

No. 753,315.

PATENTED MAR. 1, 1904.

H. ROMÜNDER.
FRAME OR SASH FOR WINDOWS.

APPLICATION FILED AUG. 5, 1903.

NO MODEL.

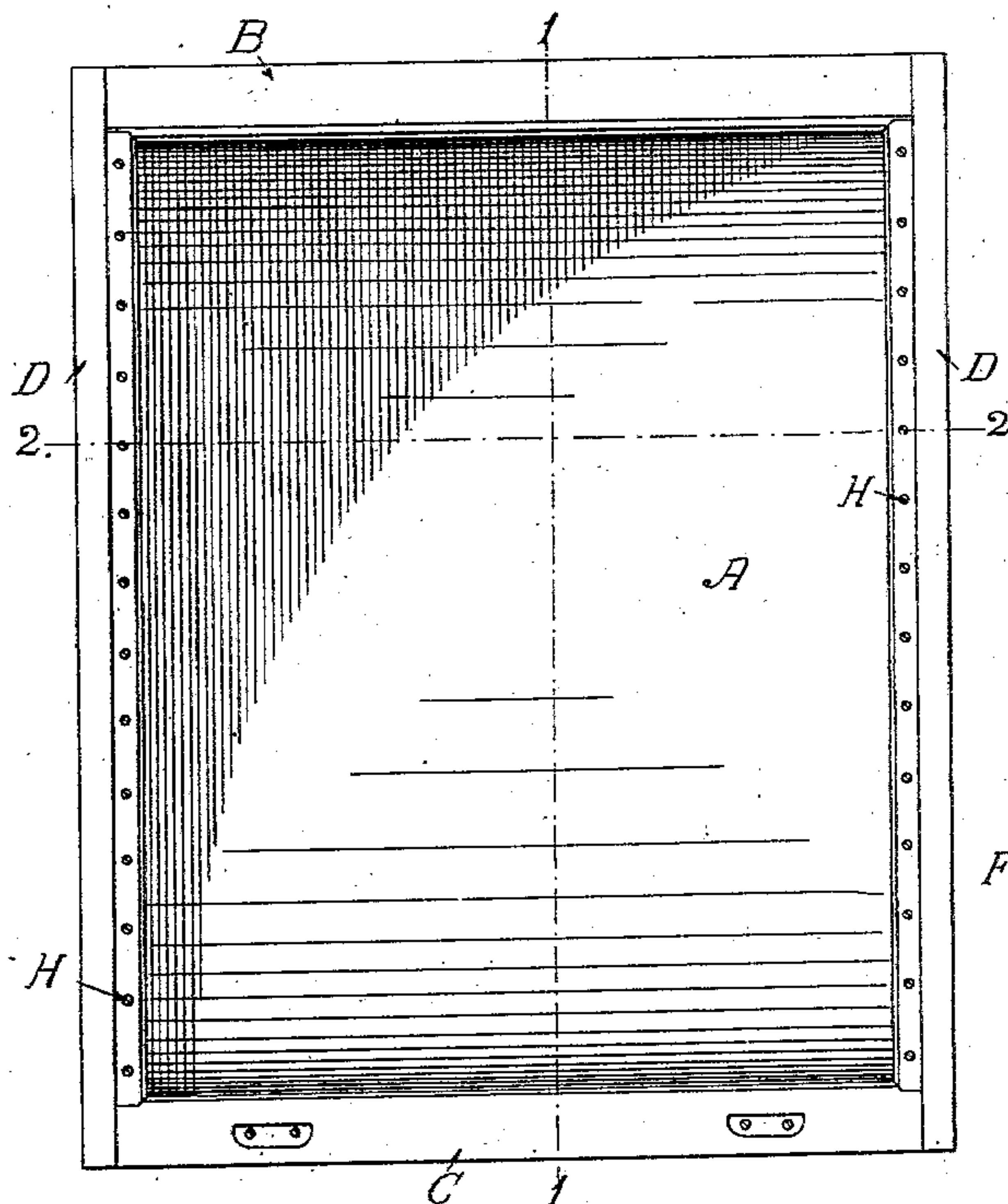


Fig. 1.

