

No. 871,769.

PATENTED NOV. 26, 1907.

A. A. ANDERSON.
VENEER CLAMP.

APPLICATION FILED JULY 9, 1906.

3 SHEETS—SHEET 1.

Fig. 1.

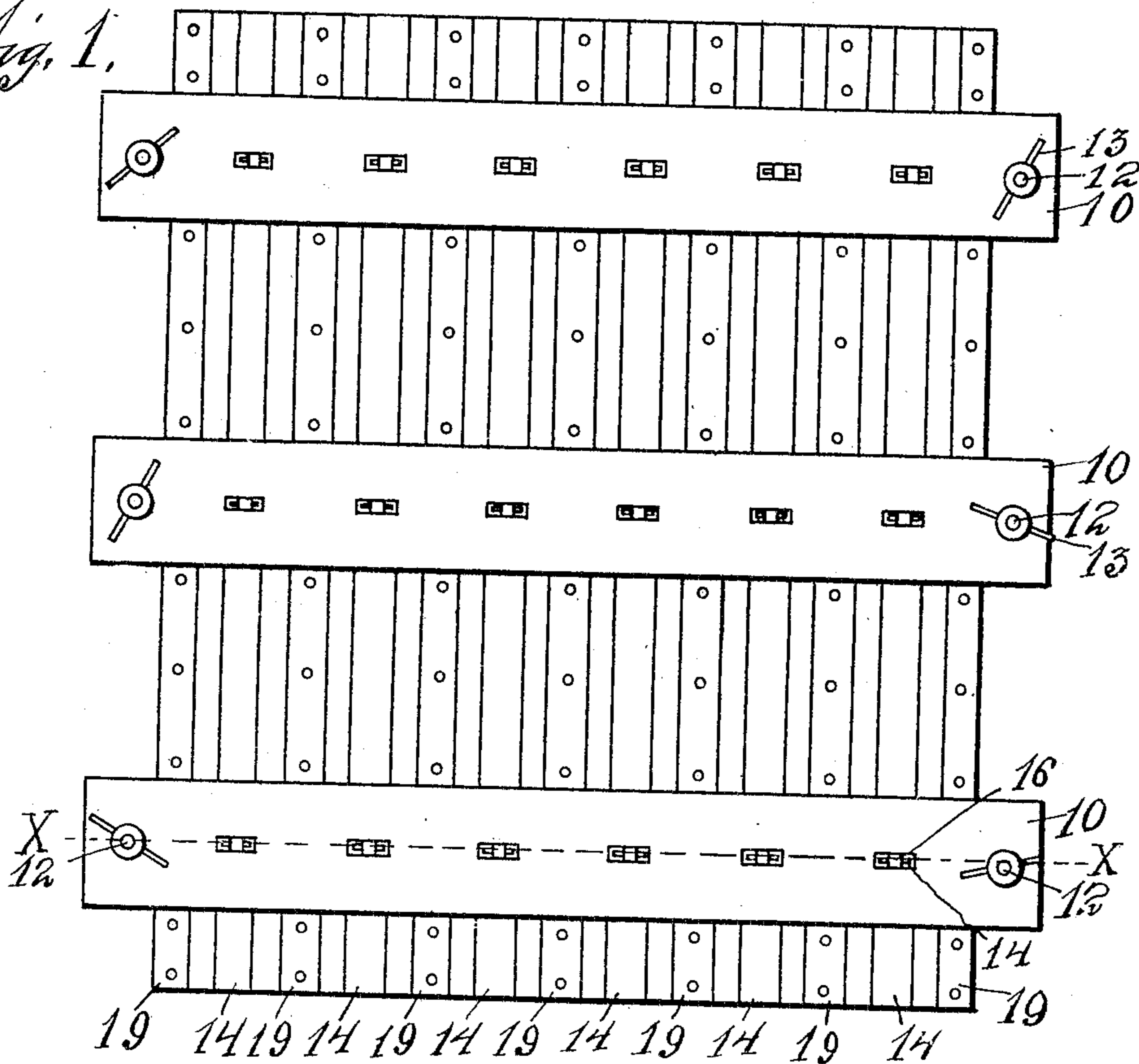


Fig. 2.

