

No. 750,396.

PATENTED JAN. 26, 1904.

H. ROMÜNDER.
CONVERTIBLE VEHICLE.

NO MODEL.

APPLICATION FILED FEB. 24, 1903.

2 SHEETS—SHEET 1.

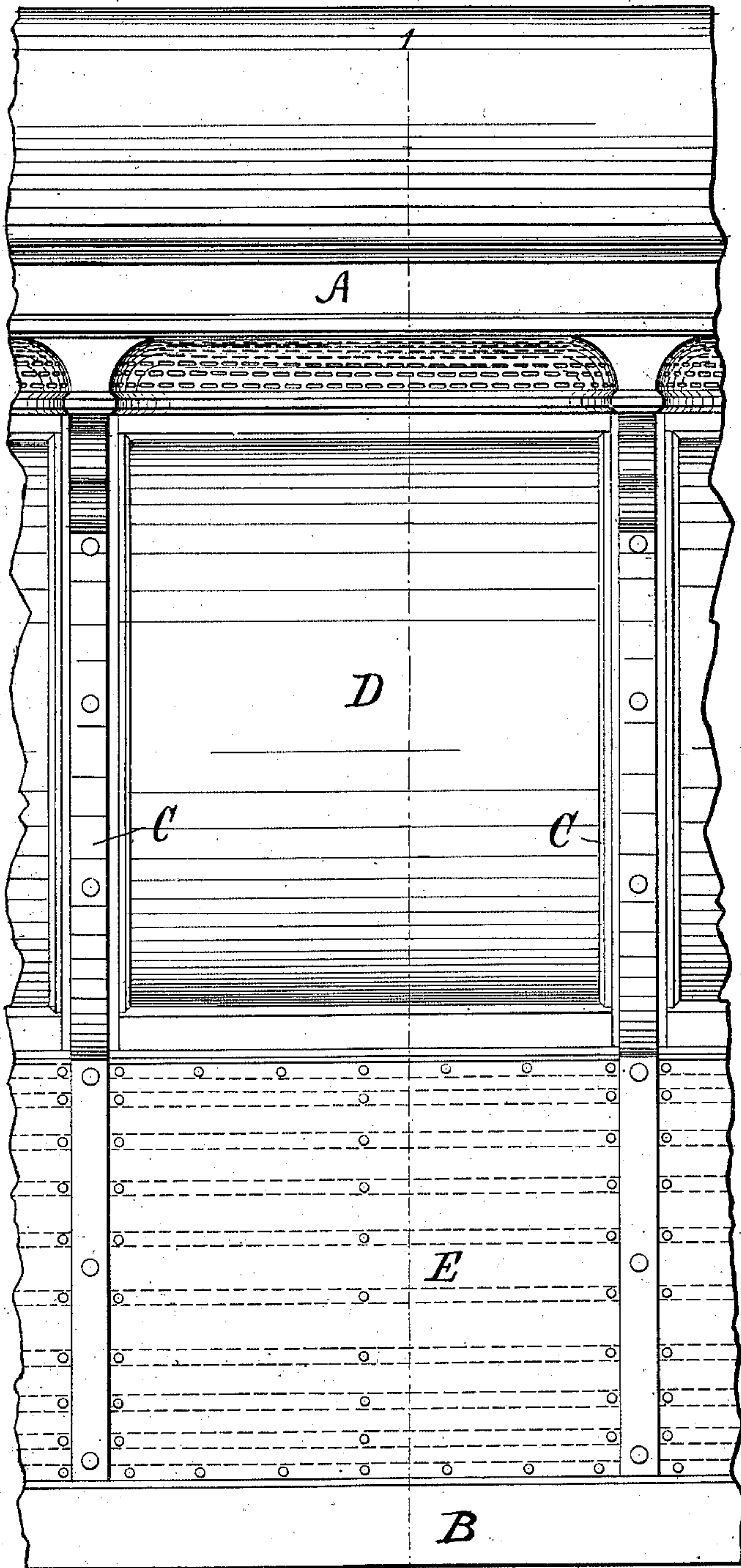


Fig. 1.

