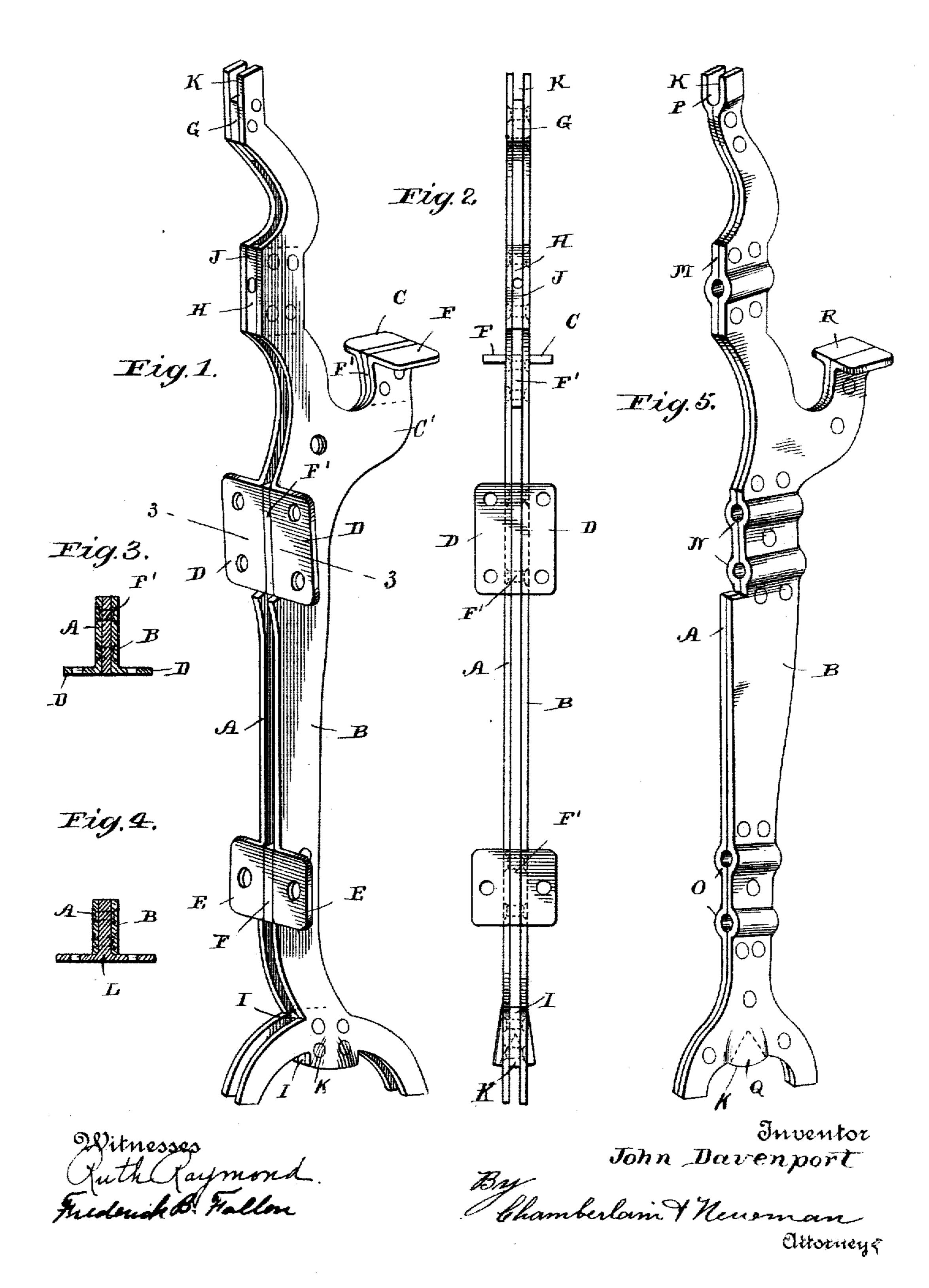
J. DAVENPORT.

PIANO ACTION BRACKET.

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UNITED STATES PATENT OFFICE.

JOHN DAVENPORT, OF STAMFORD, CONNECTICUT.

PIANO-ACTION BRACKET.

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Specification of Letters Patent.

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To all whom it may concern:

citizen of the United States, and a resident of Stamford, in the county of Fairfield and 5 State of Connecticut, have invented certain new and useful Improvements in Piano-Action Brackets, of which the following is a specification.

My invention refers to an improved form o of piano-action bracket, made of sheet metal and adapted to be contained within an upright piano to support the operating mech-

anism for the hammers.

It is the objects of my invention to produce :5 a sheet-metal piano-action bracket from two main parts or plates of sheet metal, having means for its attachment to the connecting parts of a piano, and further provided with means for the attachment to it of the ham-20 mer-operating mechanism to construct the foregoing in a simple and efficient manner and to insure an inexpensive production.

Similar characters of reference denote like or corresponding parts throughout the sev-25 eral figures of the accompanying sheet of drawings, forming a part of this specification.

Upon the drawings, Figure 1 shows a perspective view of the preferred form of my improved piano-action bracket complete. 30 Fig. 2 is a rear edge elevation of the construction shown in Fig. 1. Fig. 3 is a detail transverse cross-section taken on line 3 3 of Fig. 1, illustrating the manner in which the parts are laid together. Fig. 4 is a similar cross-35 section of a modified form of construction which may be employed in lieu of that shown in Figs. 1, 2, and 3, as will again be referred to. Fig. 5 is a modified construction of bracket, the same being formed of two pressed 40 plates riveted together and minus the fillingpieces shown in the preceding views.

