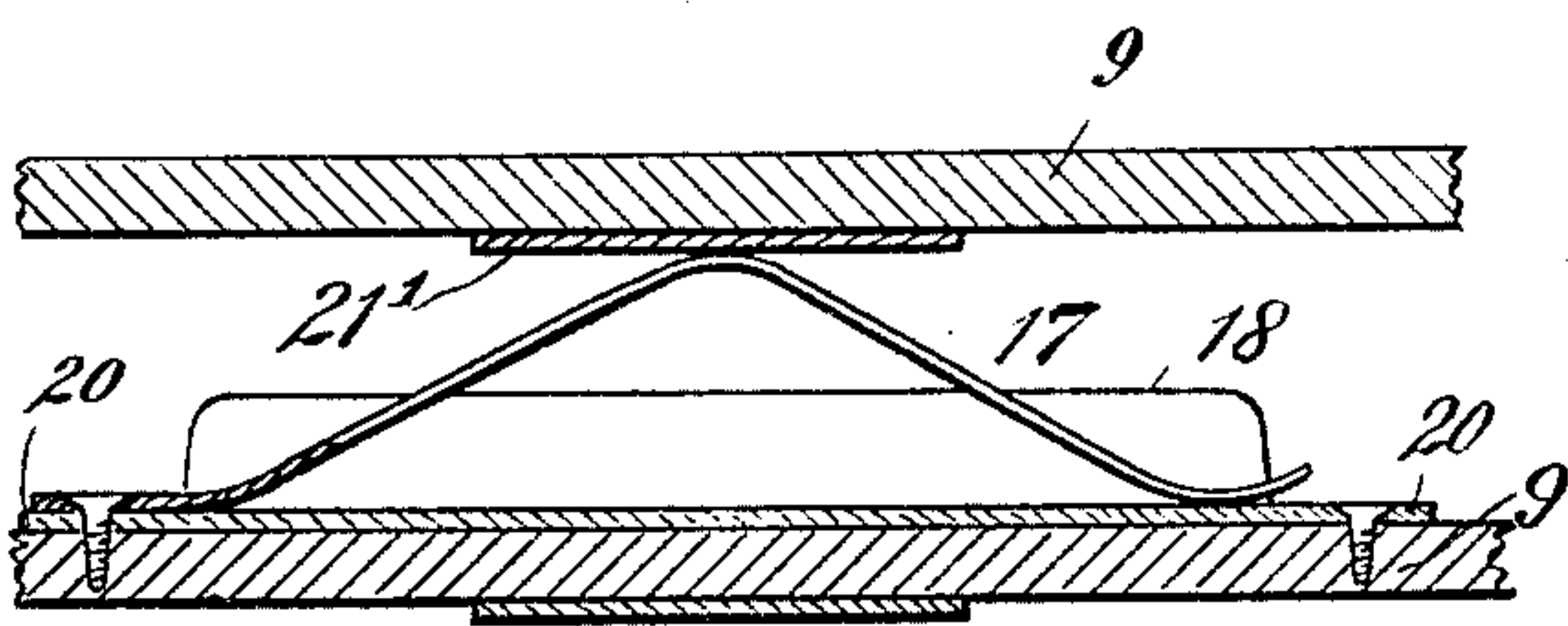


Fig. 6.