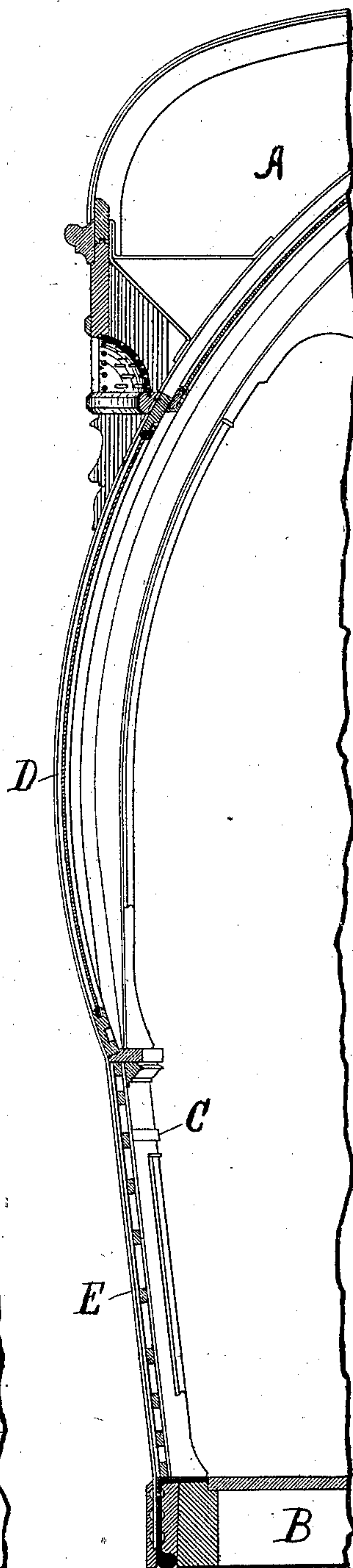


Fig. 2.

