(No Model.)

C. H. MAHLING.

PIANO FRAME.

No. 372,035. Patented Oct. 25, 1887.

Fig: 1.

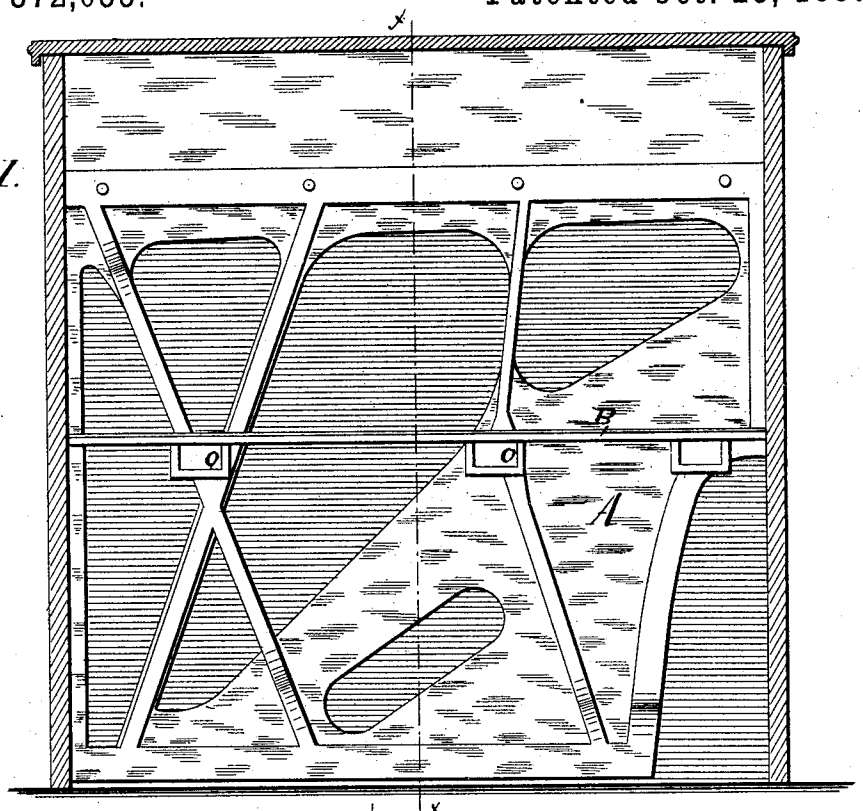


Fig: 2.

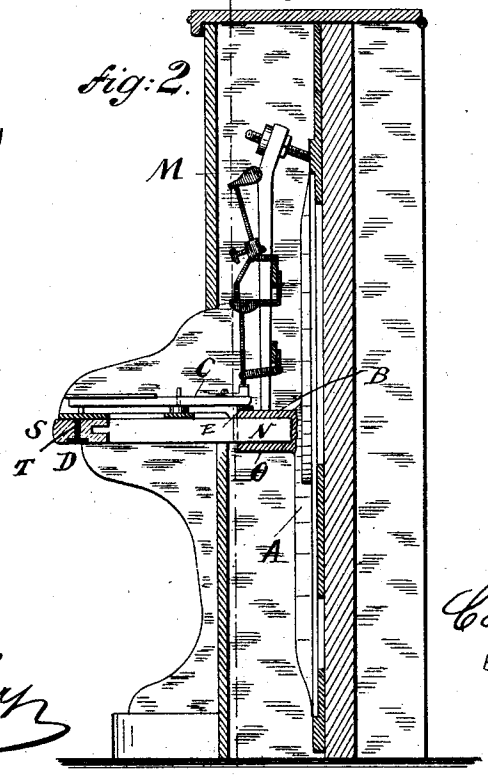


Fig: 3.

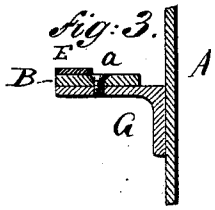


Fig: 4.

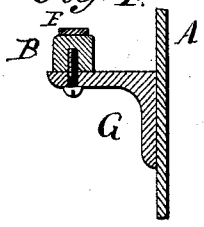


Fig: 5.

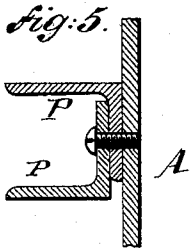
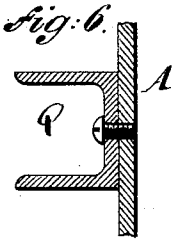


Fig: 6.



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UNITED STATES PATENT OFFICE.

CARL H. MAHLING, OF NEW YORK, N. Y.

PIANO-FRAME.

SPECIFICATION forming part of Letters Patent No. 372,035, dated October 25, 1887.