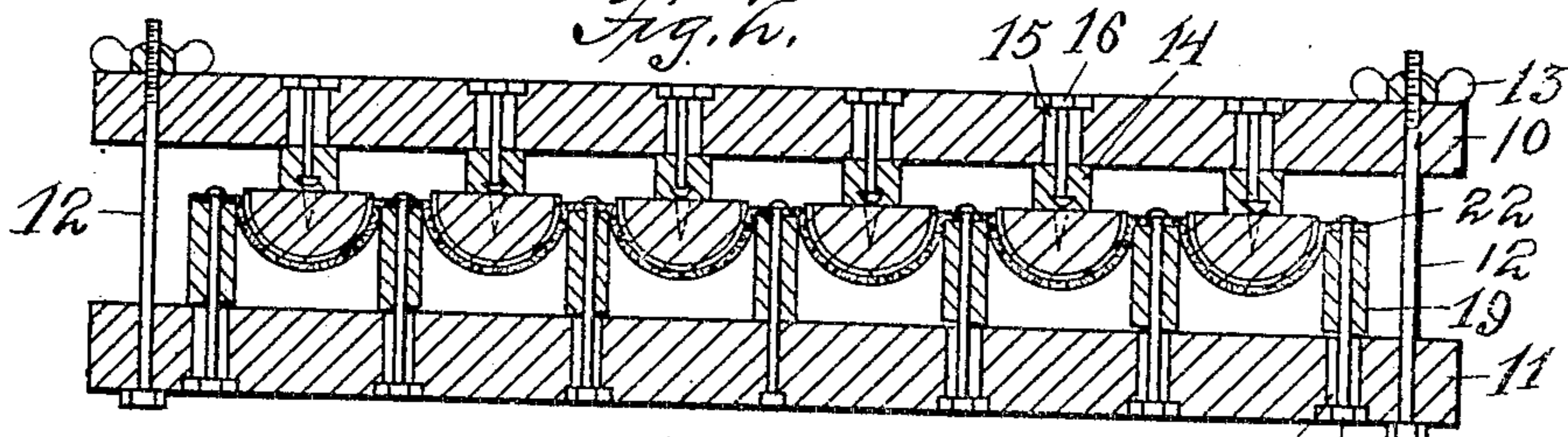
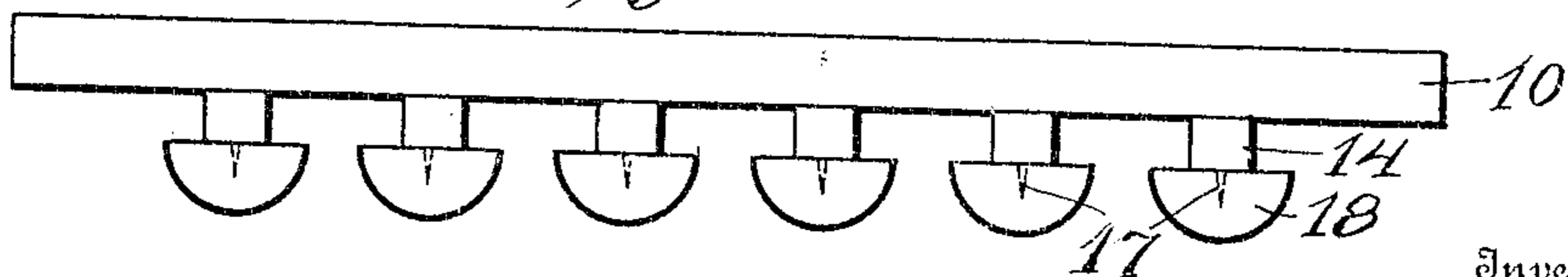


Fig. 3.