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Joseph C. Cunniff

Inventor:
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by his attorney
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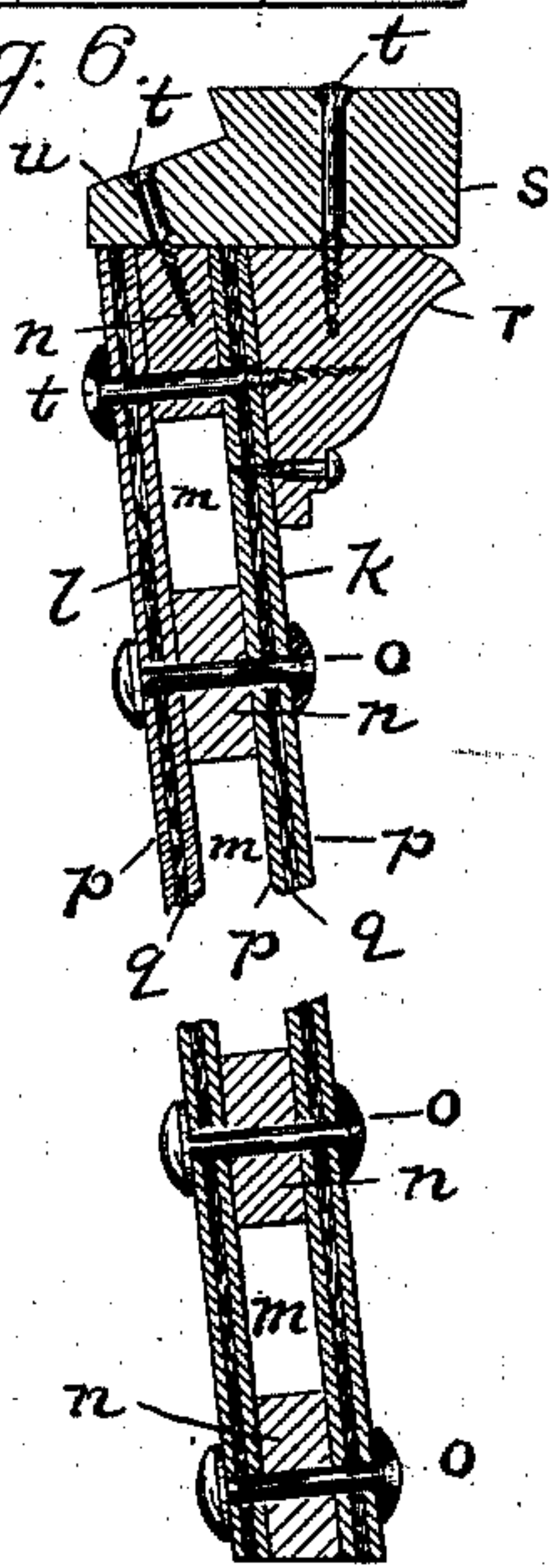
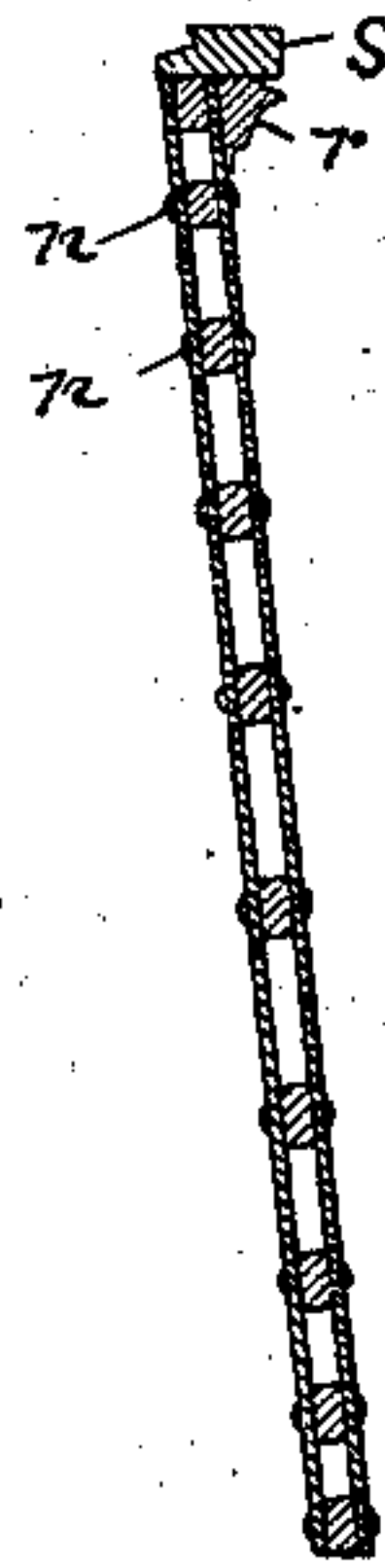
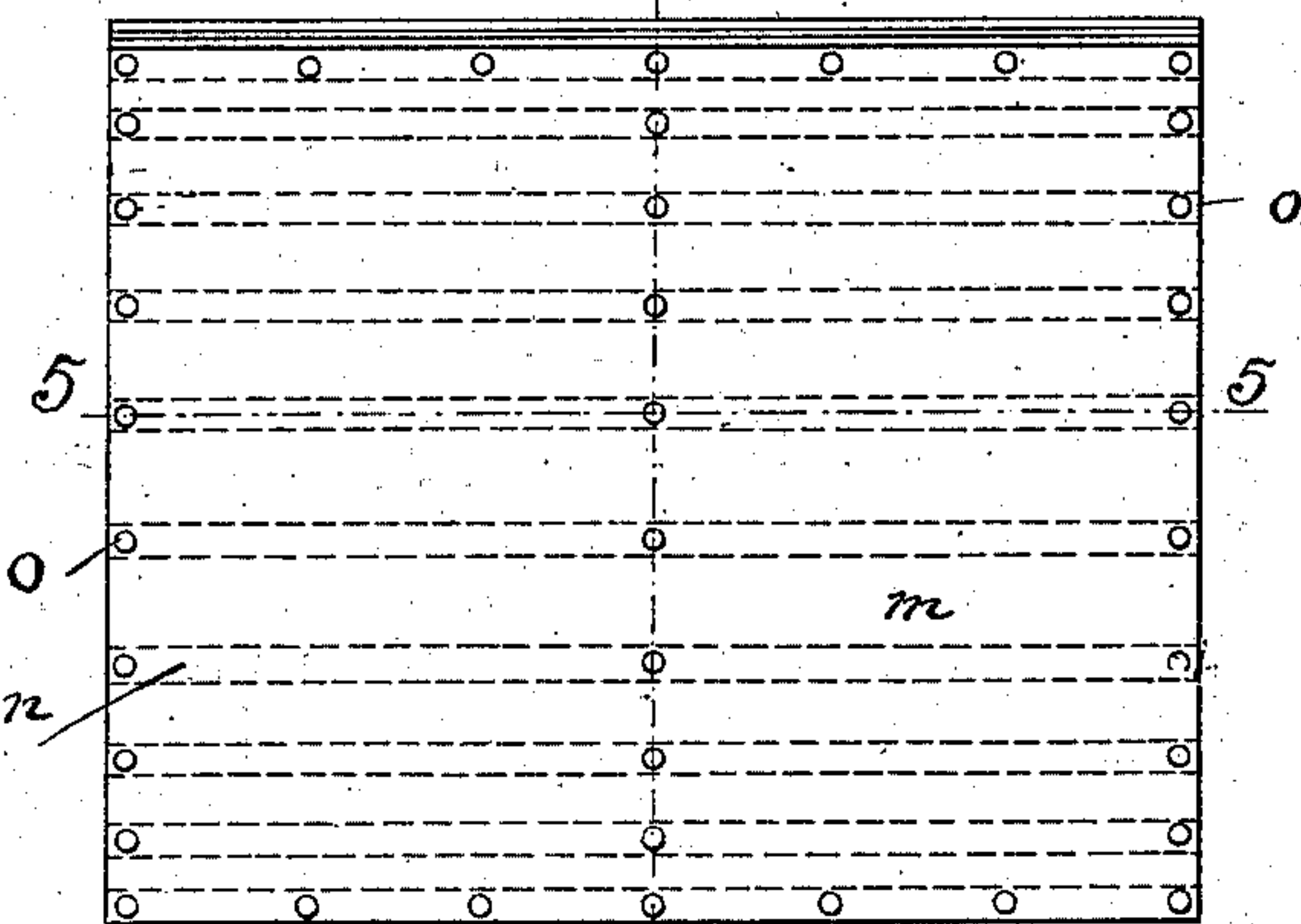