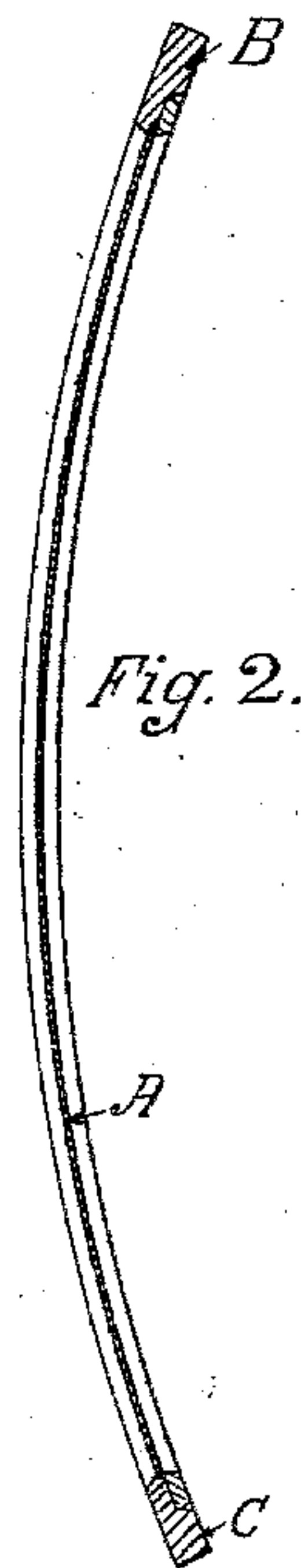


Fig. 2.

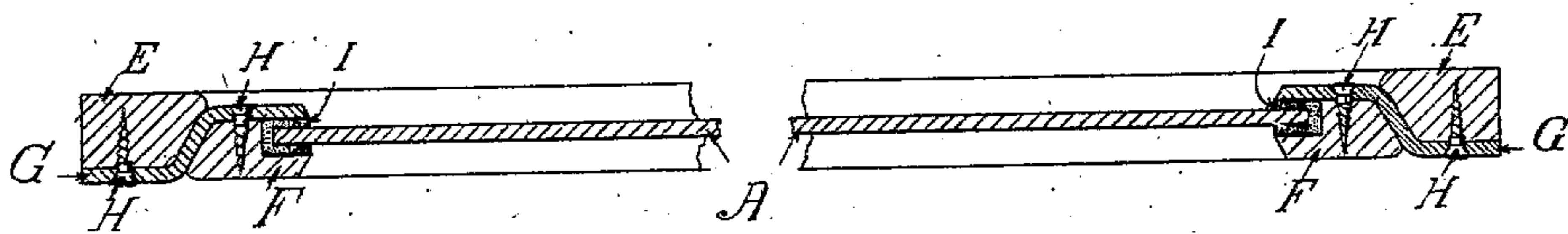


Fig. 3.