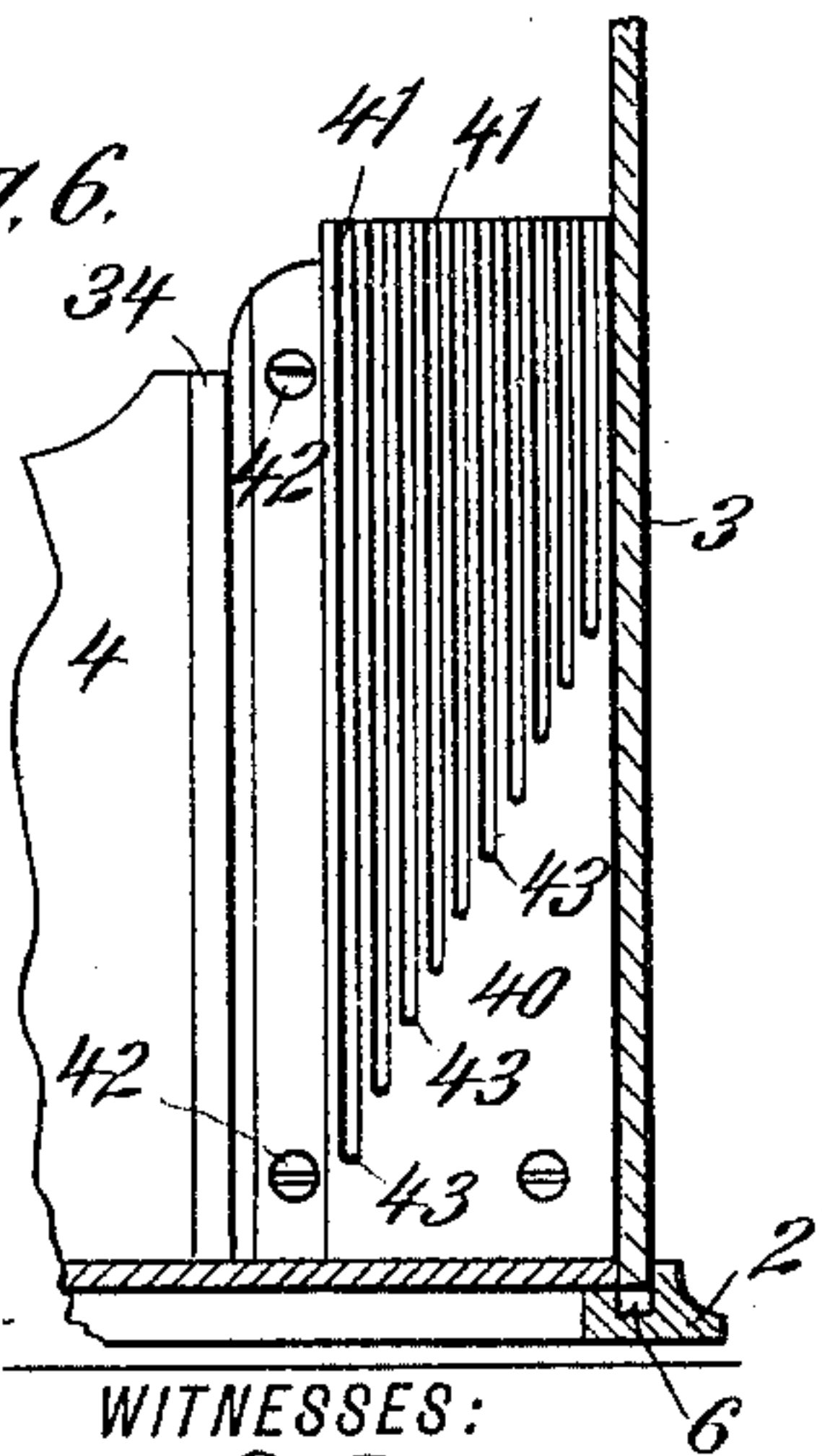


Fig. 7.