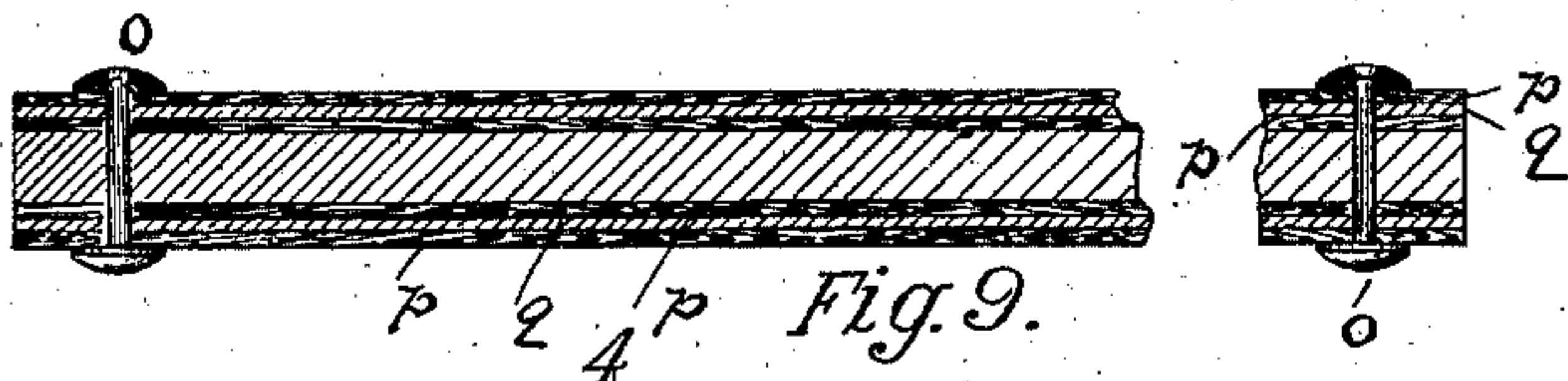
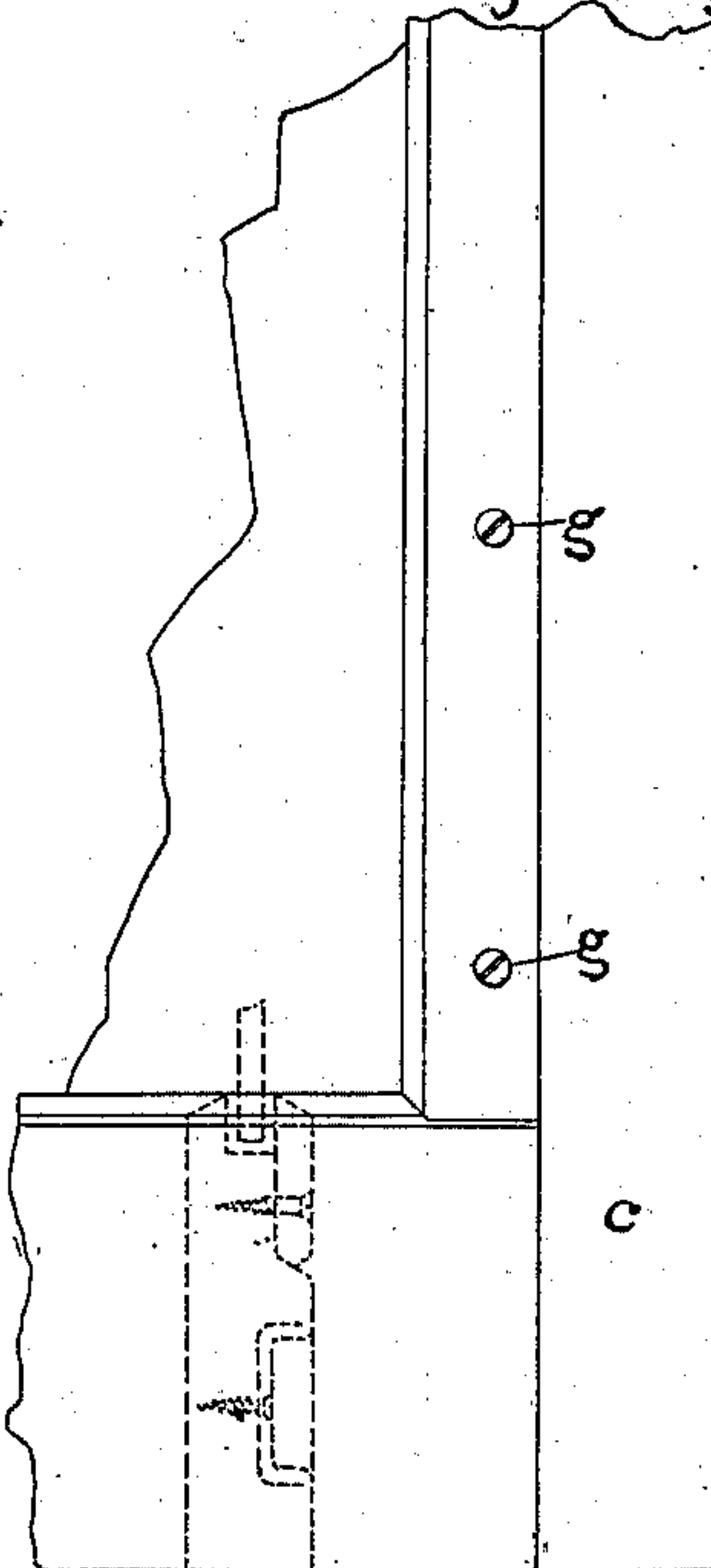
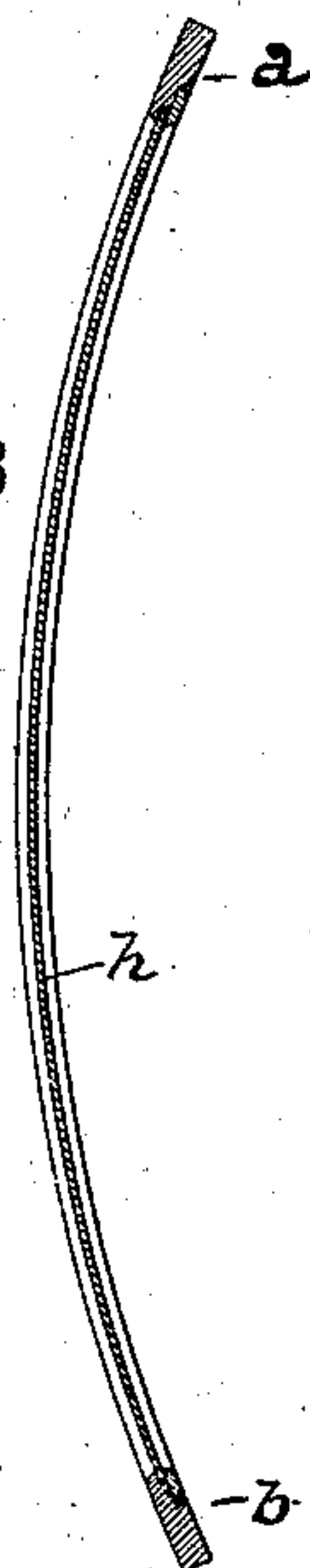
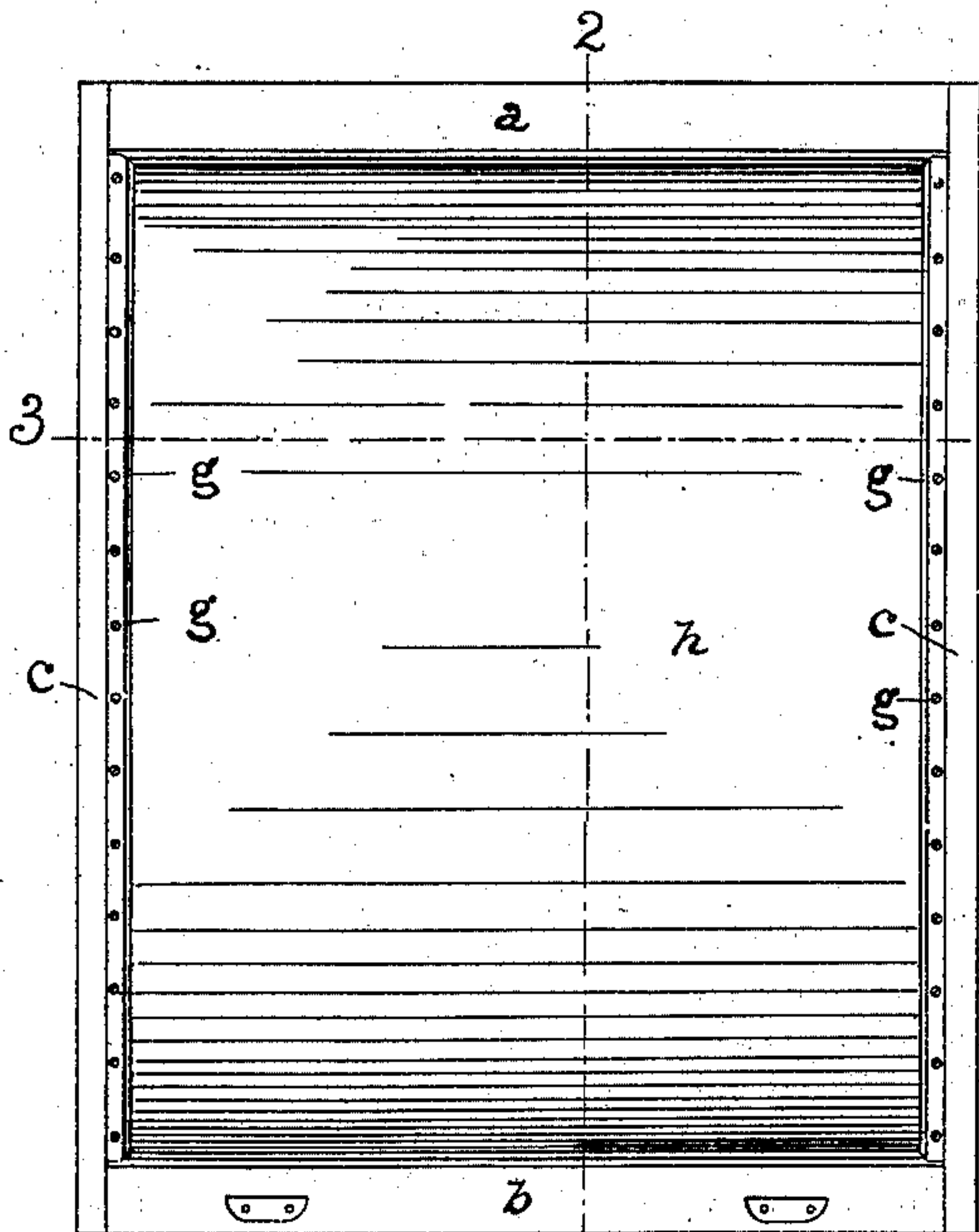
