

(No Model.)

C. F. CHICKERING.

PIANO FORTE.

No. 350,292.

Patented Oct. 5, 1886.

Fig. 1.

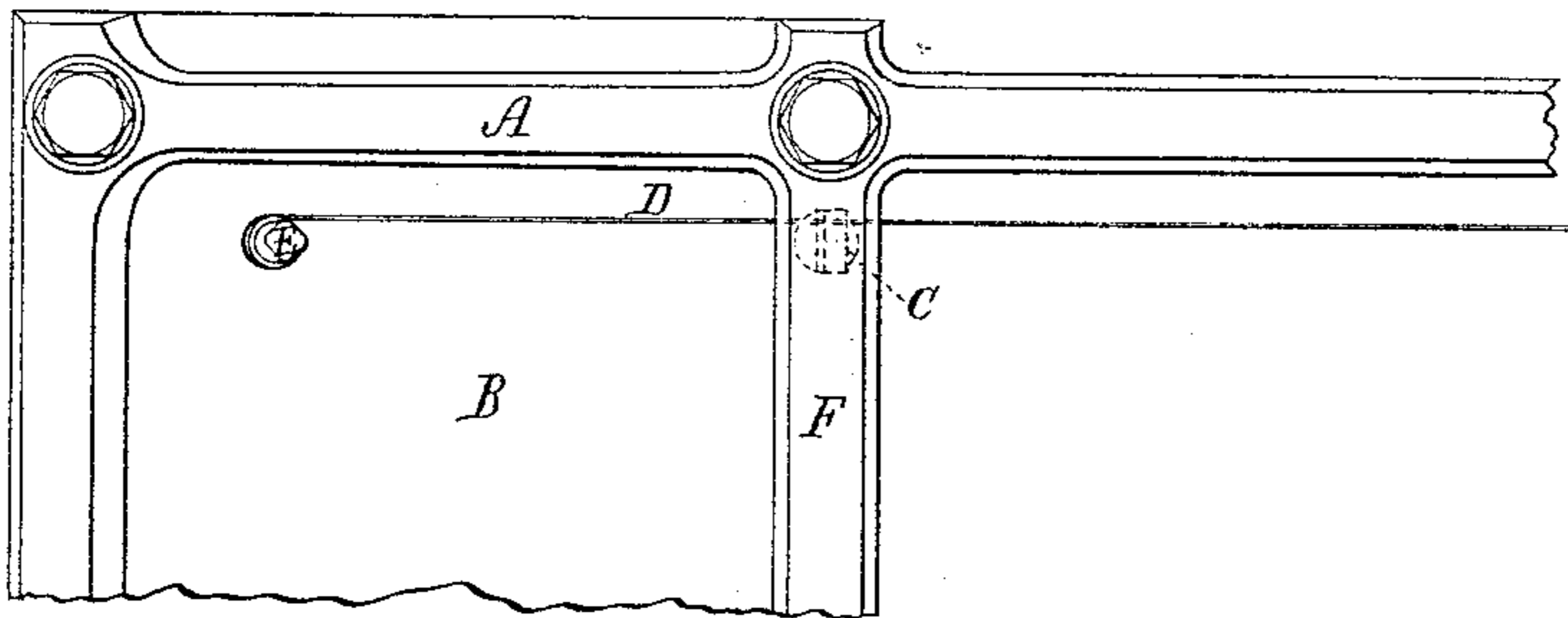
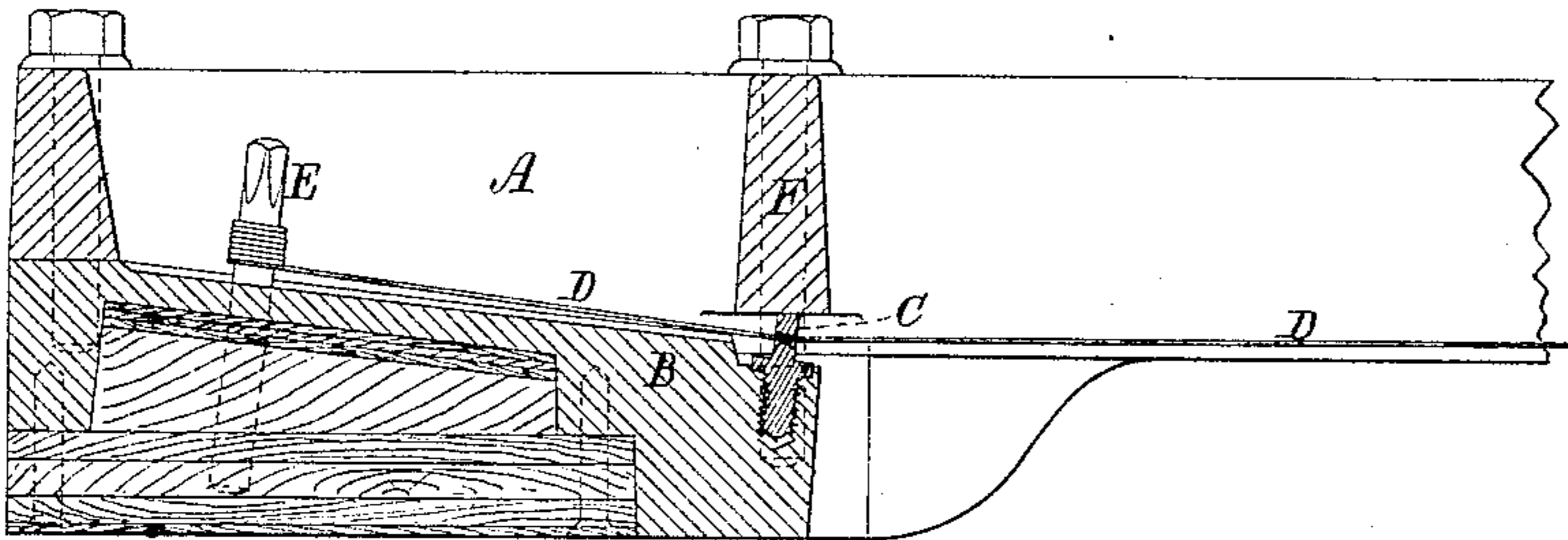