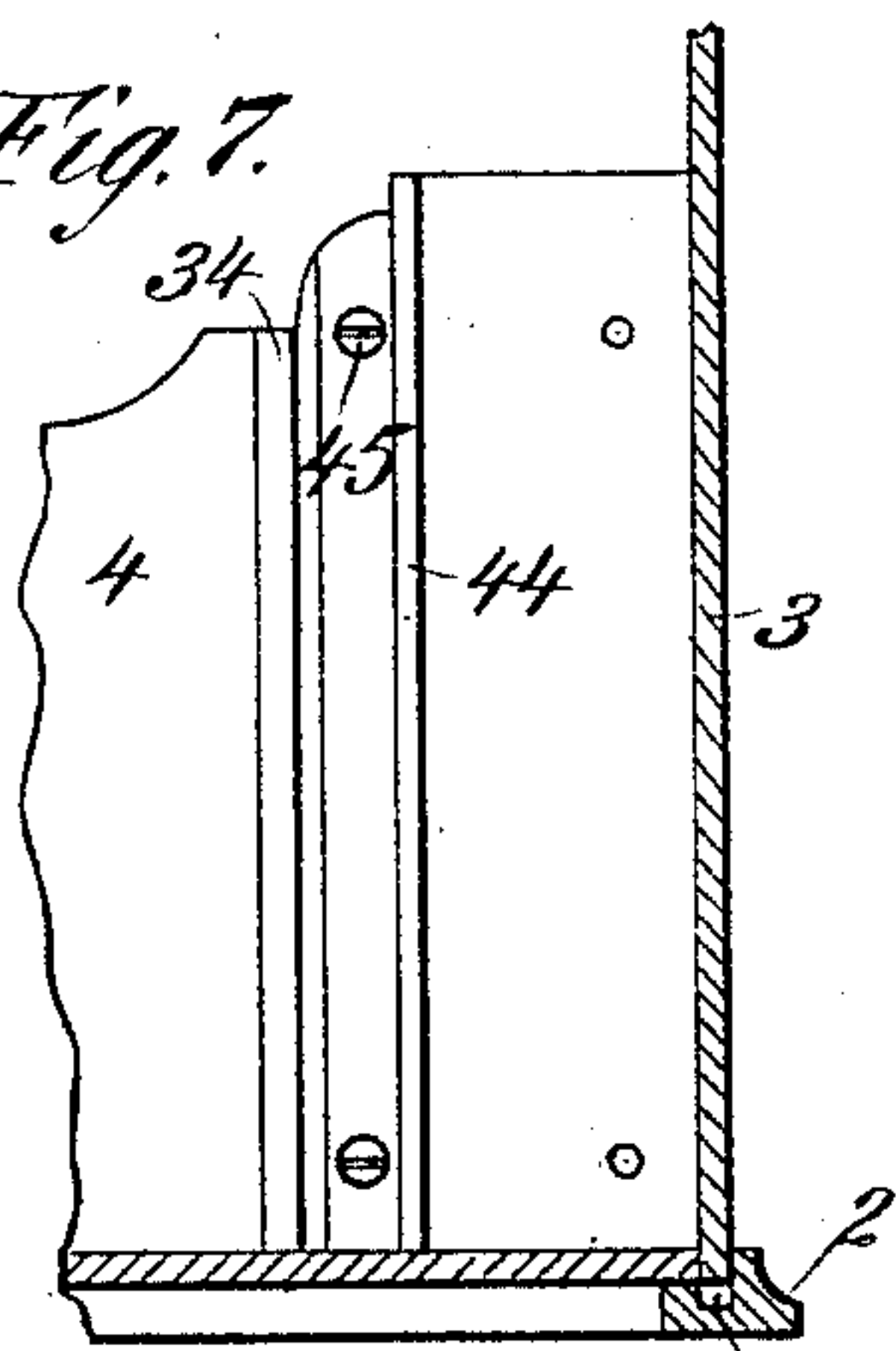
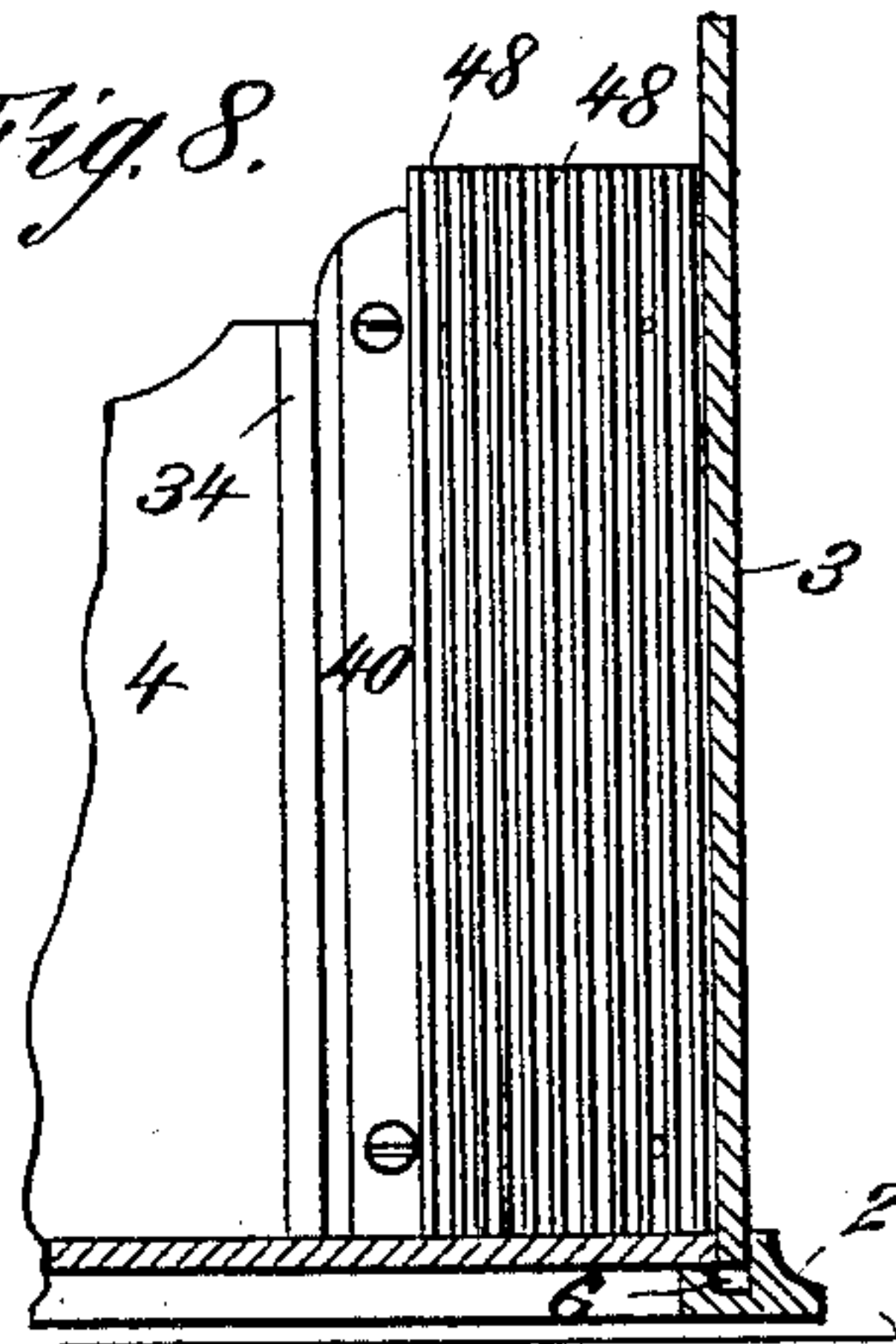