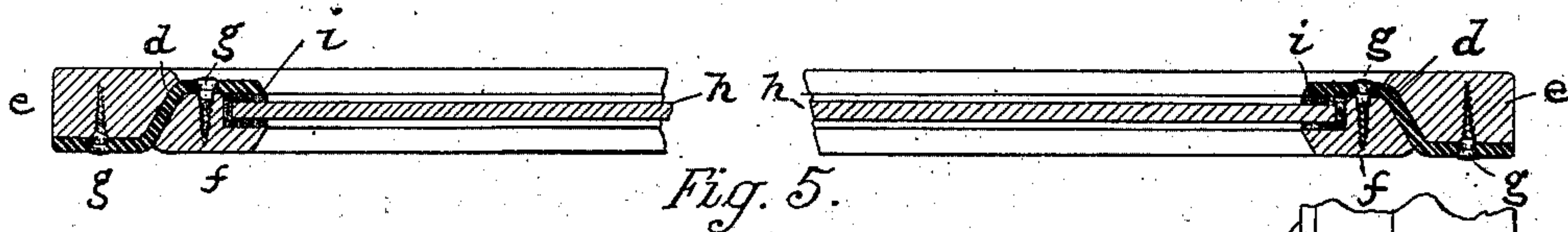
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2 SHEETS—SHEET 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