Witnesses

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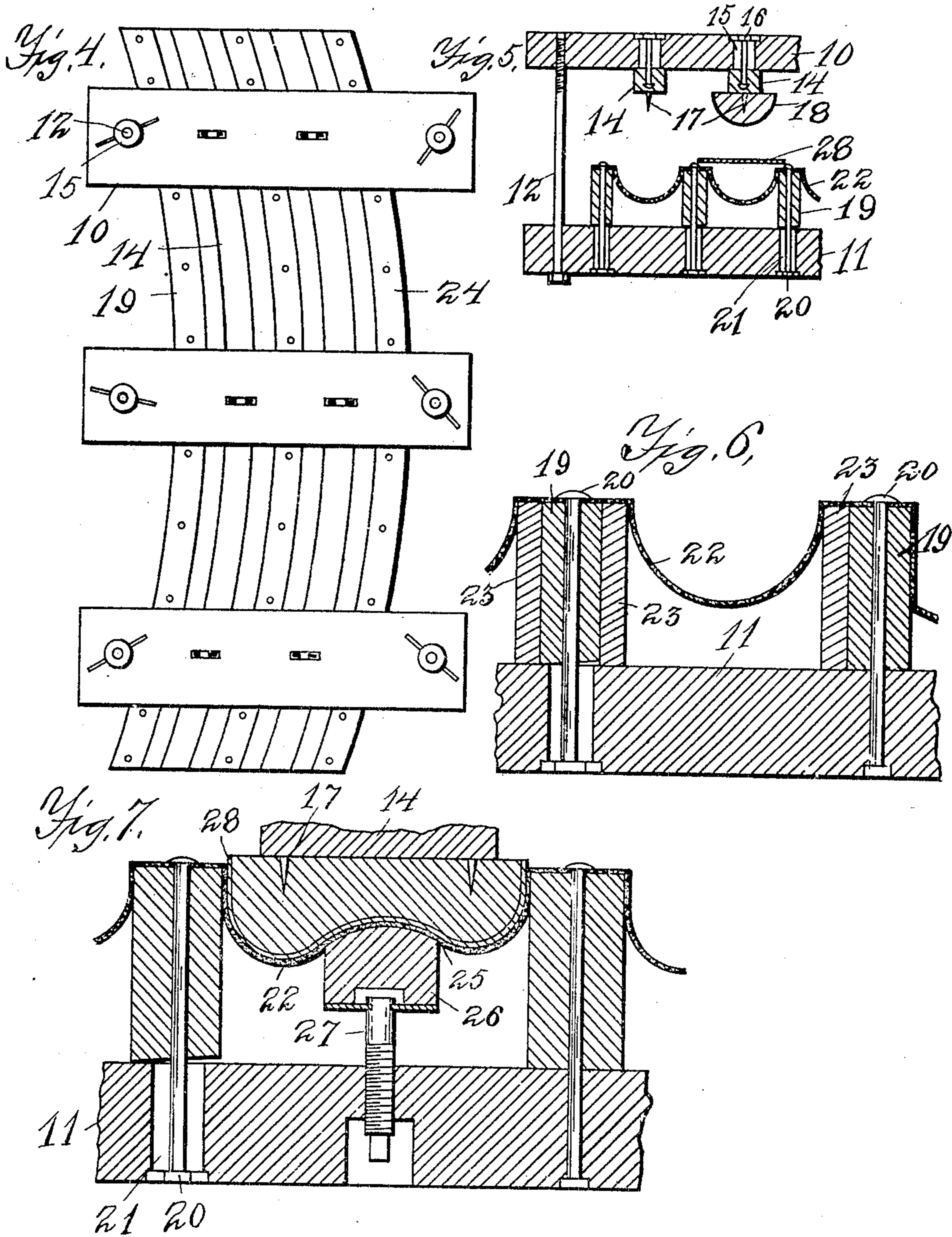
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3 SHEETS—SHEET 2.