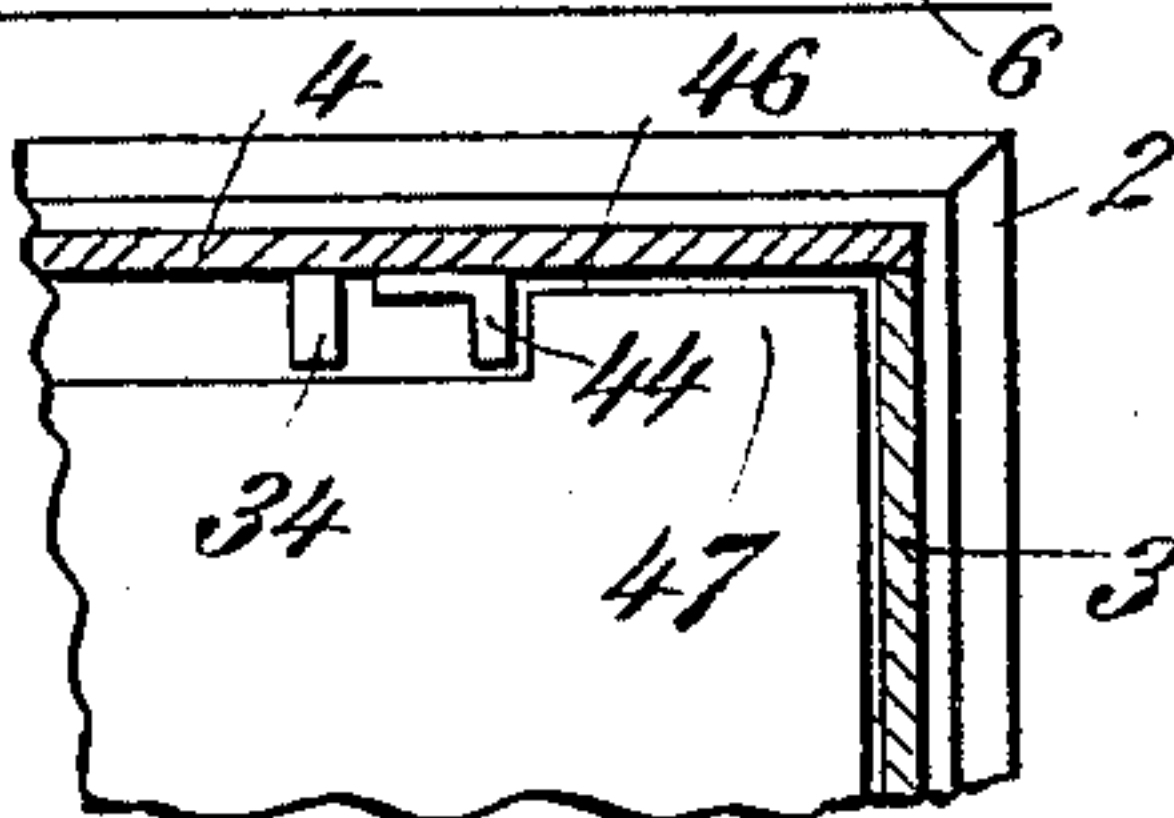
Fig. 8.



