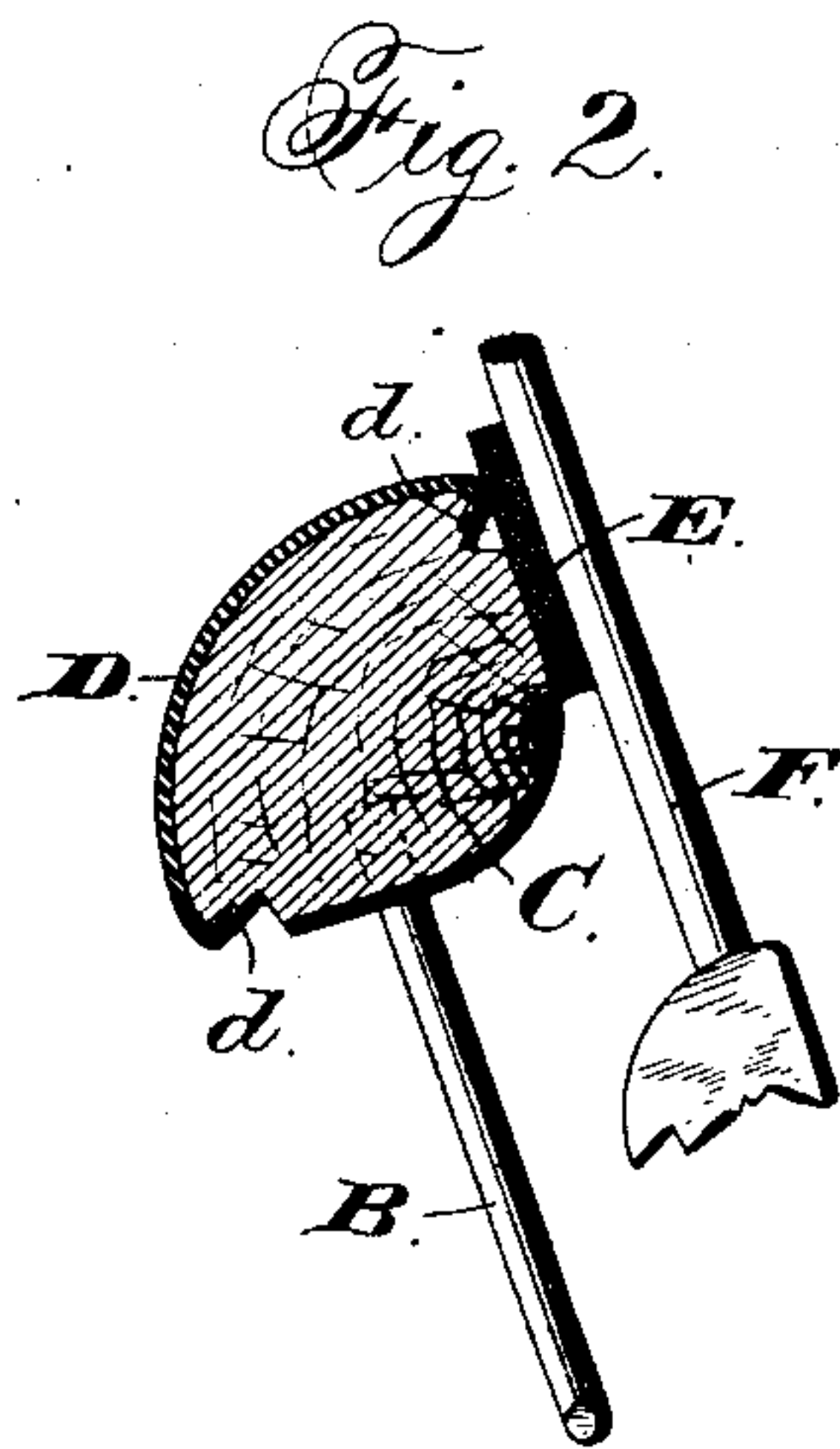