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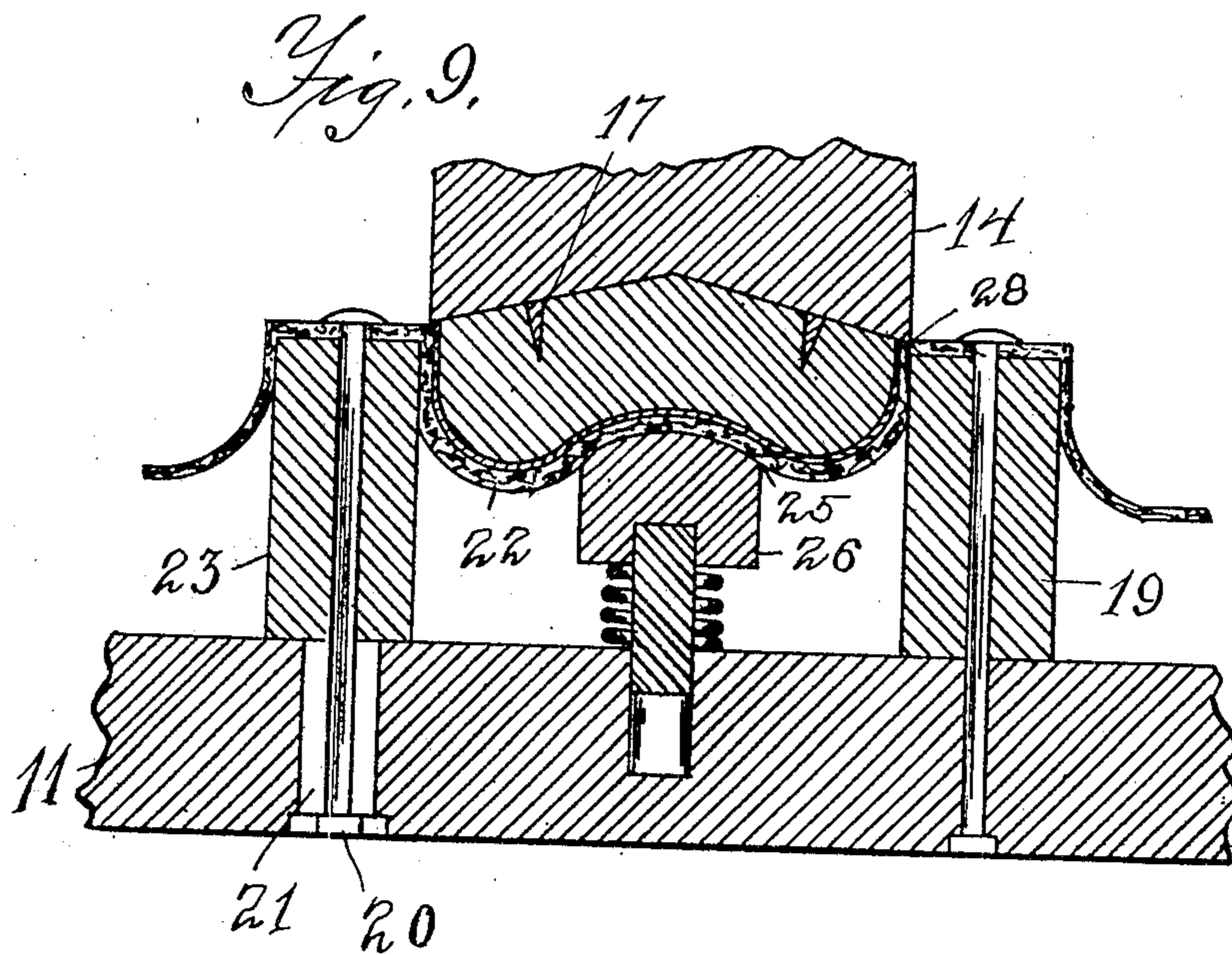
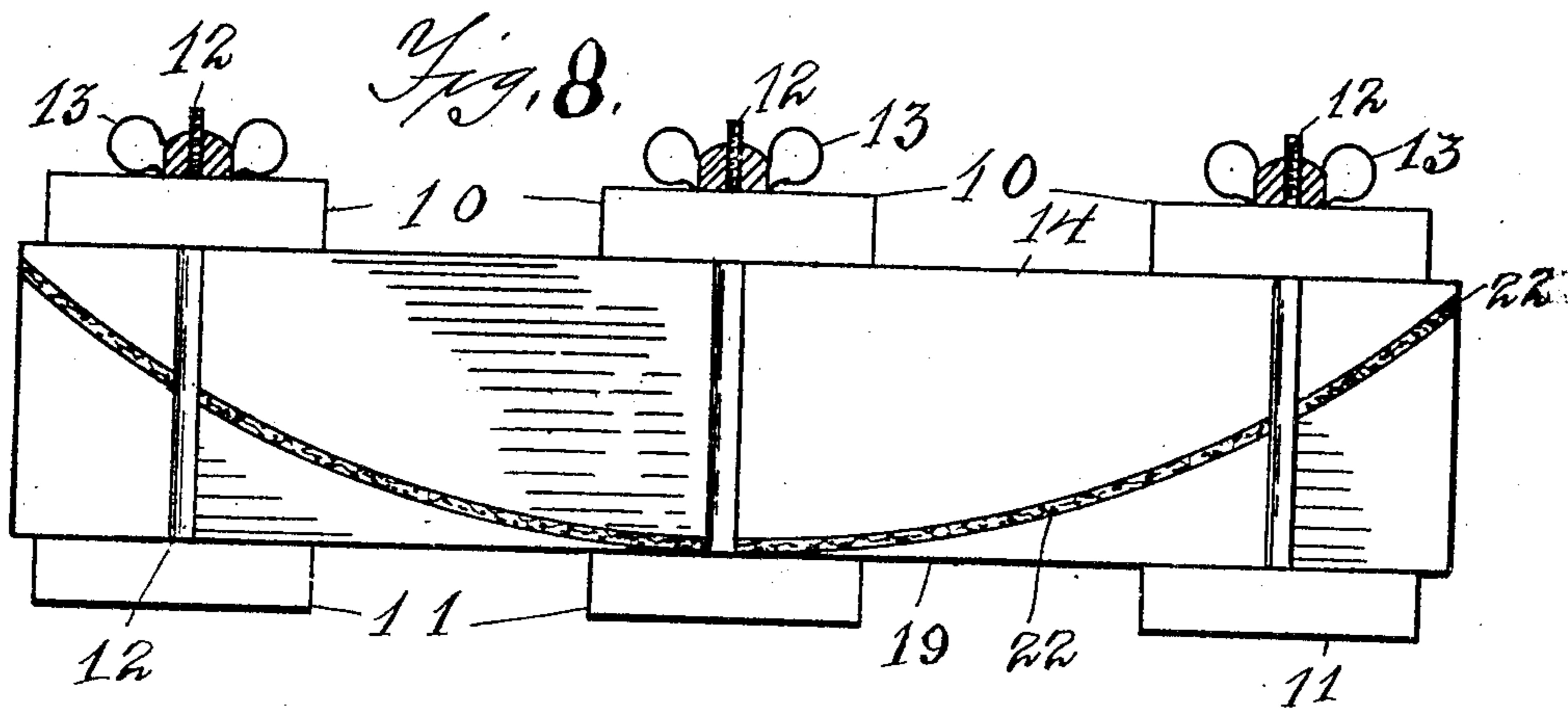
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3 SHEETS--SHEET 3.