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Fig. 9.



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UNITED STATES PATENT OFFICE.

JOHN MÜHLHAÜSER, OF ROCHESTER, NEW YORK.

CABINET-FILE.

SPECIFICATION forming part of Letters Patent No. 418,957, dated January 7, 1890.

Application filed April 6, 1889. Serial No. 306,157. (No model.)

To all whom it may concern:

Be it known that I, JOHN MÜHLHAÜSER, of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Cabinet-File, of which the following is a full, clear, and exact description.

This invention relates to music-racks or portfolios serving as receptacles for sheets of music or drawings or other papers and periodicals filed away for reference or use.

The invention has for its object to provide a receptacle by means of which sheet-music or other sheets, papers, or periodicals may be compactly assorted and held in filed position, and access may be readily had to any portion of the papers for the purpose of removal and inspection without disturbing the rest of the papers.

The invention consists in a cabinet-file and in details thereof, constructed and arranged as hereinafter described and claimed.

This invention embraces in its general features a frame or casing, a number of compressing horizontal, vertically-movable, and tilting rigid panels loosely mounted in the frame and having automatic stops for limiting the endwise movement of sheets of music or other papers laid between the panels, means for connecting the rigid panels at their inner ends to the frame and permitting them to be raised and lowered horizontally and tilted, and a movable support for holding any number of the panels in tilted position.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the invention, showing the top panel held in tilted position. Fig. 2 is a longitudinal vertical section of the invention. Fig. 3 is a detail view showing the outer end of a pair of panels in longitudinal section and broken away. Fig. 4 is a horizontal section of the inner end of the invention broken away. Fig. 5 is a transverse vertical section of a pair of panels broken away and showing an automatic stop. Figs. 6, 7, and 8 are detail views, partly in vertical section and broken away, of the inner end of the frame, showing modifications of one of the supports for the panels; and Fig. 9 is a detail view, partly in horizontal

section and broken away, of the inner end of the frame, showing another modification of one of the supports for the panels.

