E. GABLER.
Piano-Forte.

No. 199,635. Patented Jan. 29, 1878.

Fig: 1

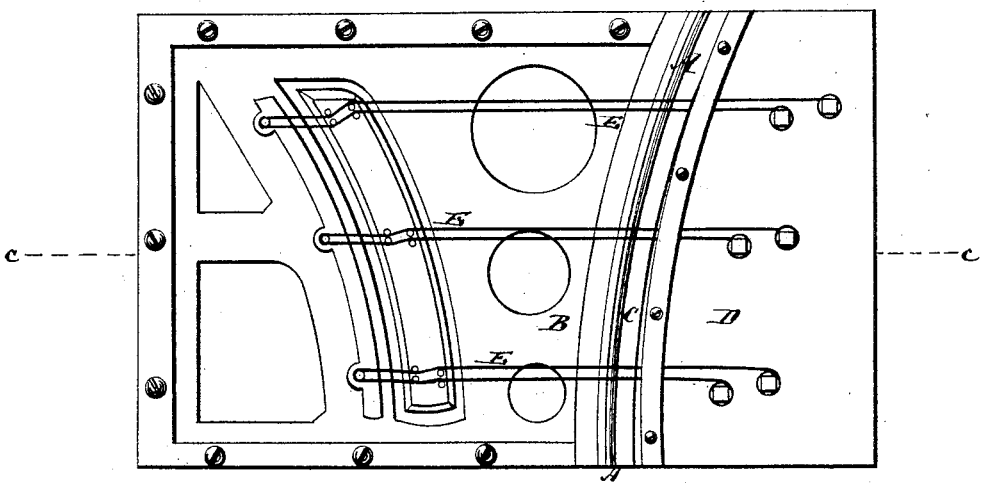
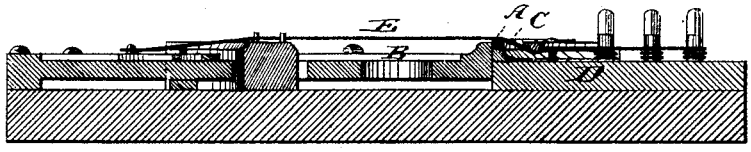


Fig: 2



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UNITED STATES PATENT OFFICE.

ERNST GABLER, OF NEW YORK, N. Y.

IMPROVEMENT IN PIANO-FORTES.

Specification forming part of Letters Patent No. **199,635**, dated January 29, 1878; application filed December 7, 1877.

To all whom it may concern:

Be it known that I, ERNST GABLER, of the city, county, and State of New York, have invented a new and useful Improvement in Piano-Fortes, of which the following is a specification:

Figure 1 is a plan view of a piano-forte frame, showing my improvement; and Fig. 2 is a vertical section thereof on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts in all the figures.

The object of this invention is to so improve the character of the string-bridge of a piano as to avoid the usual hollow wooden sound of those instruments in which the strings pass over a wooden string-bridge, and also to overcome the jingling metallic sound noticeable in instruments in which the strings pass over part of the metal of the frame.

My invention consists in applying, by the pressure of the strings, a strong supporting-wire or metallic rod against the back edge of the metallic plate, said wire or rod resting on a wooden bridge or on the wrest-plank. The wire or metal rod, being thus drawn against the wood and against the metal of the plate, will cause the instrument to acquire sufficient metallic ring in its sound without jingling, and to be sufficiently deep and sonorous without being as dull in sound as the instruments which support the strings on wood.

Heretofore string-bridges have often been made entirely of wood, glued to the wrest-plank, and grooved to receive a wire, over which the strings were placed; but that wire did not bear against the metal frame. In others the wire has been laid in a groove of the plate, and was, therefore, not in contact with the wood. Other instruments were made with a bridge cast of the same piece as the plate, and in others agraffes have been secured in the plate or wrest-plank to receive the strings. All of these constructions are objectionable.

In my instrument the metal wire A, which extends along the back of the metal plate B, rests throughout its length on a wooden bridge, C, which is placed upon the wrest-plank D in such manner that, when the strings E are placed over the wire A and tightened, they will draw the wire firmly against the back of the plate B of the piano-forte, and meanwhile said wire will rest on the wooden bridge C, or, if said bridge is dispensed with, directly on the wrest-plank. In other words, the bridge-wire A is not secured in place otherwise than by the action of the strings, which hold it firmly against the metal plate B, and also against the wooden support.

By this construction I produce, as I said before, such a combination of metallic richness of sound with wooden depth and sonorousness as will produce an instrument of surpassing excellence.

It is evident that, instead of making the wire A in one continuous length, it may be made in several lengths, each length being held in position by the strings that rest upon it.

Instead of making the bridge A of wire, a metallic strip or strips may be used.

I claim—

The combination, in a piano-forte, of the wire bridge A with the metal plate B, and with the supporting wrest-plank D and strings E, all arranged so that the wire A is held against the plate and against the wooden support by the pressure of the strings, substantially as herein shown and described.

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