HERMANN ROMÜNDER, OF BLOOMSBURY, NEW JERSEY.

CONVERTIBLE VEHICLE.

SPECIFICATION forming part of Letters Patent No. 750,396, dated January 26, 1904.

Application filed February 24, 1903. Serial No. 144,593. (No model.)

To all whom it may concern:

Be it known that I, HERMANN ROMÜNDER, a citizen of the United States, and a resident of Bloomsbury, in the county of Hunterdon, State of New Jersey, have invented certain new and useful Improvements in Convertible Vehicles, of which the following is a specification.

My invention relates to that class of vehicles commonly known as "convertible," and is designed more particularly to provide such vehicles with removable side sections composed of panels and window-sashes, the sash being curved and rigid, while the panel is flexible and weather-tight.

The objects of my invention are to provide a weatherproof flexible panel of light weight, great strength and durability, simple of construction, and at low manufacturing cost, to provide an air-space between the inner and outer walls of the panel whereby the vehicle is made warmer in cold weather and rain and drafts are kept out, also to provide an absolutely rigid curved window-sash that will not spring both strong and durable and of pleasing effect and so arranged as to be able to get the window-pane almost or entirely into the center of the window-sash.

One form of my invention is shown in the accompanying drawings, in which—

Figure 1 shows the complete movable side section consisting of a lower flexible panel and upper curved window. Fig. 2 shows a vertical section on line 1 1 of Fig. 1. Fig. 3 shows the window and window-sash. Fig. 4 shows a vertical section on line 2 2 of Fig. 3. Fig. 5 shows a horizontal section on line 3 3 of Fig. 3. Fig. 6 shows a corner of window-sash. Fig. 7 shows a flexible panel. Fig. 8 shows a vertical section on line 4 4 of Fig. 7. Fig. 9 shows a horizontal section on line 5 5 of Fig. 7. Fig. 10 shows a sectional view of the part of flexible panel with window-sill at its upper end, showing the way the wood-veneer plates are riveted together with slats between them.

Same letters indicate similar parts in the different figures.

A is the roof of a car selected for purposes of illustration.

B is the floor-frame.

C C are the side posts, which are suitably grooved longitudinally to receive the sliding side sections. These side sections consist of the window-sash D and the panel E.

The window-sash D, which is shown in detail in Figs. 3, 4, 5, and 6, is so constructed as to be absolutely strong and durable and curved to conform to the groove in the side post in which it slides when raised or lowered. This sash is constructed with a top rail *a* and bottom rail *b*, which are connected by the upright stiles *c c*. These stiles are constructed with a wood facing mounted upon what I call a "Z-shaped" piece, which is preferably of metal or other strong and malleable material *d* so set that one part is visible on the outside of the sash and the other part on the inside, the wooden facings *e f* being firmly held thereto by the screws *g g*. As shown in Fig. 4, these upright stiles are curved, and this curvature, as before stated, corresponds with that of the side-post grooves in which the sash is raised and lowered. The glass pane *h* is embedded in rubber *i* or other yielding material and is to be set nearly or quite in the center of the window-sash.