Application filed March 12, 1887. Serial No. 230,582. (No model.)

To all whom it may concern:

Be it known that I, CARL H. MAHLING, of the city, county, and State of New York, have invented certain new and useful Improvements in Key and Action Rests, of which the following is a specification.

Heretofore upright piano-fortes have been constructed with a wooden key-bottom for supporting the keys, and some upright pianos have been provided with brackets or projections on the front of the metal plate for the purpose of supporting the action.

The object of my invention is to provide a piano-forte frame or plate with a horizontal metal bar, cast on or secured in any suitable manner on the front of said plate in such a position that the inner ends of the keys can rest on said bar.

A further object of my invention is to combine with such bar pockets or receptacles for supporting the key-bottom.

The invention consists in the combination, with the usual metal piano frame or plate, of a horizontal metal bar, cast on or secured in any other suitable way to the front of the frame, so as to support the rear ends of the keys.

The invention further consists of the combination, with the plate, of said bar, and pockets or receptacles for receiving the inner ends of the transverse bars of the key-bottom, all as will be fully described and set forth hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view of the metal frame or plate of a piano-forte provided with my improved key-bar and action-rest, the casing of the piano being shown in section and the action omitted. Fig. 2 is a cross-sectional view on the line *x x*, Fig. 1, the key-bottom frame and parts of the action being in section. Figs. 3, 4, 5, and 6 are enlarged cross-sectional views of the key and action and bottom rest, showing different constructions.

Similar letters of reference indicate corresponding parts.

The metal frame or plate A of the piano-forte is cast in the usual manner, and on the face of the same I provide a horizontal bar, B, which serves as a rest for the inner ends of the keys, which are pivoted in the usual manner on a key-bottom, D, projecting from the front of the piano. A cushion, E, is provided on the top of the metal bar B, upon which cushion the inner ends of the keys rest.

As shown in Fig. 3, the bar B can be fastened, by means of the screws *a*, on brackets G, projecting from the front of the plate A, and cast integral with the same. As shown in Fig. 4, the said bar B can be fastened by screws passed through the under side of the bracket, said bar being approximately square in cross-section, whereas in Fig. 3 it is shown oblong in cross-section. It is evident that in place of fastening the bar B on brackets the entire bar B can be cast integral with the frame, which is thus stiffened and made more rigid. The bar B may be composed of an angle-iron fastened by means of bolts or screws to the front of the plate A, as shown at P in Fig. 5.

The advantage of using a metal bar for supporting the inner ends of the key-levers is very great, as a metal bar does not warp, sag, or twist, as the wooden bottoms do, and the rear ends of the keys are always in perfect alignment and in contact with the action. The construction of the instrument is also simplified and the entire instrument made more rigid and firm.

The action-frame M, which is mounted to swing toward and from the front of the metal plate A, has its lower ends or pivots on the bar B, and no special brackets are required for this purpose, as heretofore. Heretofore it has been customary to provide jaws or cheeks at the side edges of the plate at the front for receiving the end pieces of the key-bottom. I dispense with these end cheeks or jaws and insert the inner ends of the transverse bars N of the key-bottom into pockets O, cast on the front of the metal frame A, directly below the bar B and integral with the same, and also integral with the frame A. If desired, the pockets only may be cast integral with the frame and the bar B be fastened by means of screws to the pockets; or, in place of providing pockets for the bars N, two angle-irons may be fastened, by means of screws or bolts, on the front of the frame or plate, said angle-irons extending the whole width of the front of the frame or only part of the same. In place of using two angle-irons P, a channel-bar, Q, may be used, as is shown in Fig. 6, the inner

part of the key-bottom D being inserted into the channel-bar.

The transverse bars N of the key-bottom are united at the front by the longitudinal bar S, which is stiffened or braced by a T-iron, T, as shown in Fig. 2.

By combining the supports for the inner ends of the transverse bars of the key-bottom with the above-mentioned bar B the construction of the piano is still more simplified, and all parts are made rigid, solid, and firm.

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

1. An upright piano having a horizontal metal support in front of the metal plate, extending the entire length of said plate, substantially as shown and described.

2. An upright piano provided with a horizontal support on the front of the metal plate and forming a rest for the inner ends of the keys, substantially as shown and described.

3. In an upright piano, the combination, with a metal plate, of a horizontal metal bar fastened on said plate at the front of the same, keys having their inner ends resting on said horizontal bar, and an action-frame rested on said bar, substantially as shown and described.

4. In an upright piano, the combination of a metal frame or plate provided on its front with a metal bar for supporting the inner ends of the keys, and with pockets or receptacles on the front of the plate and below said bar, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CARL H. MAHLING.

Witnesses:
OSCAR F. GUNZ,
CARL KARP.