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UNITED STATES PATENT OFFICE.

ALFRED A. ANDERSON, OF JAMESTOWN, NEW YORK.

VENEER-CLAMP.

No. 871,769.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed July 9, 1906. Serial No. 325,217.

To all whom it may concern:

Be it known that I, ALFRED A. ANDERSON, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Veneering-Clamp, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description

The invention relates to the art of veneering boards or moldings and the device here shown is designed more particularly for veneering round or unequal surfaces; and the objects of the improvement are, first, to provide a clamp of flexible, fibrous, non-elastic material; and means to cause it to conform to unequal surfaces, pressing the veneer firmly against the glue-coated surface at all parts; and second, to arrange said clamp in a cooperating series so that a number of pieces of molding may be veneered simultaneously therein.

In the drawings, Figure 1 is a plan view of a loaded veneering clamp, in series. Fig. 2 is a sectional view at line X X in Fig. 1. Fig. 3 is an end view of the upper half of the clamp with strips of semi-circular molding attached ready for coating with glue. Fig. 4 is a plan view of a clamp having edgewise bowed strips. Fig. 5 is a partial sectional view of the clamp, showing the upper half raised and a veneer strip in place to receive the wood to be veneered. Fig. 6 is a partial cross-sectional view showing inserts to reduce the size of the clamping space. Fig. 7 is a partial cross-sectional view showing a screw pressed curve-topped strip to press the flexible clamping material veneer into an ogee or return curve molding. Fig. 8 is a side elevation of a clamp having another form of bowed strips from those shown in Fig. 4. Fig. 9 is a partial cross-sectional view showing a modification of the adjusting means for the curve-topped strip, shown in Fig. 7 to press the veneer into an ogee molding.