The flexible panel, which is shown in detail in Figs. 7, 8, 9, and 10, is so constructed as to combine great strength and durability and lightness of weight with the requisite flexibility of a panel which has to accommodate itself to the variations in the curvature of the side-post grooves, while at the same time being weatherproof. This construction is obtained by making the panel of two plates *k l*, (see Fig. 10,) separated by an air-space *m*. Between the plates at suitable intervals are horizontal slats or laths *n*, which may be of metal or wood, as desired, through which pass the bolts *o*, by which the two plates are held together. These plates consist of two or more layers of wood veneers *p p q q*, the alternate layers being laid with the grain reversed and the different layers secured together by suitable waterproof gluing composition. To the

top of the panel is secured a sill composed of two portions *r s*, held together and to the panel by *t t t* and provided with a recess *u*, upon which the lower end of the window-sash rests when the window is closed.

It is to be understood that one window-sash and one flexible panel constitute one of the movable side sections for convertible vehicles, being adapted to be raised and lowered in the grooves of the side posts, which separate the successive side sections. The panel and sash substantially fill the space between the roof and floor of the vehicle when closed and retreat into the roof when open.

I claim—

1. A convertible vehicle provided with movable side sections, composed of a rigid curved window-sash, substantially as described, and a flexible panel, which consists of a number of wood-veneer plates connected together by a number of horizontal slats so arranged as to leave air-spaces between said slats on the inside of said plates.

2. A flexible panel for movable side sections in convertible vehicles, consisting of wood-veneer plates, slats or laths between the veneer plates and connected preferably by means of rivets, producing an air-space between the two plates forming the inner and outer walls of the flexible panel.

3. A flexible panel for movable side sections in convertible passenger-cars, consisting of two or more water and weather proof wood-veneer plates and a number of horizontal slats or laths, suitably connected and a window-sill secured thereto.

4. A flexible panel movable in grooves provided in the side posts of convertible vehicles and composed of a number of wood-veneer plates each of which consists of two or more layers of wood veneer, the alternate layers being laid with the grain reversed, and all the layers secured together by a waterproof gluing composition; and a window-sill, composed of two portions, suitably held together and to the panel, and provided with a recess upon which the bottom rail of the window-sash rests when the window is closed.

5. A flexible panel for movable side sections in convertible passenger-cars consisting of an outer and an inner water and weather proof wood-veneer plate, separate by one or more air-spaces formed by a number of horizontal slats or laths, holding these plates together by means of bolts or otherwise.

6. A convertible vehicle provided with a

number of side posts, suitably grooved longitudinally to receive sliding side sections, each sliding side section being composed of a flexible panel consisting of a window-sill and an outer and an inner wall formed of water and weather proof wood-veneer plates made of two or more layers of wood veneer, the grain of alternate layers being reversed, united by a waterproof gluing composition under heat and pressure; said inner and outer walls being suitably connected so as to leave one or more air-spaces between the wood-veneer plates; and a large curved window provided with a rigid curved window-sash, the upright stiles of which are curved, this curvature corresponding with that of the side-post groove in which the sash is raised or lowered.

7. A convertible car provided with a number of movable side sections, adapted to be raised and lowered in grooves of the side posts separating the successive side sections, each side section consisting of a window curved to conform to the groove in the side post in which it slides when raised or lowered and a flexible panel consisting of a number of water and weather proof wood-veneer plates, a number of horizontal slats or laths preferably of metal or wood or other material, suitably connected, whereby one or more air-spaces are formed between the wood-veneer plates, and a window-sill secured to the top of the panel, the said panel being adapted to slide in the side-post grooves and owing to its flexibility accommodating itself to the variations of the side-post-panel grooves.

8. In a convertible car, a number of side sections, movable in grooves of the side posts separating the successive side sections and substantially filling the space between the roof and floor of the vehicle on both sides, when closed and retreating into the roof, when open; each side section being composed of a curved window in a rigid curved window-sash, substantially as described, and a flexible panel consisting of a number of water and weather proof wood-veneer plates connected by a number of horizontal slats or laths so arranged as to leave air-spaces between said wood-veneer plates; and a window-sill securely connected to the upper part of said plates, the window when closed, resting against the said window-sill.

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Witnesses:

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