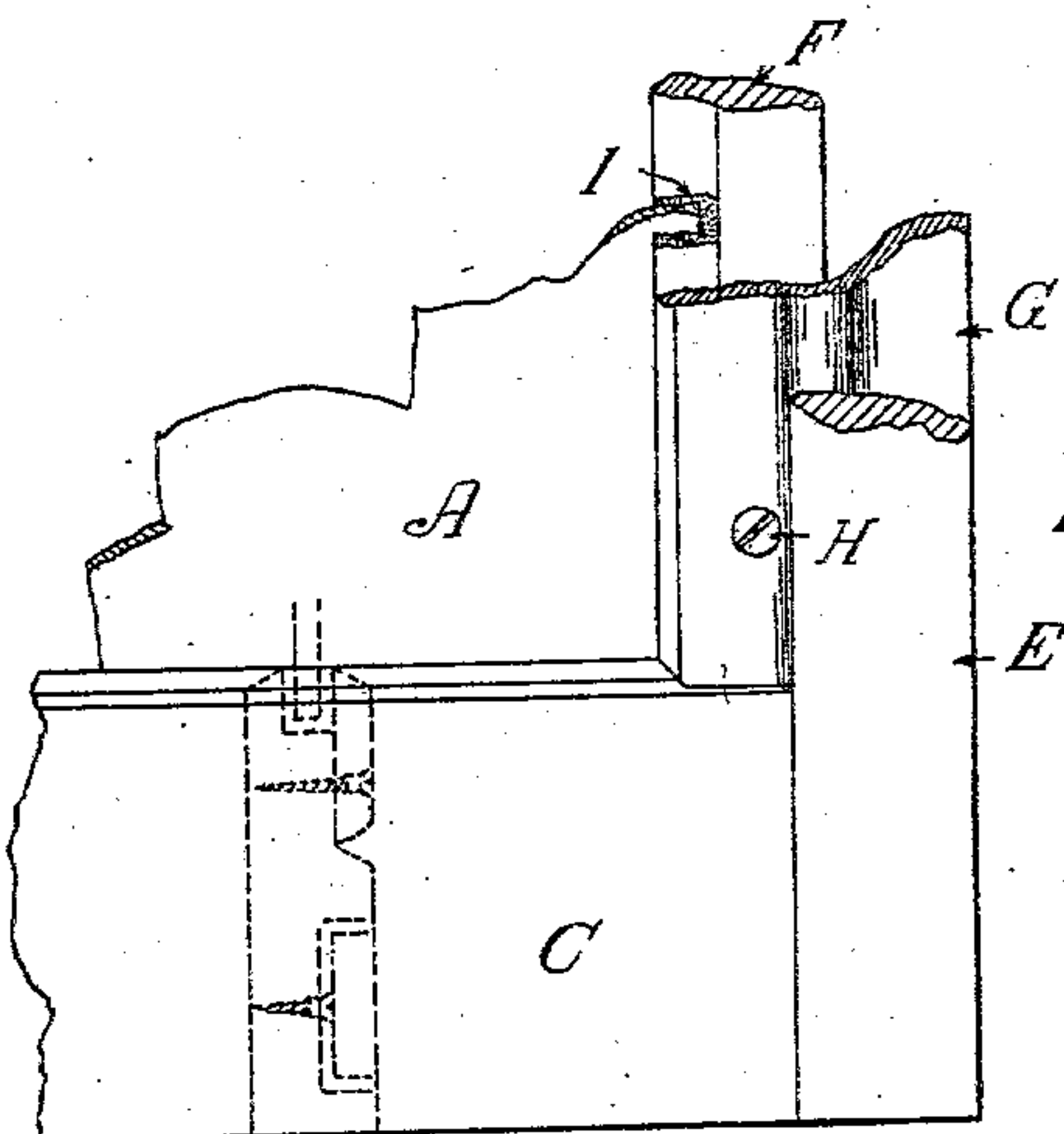


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

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FRAME OR SASH FOR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 753,315, dated March 1, 1904.

Application filed August 5, 1903. Serial No. 168,319. (No model.)

To all whom it may concern:

Be it known that I, HERMANN ROMÜNDER, a citizen of the United States, residing at Bloomsbury, in the county of Hunterdon and State of New Jersey, have invented certain new and useful Improvements in Frames or Sashes for Windows, of which the following is a specification.

My invention is designed more particularly to provide a rigid sash or frame for windows in passenger-cars; but the same improved construction may be applied more generally for all other purposes requiring rigid framework.