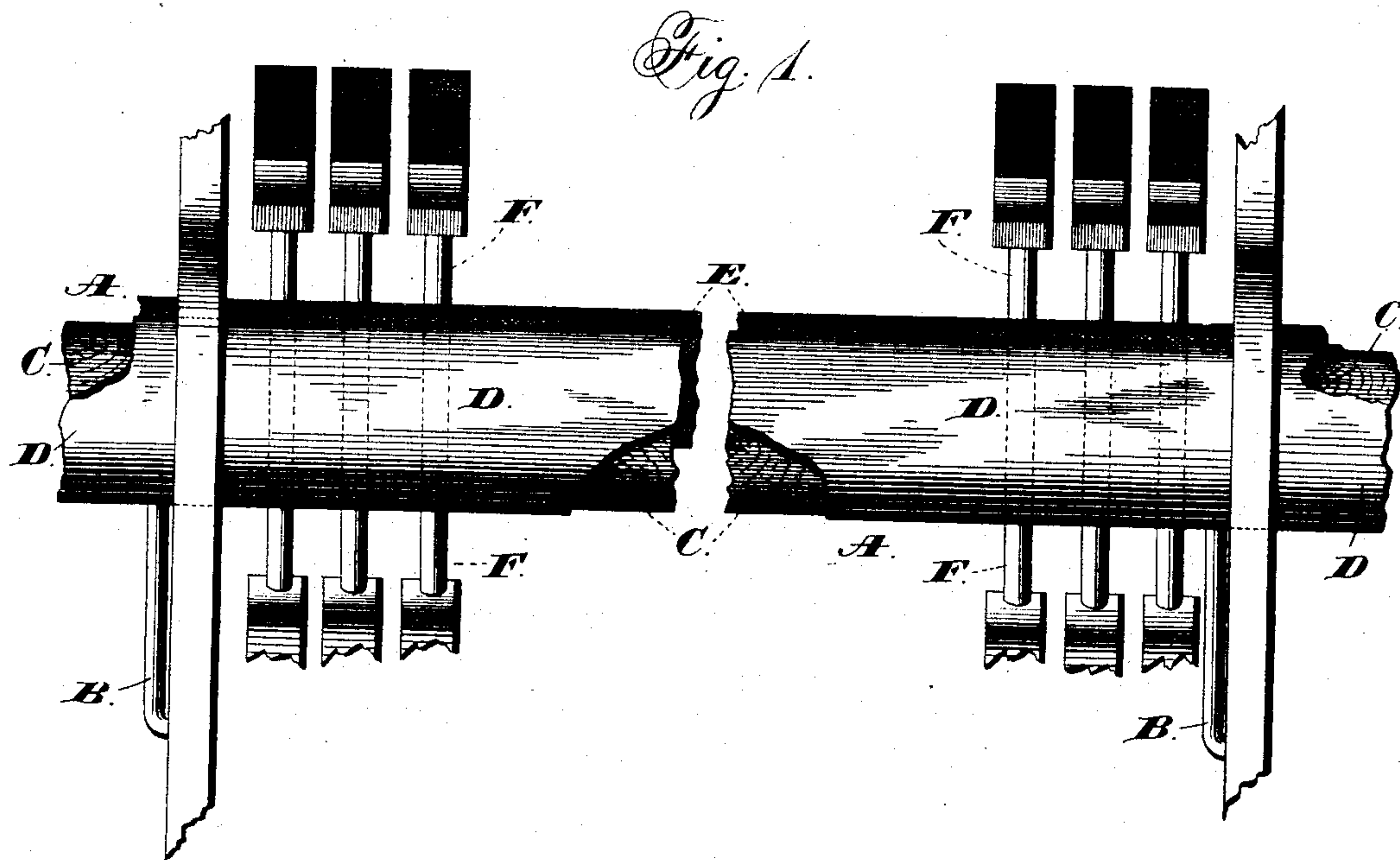


