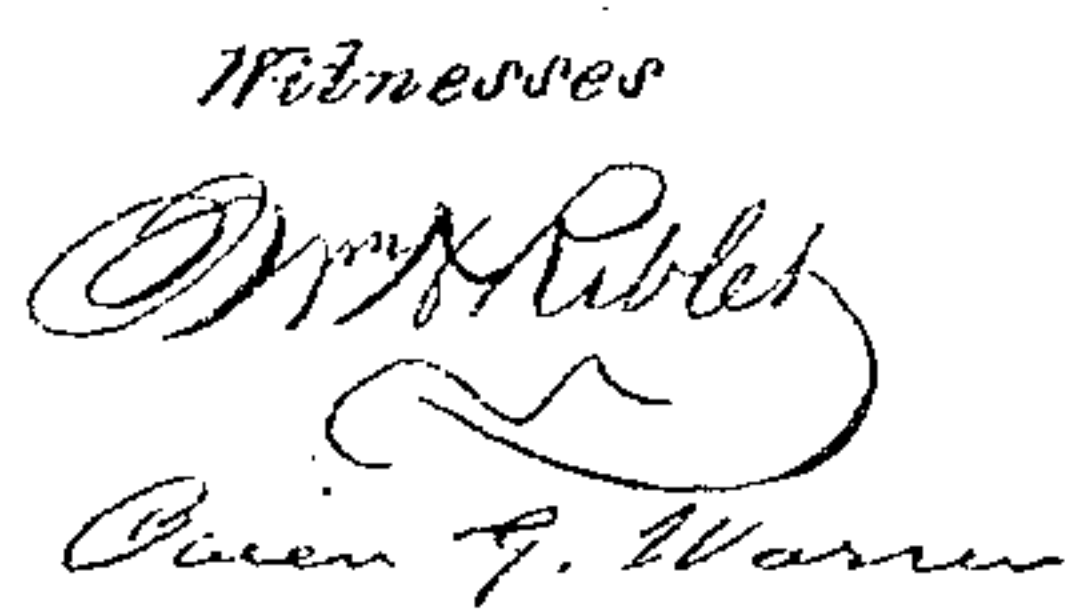


*Patented Oct 4, 1864.*



M. Reynard

# UNITED STATES PATENT OFFICE.

MAURICE VERGNES, OF NEW YORK, N. Y.

## IMPROVEMENT IN PIANO-FORTES.

Specification forming part of Letters Patent No. 44,566, dated October 4, 1864.

*To all whom it may concern:*

Be it known that I, MAURICE VERGNES, of the city, county, and State of New York, have invented a new and useful Improvement in Piano-Fortes, whereby the action is located at the front of the instrument, &c.; and I hereby declare that the following is a full and exact description thereof.

To enable others skilled in the business to make and use my invention, I proceed to describe its construction and operation, reference being had to the drawing hereunto annexed and making part of this specification.

The figure is a vertical section in the line of the key, showing the action.

The same letters refer to the same things in all the designs.

A is the key; B, the place where pivoted; C, a gum-elastic spring at the heel of the key to restore and hold it at its position; D, a vertical stem set on the under side of the key; E, a silk thread connected with action; F, a wire screwed into the lower end of the stem D, and upon it the silk thread E is wound to tighten it and effect the action; G, the hammer; H, the sub-cushion set on the hammer; I, the spring of gum-elastic that sustains the hammer; K, the damper; L, a wire or stem extending from the key down through the works to the lever to raise the damper; M, the lever of the damper.

The objects of this invention are to bring the action to the front part of the instrument to put it in a contracted space, so as to leave much room for sounding-board, &c., to invert the hammer, so that it will strike down on the string to regulate the action by an adjustable cord, E, and the tension upon the hammer by an adjustable cord, I, and generally so to improve the action that it will perfectly repeat

in *roulades*. It being important to reduce the space, the hammer rises a little into the substance of the key, which here needs very little strength. The other parts are so condensed that four inches' space will hold all the works. Beneath the key is a perpendicular stem, D, with a wire, F, screwed into the end. A silk thread is wound on this, and connected with the action to effect which it is only necessary to screw or unscrew the wire F. Upon the hammer is the sub-cushion H, set just below the shoulder. This becomes important upon inverting the action. It prevents the hammer rising after the stroke as long as the finger is retained upon the key, and also in all rapid passages. The arm of the hammer rises to a horizontal position, and in case of *roulades* the repetition is facile, the hammer having but half the distance to move.

To restore the hammer to its place when the finger is removed from the key and sustain it, an elastic cord, I, is attached to it at the heel. This reaches outside, and may be secured by a plug, or by a screw and nut. Thus the tension upon the hammer is easily adjustable.

It will be observed that in placing the action in front directly under the keys the keys may be made short and slight, and the whole construction of the piano is simplified and cheapened.

What I claim as my invention, and desire to secure by Letters Patent, is--

The location of the action inverted in the contracted space front beneath the keys in the manner described.

M. VERGNES.

Witnesses:

WM. H. RIBLET,  
BEN. G. WARREN.