The objects of my invention are to provide an absolutely rigid window sash or frame that will not spring nor shrink or swell, especially the upright stiles of the sash, which usually slide in grooves of the window-casing, so that the window may be readily and easily raised and lowered and will not become tight and hard to lower or raise during wet and damp weather or become loose and rattle in the grooves during dry weather and that at the same time will be both strong and durable and of pleasing effect, also simply and cheaply constructed and so arranged as to be able to get the window-pane almost or entirely into the center of the window frame or sash.

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

Figure 1 shows the glass pane and window sash or frame. Fig. 2 shows a vertical section on line 1 1 of Fig. 1. Fig. 3 shows a horizontal section on line 2 2 of Fig. 1. Fig. 4 is a detail of part of the sash, on a larger scale, showing a corner of the sash and the detail of construction.

A is the glass pane, and the sash or frame is so constructed as to be absolutely strong and durable and may be curved, as shown, or straight, as may be required to conform to the grooves provided in the window-casings, in which grooves the sash slides when raised or lowered.

The sash is constructed with a top rail B and a bottom rail C of usual construction and preferably consisting of wood or other suitable material suitably connected by the upright stiles D D. These stiles are constructed with wood facings E and F, mounted upon

what I call a "Z-shaped piece" or "Z-bar" G, which is preferably of metal or other strong, rigid, and malleable material, so set that one part is visible on the outside of the sash and the other part on the inside, the wood facing E being preferably used on the outside of the sash and the wood facing F preferably on the inside; but this is optional and may be reversed, the wood facings being firmly held to the Z-shaped piece or bar by means of screws H H or otherwise. As shown in Fig. 2, these upright stiles are curved when the windows are used, for instance, in passenger-cars with curved sides, the curvature of the stiles corresponding with that of the grooves provided in the window-casings, in which grooves the window-sash slides when raised or lowered; but, as stated above, the stiles may be straight for use in straight grooves without changing the nature of my invention.

The glass pane A is embedded, preferably, in rubber I or other yielding material and by means of my improved construction may be set and held nearly or quite in the center of the window-sash.

This window frame or sash is easily and cheaply constructed and at the same time of great strength and durability.

I claim—

1. A window sash or frame composed of the usual top and bottom rail and upright stiles, connecting the top and bottom rail, which stiles consist each of an almost or entirely Z-shaped piece, preferably of metal, filled with wood or other material, secured thereto by means of screws or otherwise, so that one part of the Z-shaped piece of the upright stiles is visible on the outside of the window-sash and the other part is visible on the inside of the window-sash, the center part of the Z-shaped piece being covered by wood facing on both sides.

2. In a window sash or frame the upright stiles consisting each of an almost or entirely Z-shaped piece, preferably of metal or other strong, rigid and malleable material, and wood facings suitably secured thereto, so that the wood facings cover the center part of the Z-shaped piece on both sides and leave one part of it visible on the inside and the

other part visible on the outside of the window-sash; the upright stiles being suitably connected to the top and bottom rails, preferably consisting of wood or other suitable material, and thus forming a strong and rigid window-sash.

3. In a window sash or frame upright stiles consisting each of a rigid Z-shaped metal stiffening-bar covered by wood or other suitable material so that one part of the Z-shaped piece or bar is visible on one side and the other part is visible on the other side of the window-sash, the center part being covered by the wood facing on both sides; the said stiles being either curved or straight, as may be required, to conform to the grooves provided in the window-casing, in which said grooves the window-sash slides when raised or lowered, and suitably secured to the top and bottom rails of the window-sash; the glass pane being preferably embedded in rubber or

other yielding material, and by reason of the construction of the upright stiles may be set and held nearly or quite in the center of the window-sash.

4. In a window sash or frame upright stiles consisting each of a Z-bar, preferably of metal or other rigid and malleable material, and an inner and an outer wood facing, suitably secured thereto by means of screws or otherwise, and the usual top and bottom rails, forming a rigid window-sash; the glass pane being preferably embedded in rubber or other suitable yielding material and set between the Z-bar and the inner wood facing, and thereby held almost if not quite in the center of the window-sash.

HERMANN ROMÜNDER.

Witnesses:

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