As stated, my bracket is made of sheet metal and preferably of two main side plates A and B, which are arranged and riveted to-45 gether to form an integral bracket. These individual side plates are made of comparatively thin stock and can be stamped out with dies in a press to produce a bracket of any required design. These sides are alike in 50 construction, except that one is a right and the other a left, as is obviously apparent. Each of these side plates, as shown in Figs. 1, 2, and 3, contain outwardly-deflected ex-

tensions or ears C, D, and E, the former upon Be it known that I, John Davenport, a | an arm C' to produce a hammer-rail rest F 55 and the latter to form attaching-flanges for the rails which support the hammer mechanism. (Not shown.) Intermediate of the side plates A and B at these particular locations for attachment I provide filling-pieces F', 60 which are of uniform thickness and serve to retain the sides at a uniform distance apart, being riveted together, as indicated. Additional filling-pieces G, H, and I are placed intermediate of these sides, one being located 65 at the lower end, another at the top, and the third intermediate at the point J. Rivets are employed through the sides and the filling-pieces at each of the places mentioned to properly secure the parts together. The 70 lower end piece I of the bracket contains a socket which in practice receives the end of the supporting-bolt. (Not shown.) A second bolt-socket K is also formed intermediate of the upper ends of the sides adjacent to 75 the piece G to accommodate the upper bolt, (not shown,) which in practice is secured to the wrest-plank or pin-block of the piano. The block shown at J contains a screw-hole to permit of the attachment thereto of the 80 upper rail of the hammer mechanism.

> If preferred, two short T-pieces L, as shown in Fig. 4, can be used in lieu of each of the pieces F', in which instance the flanges of the T could be employed for attachment to 85 the rail instead of the flanges D and E (shown in Figs. 1 and 2) and which are integral with

the side plates.

I find it more practical and desirable to make some forms of these brackets of two 90 pieces, as shown in Fig. 5, wherein the same number of locations for bolt-and-rail connections are shown, each of which are formed of the side plates and without the use of the pieces, as in the other instances. Rail con- 95 nections M, N, and O are provided by forming screw-holes through the body of the bracket produced by stamping half-round transverse grooves across the inside of the body of the two side plates, as indicated. I 100 also stamp and deflect the top and bottom portions P and Q of each side outward to form a bolt-socket K intermediate thereof. I also deflect the free ends, as at R, to form the hammer-rail rest.

Having thus described my invention, what

 $(\lambda_{n-1})_{n \in \mathbb{N}}$

I claim, and desire to secure by Letters Patent, is—

1. A piano-action bracket formed of two like sheet-metal side plates secured together and having an arm with ends deflected in opposite directions to form a hammer-rail rest, and bolt-sockets in the ends of the bracket.

2. A piano-action bracket formed of two like sheet-metal side plates secured together and having an arm with ends deflected in opposite directions to form a hammer-rail rest, bolt-sockets in the ends of the bracket, and screw-holes for the attachment of said bracket to action-rails.

3. A piano-action bracket formed of two like plates of sheet metal, each containing an arm with deflected ears, to form a hammer-rail rest, additional extensions bent to form attaching-flanges, and bolt-sockets in the ends of the brackets.

4. A piano-action bracket comprising two sheet-metal side members bearing an arm to form a hammer-rail rest, metal pieces secured intermediate of said side members to broaden and strengthen the bracket, and screw-holes and sockets for the attachment of the bracket to action-rails.

5. A piano-action bracket comprising two sheet-metal members secured together each containing an arm with ears deflected at a right angle to form a hammer-rail rest, and additional similarly-deflected flanges with screw-holes therein for the attachment of the bracket.

6. A piano-action bracket formed of sheet metal and comprising two side plates each having an arm containing ears deflected to

form a hammer-rail rest, filling-pieces intermediate of said plates, and bolt-sockets formed in the end of said bracket.

7. A piano-action bracket comprising two sheet-metal members secured together containing integral flanges deflected therefrom for the attachment of the bracket, and pieces secured intermediate of said flanged portions 45 of the bracket, and bolt-sockets in the ends of said bracket.

8. A piano-action bracket formed of two like pieces of sheet metal secured together, each containing integral arms bearing ears 50 bent to form a hammer-rail rest and additional ears to form flanges for attachment to action-rails, pieces intermediate of said plates, and bolt-sockets formed in the ends of the bracket.

9. A piano-action bracket formed of two 55 like plates of sheet metal including an arm, integral ears on the plates of the bracket bent to form a hammer-rail rest and attaching-flanges, pieces intermediate of said arms and ears of the plates and bolt-sockets in the ends 60 of the bracket.

10. A piano-action bracket comprising two sheet-metal side members, pieces intermediate of said sides, bolt-sockets in the upper and lower ends of said brackets and additional 65 screw-holes through portions of the bracket for attachment to action-rails.

Signed at Stamford, in the county of Fair-field and State of Connecticut, this 24th day of December, A. D. 1904.

JOHN DAVENPORT.

Witnesses:

C. M. NEWMAN, W. V. DEVITT.