

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN GRAND-PIANO-FORTE FRAMES.

Specification forming part of Letters Patent No. **175,336**, dated March 28, 1876; application filed February 14, 1876.

To all whom it may concern:

Be it known that I, CHARLES F. CHICKERING, of the city and county and State of New York, have invented a new and useful Improvement in Iron Frames for Grand Pianos, of which the following is a specification:

Figure 1 represents my improvement as applied to the frame of a grand piano, and Fig. 2 is a detail vertical section of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to strengthen the pin-block and prevent it from being drawn upward by the tension of the strings.

The invention consists in the webs and plate formed in one solid piece with the longitudinal bars and the plate attached to the pin-block, in combination with the belly-rail and the pin-block, to strengthen the frame against the upward pull of the strings, as hereinafter fully described.

A represents the pin-block; B, the belly-rail; C, the sounding-board; D, the bridge, and E a longitudinal bar of the frame. Upon the forward ends of the bars E is formed a

plate, F, which is secured to the edge of the pin-block A, and to which the agraffes are attached. Upon the lower side of the forward ends of the longitudinal bars E are formed webs G, which project downward, and upon the rear edges of which is formed a plate, H. The plate H is firmly secured to the forward side of the belly-rail B. The longitudinal bars E, the plate F, and the plate H are thus formed in one solid piece, and greatly strengthen the frame, and hold it against the upward pull of the strings upon the agraffes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The webs G and plates H, formed in one solid piece with the longitudinal bars E and the plate F, in combination with the belly-rail B and the pin-block A, to strengthen the frame against the upward pull of the strings, substantially as herein described and shown.

CHARLES F. CHICKERING.

Witnesses:

JAMES T. GRAHAM,
JAMES H. HUNTER.