1 indicates a frame or casing, which may be constructed of any size and shape and of any suitable material, and, as here shown, preferably formed with a base 2, a vertical back 3 at the rear end of the base, a side 4, extending from the back 3 nearly to the front end of the base, and a side 5, extending a short way from the back 3 toward the front end of the base and leaving practically an open side to the frame.

The base 2, back 3, and sides 4 5 may be permanently secured together, but are preferably so connected that they may be detached from each other and compactly folded up for transportation, and also to be rendered reversible, so that file can be adjusted to any corner of a room.

As shown, the bottom edges of the back 3 and sides 4 and 5 are inserted in grooves 6 in the base 2, and detachably secured in place by screws or other suitable means, and the sides 4 and 5 are detachably secured to the back 3 by annular metallic straps 7 and screws 8.

Located and loosely mounted on the base 2 are any desired number of rigid horizontal panels 9, of wood, metal, or other suitable material, having sufficient weight to compress and hold in smooth arranged position sheets of music, drawings, papers, or periodicals. The panels 9 are normally spaced or separated from each other, so as to receive a number of sheets or periodicals between them, preferably by means of the metallic supports 10 at their front edge, formed with the flanges 11, clamping and secured to the front edge of the panels by screws or rivets, the vertical and inwardly-projecting L-shaped projection 12, on which the forward end of the panel above rests, and the outwardly-extending L-shaped projection 13, serving as a handle to lift the panels at their forward end. The supports 10 are also formed with flanges 14 on their face, bent to form top and bottom grooves, in which are located removable slides 14', each provided with a different title, to indicate the sheets, papers, or periodicals filed or to be filed—as, for example, in the case of sheet-music, having the titles of different kinds or pieces of music. The bottom panel 9 is pro-

vided at its forward end and on its under side with a pair of knobs or supports 15, which rest in suitable socket-plates 16 on the forward end of base 2.

5 The panels 9 are spaced or separated from each other adjacent to their rear ends by means of supports 17, equal in height to the supports 10, and preferably consisting of a grooved or gutter-shaped metallic piece 18, 10 formed with an L-shaped side 19, which serves as a stop to limit the inward endwise movement of the filed sheets or periodicals.

The grooved piece 18 is secured to its panel 9 by means of nails or screws passing through 15 perforated lips 20 at its ends into the panel. Within the grooved piece 18 is located a spring 21, preferably in the form of an elastic reversed V-shaped strip of metal, having one end fastened in the grooved piece 18 and its 20 other end free to slide therein. To avoid wearing the panel the spring 21 bears against a plate 21' on the under side of the panel above. When there are no sheets or papers filed between two panels, or only sheets or 25 papers enough to form a pile as high as the grooved piece 18, the upper panel rests at its inner end on the grooved piece 18, holding the spring 21 down within the groove, and its outer end rests on the support 10 at the outer 30 end of the panel beneath. As additional sheets are added or a pile of sheets or periodicals is located between two panels, which brings the top of the pile above the grooved piece 18, the panel above is raised by the 35 pile above the grooved piece 18 and the spring 21 automatically rises with the panel, thereby in effect increasing the height of the grooved piece 18, serving as a stop, and preventing the inward endwise movement of the 40 sheets or periodicals of the pile located above the grooved piece 18, as shown in Fig. 2. In order to hold sheets from endwise movement in either direction where the sheets are so short as not to extend from support 10 to grooved piece 18, a second grooved piece 22 45 and spring 23 may be employed, as shown, having its ends engaging flanges 24 of strips 25, so as to slide thereon, the ends of the strips 25 being fastened to the panel 9 and extending 50 from the grooved piece 18 to a suitable distance from the latter toward the front of the panel. By this means the forward grooved piece 22 may be adjusted in the strips 25 toward and away from the rear grooved piece 55 18, according to the length of the particular sheets desired to be filed.

The lowest grooved piece 18 is located at the proper height to agree with the height of the supports 15, resting in their plates 16, by 60 mounting it on a cross-bar 26, secured to the base 2.