(No Model.)

C. D. PEASE.
ACTION RAIL FOR PIANOS.

No. 344,677.

Patented June 29, 1886.



Witnesses:
Josh Hutchinson.
Henry C. Hazard.

Inventor.
Chauncey D. Pease
by P. H. Russell
his Attorney

UNITED STATES PATENT OFFICE.

CHAUNCEY D. PEASE, OF NEW YORK, N. Y.

ACTION-RAIL FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 344,677, dated June 29, 1886.

Application filed November 30, 1885. Serial No. 184,284. (No model.)

To all whom it may concern:

Be it known that I, CHAUNCEY D. PEASE, of New York city, in the county of New York, and in the State of New York, have invented certain new and useful Improvements in Action-Rails for Pianos; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 shows a view in front elevation of my action-rail and a portion of the action, and Fig. 2 a transverse sectional view of the rail.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to provide an improved action-rail for pianos and the like, which shall be light while stiff, and capable of resisting all tendency to warp, which shall be ornamental while being mainly composed of light and soft wood, and so formed that the cushion-strip for the hammers can be most conveniently and readily fastened; and to these ends my invention consists of the action-rail and the construction, arrangement, and combination of the parts thereof, substantially as hereinafter specified.

In the drawings, A designates the action-rail, which is preferably supported on the pivot-arms B B, so as to be capable of being swung toward the strings or wires to lessen the throw of the hammers when soft pedal is desired. The hanging or supporting of the rail forms, however, no part of my invention.

So far as my improved action-rail is concerned, it can be stationary or movable and fixed or supported in any way, as desired. Said rail consists of the main portion or body C, which I prefer to make of light soft wood.

An action-rail composed of wood alone—even of hard wood—is very liable to warp and bend under the influence of the atmosphere and changes in temperature. Any such warping or bending is objectionable and injurious, as it throws the hammers or strikers out of line and makes the throw of some greater than that of others. I therefore provide the wooden rod or bar C, forming the body of the rail, with a metal facing, D, drawn on and closely fixed thereto, so as to form a compound wood and metal rail.

The front side of the body of the rail I prefer to make convex, as shown most clearly in

Fig. 2. Upon and fitting this side is drawn the metal facing D, with its upper and lower edges overlapping the upper and lower corners of the rail-body, and then turned inward into the wood, as shown at *d d*. The rest of the wooden body is left uncovered with metal, thus leaving a wooden surface at the back of the rail, to which the hammer-cushion strip E, for receiving the hammers or strikers F F as they fall back, can be fastened most easily and advantageously.

Where, as has heretofore been done, it is attempted to gain strength and stiffness and avoid warping by making the action-rail of a metal tube with or without a wooden core driven into it, the rail has necessarily been objectionably heavy, and the hammer-cushion strip could not be properly fastened in place without screws.

In my rail as constructed the stiffening metal only covers the front face of the body of the rail, and does not increase the weight of the bar to any objectionable extent. As, when it is drawn on as described, it fits the convex or rounded front face of the rail-body and at its edges clamps the corners thereof, it has been found to be capable of holding said body firmly and stiffly as set, so that when the rail is once made straight it will stay so always.

When, as shown in the drawings, the metal facing or covering is made concave to fit the convex face of the bar—that is, is grooved longitudinally—it possesses very great power of resistance to bending because of its shape, and I therefore prefer to make the rail-body so convex on its front side and the covering to fit the convexity. I do not desire, however, to limit myself to any particular shape of the body or facing. Both can be correspondingly grooved longitudinally or made nearly or quite plane.

In making the rail as shown in the drawings and described herein, I prefer to use a die which draws the facing onto the rail-body and turns its edges into the wood at one operation.

Any kind of metal or other suitable material desired can be used for the facing; but I consider German silver preferable, as it has sufficient strength, and is at the same time ornamental and not liable to tarnish.

Instead of fastening the facing by turning in the edges, as shown and described, said edges

can be fastened to the body in other ways and by other means, the only requisite being that they shall be so firmly fastened that the facing and the body of the rail shall form one compound piece.

I do not claim as my invention or desire to cover by the claims in this application traverses or a traverse, made of metal, or of metal tubes filled with wood, as such I know to be old.

10 Having thus described my invention, what I claim is—

1. As an article of manufacture, an action-rail having the wooden body and the longitudinal strip of metal fastened thereto, so as to 15 leave a portion of the wooden body exposed for attachment of the hammer-cushion, substantially as and for the purpose specified.

2. In combination with the body of an action-rail, a strip of stiffening material fastened 20 to the body by means of its inturned edges, substantially as and for the purpose set forth.

3. In combination with the wooden body of the action-rail, a strip of sheet metal on the front face of the body fastened to the body by means of its inturned edges, substantially as 25 and for the purpose described.

4. In combination with the wooden body of an action-rail, having its front side rounded or convex, the metal facing fitting the front side of the rail-body and having its edges overlapping the corners of the body and fastened by 30 being turned or bent into the wood, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of 35 November, A. D. 1885.

CHAUNCEY D. PEASE.

Witnesses:

GEO. S. PRINDLE,
HENRY C. HAZARD.