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES FRANCIS CHICKERING, OF NEW YORK, N. Y.

PIANO-FORTE.

SPECIFICATION forming part of Letters Patent No. 350,292, dated October 5, 1886.

Application filed July 26, 1886. Serial No. 209,104. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FRANCIS CHICKERING, of the city, county, and State of New York, have invented a new and useful
5 Improvement in Piano-Fortes; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Fig. 2 a sectional
10 view, of part of the iron string-frame of a "grand piano-forte" with my invention applied thereto, and to one or more of the string-supporting agraffes, the object of the improvement being to afford to the said agraffes a
15 counter-support against the upward strain of the strings upon them.

In carrying out my said invention I do not have, as usual, the wrist-pin and agraffe-support piece integral with the string sustaining
20 iron or metallic frame, but a piece or bar of metal separate from the said frame, and extending under and secured to it by screws or other suitable means; and I also have to the frame a bar abutment or extension to go di-
25 rectly over and bear on the heads or upper ends of the several agraffes, in order to hold them against the upward strain of the strings going through them.

My invention saves the necessity of having
30 the metallic frame open, as it usually is, to admit of the insertion of the agraffes into it after it is in place in the instrument, such construction of the frame rendering it weak and not so good a support of the agraffes as it is with
35 my improvement.

In the drawings, A denotes part of the iron frame for sustaining the strings of a grand piano.

B is the agraffe-support piece, which, though
in a separate piece from such iron frame, ex- 40
tends underneath it, and is secured to it by screws or other suitable means. C is an agraffe
screwed into the said support-piece, while D
is a string wound about a wrist or straining
pin, E, extending up from and inserted in the 45
support-piece, such string going through the agraffe, to which it inclines from the strain-
ing-pin, and thence proceeds horizontally at
an obtuse angle, the vertex of which is at the
agraffe. 50

From the iron frame there projects directly
over and upon the heads or upper ends of the
agraffes a bar or abutment, F. 55

The strain of the string tending to force up-
ward each agraffe and its support-piece will be
counteracted by the iron frame and the said 55
addition F thereto, which I prefer to have in-
tegral or in one piece with such frame.

Before the iron frame is inserted in the
piano-frame the agraffe-support piece, with the 60
agraffes fixed in it, is placed within the latter frame, the iron frame being next arranged and
fastened into the body of the instrument and
to the said support-piece.

I claim— 65

In a piano-forte, the combination of the
agraffe-support piece separate from the string-
sustaining metallic frame with such frame,
provided with an abutment or bar to extend
over and rest upon the upper ends of the 70
agraffes, all being substantially and for the
purpose as set forth.

CHARLES FRANCIS CHICKERING.

Witnesses:

E. G. GOTTSCHALK,
SAML. V. SPEYER.