In order to permit the panels 9 to be raised freely in a horizontal position, and also to be tilted at their rear end when access between 65 the panels is desired, the following construction may be employed: Referring to Figs. 1 and 2, there are mounted on the inside of the

sides 4 and 5 a series of vertical rods 27, of metal or other suitable material, connected at their top and bottom by horizontal plates 70 28, secured to the sides 4 and 5 in any suitable manner. The corners of the panels 9 are provided with lugs 29, of any suitable form, to project and slide between the rods 27.

As shown, the lugs 29 preferably consist of 75 rods 30, bent to form a folded portion, as at 31, through which a screw 32 projects, securing them to the panel, and an inclined portion 33, with an end projecting laterally from the panel and forming a lug 29. 80

Before the upper plates 28 are placed on the rods 27 and secured in place the panels 9 are placed in position on the base 2, the lugs 29 of the lowermost panel being slid 85 down between the two rods 27 farthest from the rear of the base with the panel until it rests on the grooved piece 18 on the base 2 and its knobs 15 rest in the plates 16. The successive panels are then similarly lowered into position until each rests on the support 90 10 and grooved piece 18 of the panel beneath, the lugs 29 of such panel, which is slightly longer at its rear than the panel beneath, engaging the next pair of rods 27 toward the 95 back 3.

The rear end of each panel 9 projects slightly beyond its lugs 29, so that upon a panel being raised at its forward end and tilted its rear end bears on the rear end of 100 the panel beneath and tends to tilt the latter, thereby aiding in raising and tilting one or more panels.

It will thus be seen that by means of the foregoing construction one or more of the panels 9 may be raised horizontally and tilted 105 to file or withdraw or have access to papers, periodicals, sheets, &c.

To serve as a guide to the panels in being raised and lowered, the side 4 is provided with vertical strips 34, against which the panels 110 bear on one side.

In order to hold one or more of the panels 9 in an inclined or tilted position, a supporting-stick 35 is provided, which, when not in 115 use, lies on the base 2 at one side, and is held in place by one end inserted in a loop or sleeve 36, secured to the base 2. The ends of the supporting-stick 35 are preferably provided with knobs or cushions 37, of rubber or other suitable material, to prevent the stick from 120 slipping, and the flanges 11 on the under side of the panels 9, as well as a U-shaped plate 38, clamping and secured to the uppermost panel, are formed with a recess 39, in which 125 an end of the stick 35 is adapted to rest.

The uppermost panel 9 is provided with a lifting-ring 39'. In lieu of the rods 27 and plates 28, a modified form of construction may 130 be employed, as shown in Fig. 6, which consists of a vertical strip 40, about the height of the sides 4 and 5, and formed with a series of grooves 41 of different lengths. The strips 40 are secured by screws 42 or otherwise to the inner face of the sides 4 and 5, and the

grooves 41 increase in length from the rear to the front, the shortest groove 41 being adjacent to the back 3. The grooves 41 are of such a length that the lugs 29 of the lowest panel will rest in the bottom of the longest groove, and the lugs of each successive panel above will rest in the bottom of the succeeding grooves toward the back 3. The grooves 41 are preferably formed with rounded bottoms or lower ends 43, which permit the lugs 29 to turn easily therein when the panels 9 are tilted.

Another modification is shown in Figs. 7 and 9, in which vertical angle-strips 44 are secured to the sides 4 and 5 by screws 45 or otherwise, so as to form a single groove 46. In this instance the panels 9 are formed with lugs 47 at their rear end, preferably integral therewith, and located and adapted to turn in the grooves 46 as the panels are tilted.

In Figs. 4 and 8 is shown still another modification similar to that described in connection with Fig. 6, excepting that the strips 40 are formed with vertical grooves 48, extending from top to bottom thereof.

By means of this invention a cabinet-file is provided which is adapted to fit into any angle or corner of a room, and to which ready access may be had to file or remove sheets of music, drawings, unframed pictures or engravings, drawings, papers, and periodicals.

The papers, sheets, &c., may be arranged and sorted between the different panels, and one or more panels easily lifted and held in inclined position while access is had to particular sheets or papers.

The papers, sheets, or periodicals lying between the panels will be pressed compactly by the weight of the panels and will not get disarranged.