Similar numerals refer to corresponding parts in the several views.

The numeral 10 indicates the heavy upper cross bars or clamping pieces, which are made of sufficient size to hold the parts stiffly in place. Similar cross pieces 11 are provided at the lower side, and bolts 12 are provided in the ends of the lower cross pieces 11 and project through the ends of the upper

cross pieces 10 with suitable thumb nuts 13 to compress the parts. A series of lengthwise bars 14 are attached to pieces 10 by bolts 16 in slots 15. Lengthwise bars 14 have the points 17 extending therefrom on their lower side for attaching the wooden forms 18, to be veneered. It is apparent that the wooden forms 18 may be attached to lengthwise bars 14 by the points 17, as shown in Fig. 3, and that when so attached the series of strips of molding 18 are in convenient form for coating with glue.

The lower half of the clamp has the lengthwise bars 19 attached to cross pieces 11 by bolts 20 in slots 21. The central bar 19 of the series is bolted firmly in place without the slots 21, and the under sides of the other bars 19 each side of said central bar are given a slightly beveled opening toward said central bar so that when pressure is applied, the lengthwise bars 19 on each side of said central bar will be drawn toward said central bar, the slots 21 for bolts 20 and 15 for bolts 16 allowing of such movement toward the central bar, thereby adjusting automatically so that all parts of the rounded surfaces receive equal pressure.

The upper edges of bars 19 are connected by a sheet of heavy cloth 22, preferably heavy canvas, which material is found after being placed under heavy pressure to have sufficient strength and to be practically non-elastic, not stretching to any extent under pressure, but holding the veneer firmly to place on the glued surfaces. The canvas is attached to the upper edges of bars 19 and allowed to loop downward slightly between the bars 19 according to the rounded surface to be glued. When it is desired to diminish the space between the bars 19 for small molding, strips 23 are inserted at each side of the space between the bars 19 beneath the canvas 22. Inserts 23 may be of different thicknesses according to the amount which it is desired to diminish the space between the bars 19; they should be of equal thickness in order to equalize the space.

Lengthwise bars 14, and 19 with the sheet of canvas may be made in the curved or bowed forms, as shown in Figs. 4, and 8, so that rounded molding in the sidewise curved or bowed form may be veneered.

In case of an upward or return curve in the molding an additional lengthwise bar 26 with a round upper surface is provided

beneath the canvas 22 with adjusting screws 27 mounted in lower pieces 11, said screws having squared lower ends so that they can be adjusted by means of a suitable key.

5 In use, the strips of wood to be veneered are fastened on the lengthwise bars 14, as shown in Figs. 3 and 5. The strips of veneer 28 are placed in position on the bars 19 beneath the molding 18, as shown in Fig. 5.
10 Molding 18 having been thoroughly coated with glue, the parts are pressed together by means of screws 12. A number of such loaded clamps may then be placed in a large gluing press and any desired degree of additional pressure put upon them.

It is apparent that for veneering double curved blocks, as shown in Fig. 7, the canvas 22 will press the veneer on to the outer curves, and that the pressure of the curve-topped strip 26 may be adjusted to the pressure of the canvas so as to press the veneer into the central upward curve with an equalized pressure. Coil springs could be used between strip 26 and pieces 11 in place of
25 screws 27, and serve a good purpose as shown in Fig. 9. Such springs are found, however, to soon lose their elasticity, and hence the screws 27 are preferred.

It is obvious that cross pieces 10 and 11
30 on the upper and under sides form supports and that the clamp can be used either side up, though it is usually preferable to use the clamp as shown in the drawing. It is evident also that different forms might be given to bar 26 in order to fit different styles of molding without departing from the invention. It is found, however, that a simple oval strip attains the purpose and gives sufficient pressure to cause the veneer to
40 adhere. The screw 27 may be mounted in cross bar 11 at different angles in order to press the strip 26 into the different styles of molding, though this is rarely necessary.