While I have described a specific construction of parts, I do not desire to limit myself thereto, as the parts may be varied without departing from the essential features of the invention.

The bearing-ribs on the side of the casing, herein shown and described, are not claimed in this application, the same being claimed in the application filed July 20, 1889, Serial No. 318,117.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A cabinet-file consisting of a casing and a number of rigid horizontal panels loosely mounted upon one another in the casing, with lugs at their rear ends pivotally connecting the panels with the casing and vertically movable therein, substantially as shown and described.

2. A cabinet-file consisting of a casing formed with a number of vertical guides at its rear end and a series of rigid horizontal panels loosely mounted upon one another in the casing, with lugs at their rear ends engaging the series of vertical guides, vertically movable therein and pivotally connect-

ing the panels therewith, substantially as shown and described.

3. In a cabinet-file, a casing consisting of a bottom and three sides, one of which extends partly the length of the casing, the sides being detachable and reversible to the opposite end of the bottom, substantially as shown and described.

4. In a cabinet-file, a column of horizontal rigid panels loosely mounted upon one another in a casing, of gradually-decreasing length from top to bottom of the column and having a vertically-sliding, pivoted, or hinged connection at one end with the casing, substantially as shown and described.

5. In a cabinet-file, a number of horizontal rigid panels loosely mounted upon one another in a casing, with vertical spacing-stops at their front and rear ends, and at one end a vertically-sliding, pivotal, or hinged connection with the casing, substantially as shown and described.

6. In a cabinet-file, a number of horizontal rigid panels loosely mounted upon one another, and having a vertical spacing-stop at their front end and a vertical spacing-stop at their rear end, with an automatic spacing-extension, substantially as shown and described.

7. In a cabinet-file, a number of horizontal rigid panels loosely mounted upon one another and having vertical spacing-extensions, one of the stops being adjustable toward the other, substantially as shown and described.

8. In a cabinet-file, a number of horizontal rigid panels loosely mounted upon one another in a casing and having a vertically-sliding, pivotal, or hinged connection at one end therewith, in combination with a detachable support for holding two or more panels in tilted or inclined position, substantially as shown and described.

9. A cabinet-file consisting of a casing open at its top, front, and one side, a number of horizontal rigid panels loosely mounted upon one another, having at their inner end a vertically-sliding, pivotal, or hinged connection with the casing, and at their front and adjacent to their rear ends vertical spacing-stops, substantially as shown and described.

10. A cabinet-file consisting of a casing, a number of horizontal rigid panels loosely mounted in the casing, and having a vertically-sliding, pivotal, or hinged connection at one end with the casing, vertical spacing-stops at their front ends, vertical spacing-stops with vertical automatic extensions adjacent to their rear ends, and lifting-handles at their forward ends, substantially as shown and described.

11. A rigid panel for a cabinet-file, constructed with the support 10 at its forward end, formed with the vertical L-shaped portion 12, the plates 11, clamping one end of the panel, the lower plate 11 having a recess 39, the outwardly-projecting handle 13, and the oppositely-bent flanges 14, forming grooves

to receive a removable title-plate, substantially as shown and described.

12. A rigid panel 9 for a cabinet-file, constructed with a vertical support at its forward end, and a spacing-stop adjacent to its rear end of equal height with the vertical support, and consisting of a grooved plate 17, secured to panel 9, and having a reversed V-shaped spring with a loose end mounted therein, substantially as shown and described.

13. A cabinet-file consisting of a casing formed in detachable parts, and having vertical guide-rods on the sides of the casing at its inner end, a number of horizontal rigid panels loosely mounted on one another in the casing, and having lugs at their inner ends

engaging the vertical rods and free to turn and vertically slide between them, vertical stops at the forward end of the panels, with lifting-handles, and recessed plates on the under side of the panels, spacing-stops with automatic vertical spring-extensions adjacent to the rear end of the panels, and a detachable supporting-stick with its ends adapted to engage the recessed plates and hold in inclined position one or more panels, substantially as shown and described.

JOHN MÜHLHAÜSER.

Witnesses:

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EDGAR TATE.