I claim as new:—

45 1. A veneer clamp comprising a bar, holding means on said bar for the wood to be veneered, a bar each side of said first bar, flexible material, extending between said side bars, and means to compress said bars
50 and flexible material together to clamp the veneer on the wood.

2. A veneer clamp comprising a series of bars, attaching means on said bars for the wood to be veneered, a second series of bars
55 alternating said first series, flexible material attached to and extending between said second series, and means for compressing said first series and said flexible material to form a multiple clamp.

60 3. A veneer clamp comprising a series of bars movable sidewise, attaching means on said bars for the wood to be veneered, a second series of bars movable sidewise and alternating said first series, flexible material
65 attached to and extending between said sec-

ond series, and means for compressing the two series together to form a compound multiple clamp.

4. A veneer clamp comprising upper and under supports and means of compression
70 for said supports, a bar on said upper supports and means for attaching thereto the wood to be veneered, a bar on said under supports each side of said upper bar, and cloth attached to and extending between said under
75 bars to compress the veneer on to the wood to be veneered.

5. A veneer clamp comprising upper and under supports and means for compressing said supports together, a bar on one of said
80 supports to receive the wood to be veneered, a bar on the other support each side of the said first bar, flexible fibrous material attached to and extending between said bars on the second support, and strips beneath
85 said flexible material to reduce the space between said bars, substantially as and for the purpose specified.

6. A veneer clamp comprising a series of cross-wise upper and under support pieces,
90 screw bolts to compress said pieces together, a series of lengthwise bars attached to said upper pieces, and means for attaching thereto the wood to be veneered, a series of lengthwise bars on said under supports placed
95 alternately each side of the said upper bars, and a sheet of flexible fibrous material attached to said under bars, substantially as and for the purpose specified.

7. A veneer clamp comprising upper and
100 under supports and means for compressing said supports together, a series of bars attached to the under side of said upper supports, a second series of bars on said under supports each side of said first bars, said upper and under bars adjustably attached to
105 their supports except the middle under bar, said middle under bar having a fixed attachment to its support, and a sheet of flexible fibrous material attached to the upper edges
110 of said under bars, substantially as and for the purpose specified.

8. A veneer clamp, comprising upper and under supports and means for compressing said supports together, a first series of bars
115 adjustably attached to the under side of said upper supports, to receive the moldings to be veneered, a second series of bars on said under supports alternating with said first series, the middle bar of said second series having a
120 fixed attachment on said under support and the remaining bars of said second series adjustably attached thereto and having a beveled opening on their under sides toward said fixed central bar, and a sheet of canvas at-
125 tached to the upper edges of said second series and looped between the same.

9. A veneer clamp comprising upper and under supports and means for compressing said supports together, a series of curved or
130

bowed bars on one of said supports and a series of similar curved or bowed bars on the other support placed alternately each side of said first bars, and a sheet of canvas attached to the upper edges of said second bars, substantially as and for the purpose specified.

10. A veneer clamp comprising upper and under supports and means for compressing said supports together, a bar on the upper support and holding means on said bar for the wood to be veneered, a bar each side of said first bar on the under supports, flexible material extending between said under bars, a bar between said under bars under said flexible material, and adjusting means for said bar under the flexible material to press the same against the wood to be veneered.

11. A veneer clamp comprising upper and under supports and means for compressing said supports together, a bar on one of said supports and points on said bar for attaching the wood to be veneered on the other support a bar each side of said first bar, cloth attached to the top of said second bars, a curve-topped bar between said second bars beneath said

cloth, and a screw in said under support to compress said curve-topped bar against the wood, substantially as and for the purpose specified.

12. A veneer clamp comprising the upper cross pieces 10 and the lower cross pieces 11, bolts 12 in said pieces, lengthwise bars 14 attached to pieces 10 by bolts 16 in slots 15, points 17 in bars 14 for attaching the molding, lengthwise bars 19 attached to pieces 11 by bolts 20, the central bar 19 bolted fast, said bars 19 each side of said central bar attached by bolts 20 in slots 21 and having a beveled under side opening toward said central bar, and a sheet of canvas 22 attached to and loosely looped between bars 19, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED A. ANDERSON.

Witnesses:

A. W. KETTLE,

I. A. ELLSWORTH.