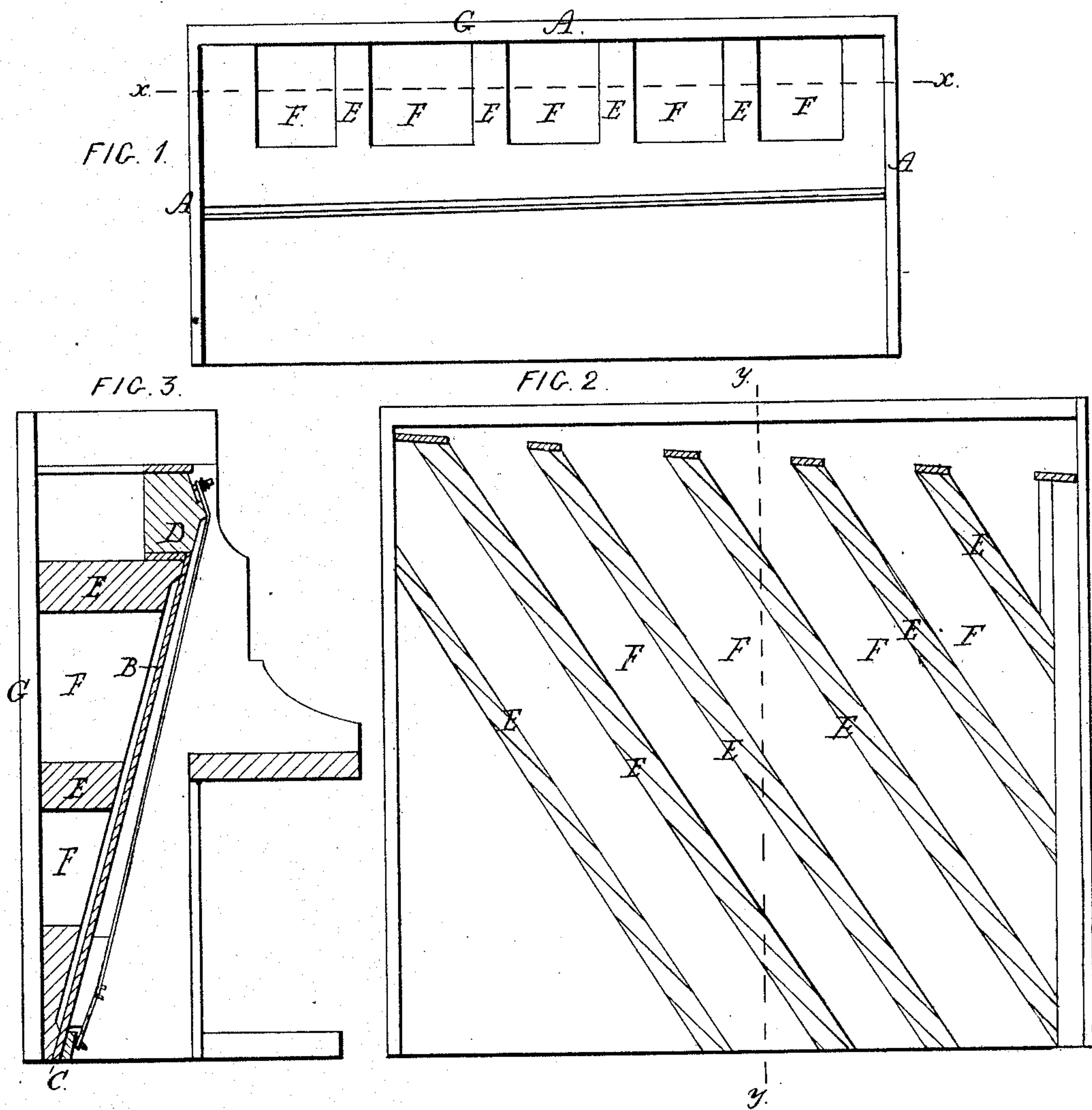


B. E. COLLEY.
Upright Pianoforte.

No. 163,745.

Patented May 25, 1875.



WITNESSES.

Saml. Despain
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UNITED STATES PATENT OFFICE.

BENJAMIN E. COLLEY, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN UPRIGHT PIANO-FORTES.

Specification forming part of Letters Patent No. **163,745**, dated May 25, 1875; application filed August 18, 1874.

To all whom it may concern:

Be it known that I, BENJAMIN E. COLLEY, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Upright Piano-Fortes, of which the following is a specification:

This invention consists in the arrangement or location of the sounding-board within the upright piano-forte case at an angle of inclination to the height of the case, whereby, in a given height of the case, a string of greater length can be used than would be possible in the same height of case were the sounding-board arranged in a direct vertical line, and in such proximity to the casing and the back-board as to form a series of passages which lead directly from the lower end to the upper end of the piano-forte case, where they are left open, so as to secure the escape of the sound at the top of the instrument.

In the accompanying plate of drawings my improvement in upright piano-fortes is illustrated, Figure 1 being a plan view of an upright piano-forte case embracing my invention; Fig. 2, a vertical sectional view along line *xx*, Fig. 1; and Fig. 3, a vertical section along *y*, Fig. 2.

In the drawings, A represents the case of an upright piano-forte, in which a sounding-board, B, is located and secured. This sounding-board is arranged and stands in a vertical inclined direction, running from a point at the bottom C, and near the back of the case, to a point at the top D, near the front line or face

of the case. This inclination of the board B enables a longer length of string to be used than would be possible were the board in a direct vertical line, as has always been the mode of locating the board as heretofore practiced. Back of, and within and between, the supports E, back of the sounding-board, are a series of passages, F, which run directly from the lower end to the upper end of the case, and are closed at the back of the case by a back-board, G. These passages secure the escape of the sound at the top of the instrument—an important advantage. By an inclination of the sounding-board, such as has been herein described, the hammers of the action being located to correspond therewith, are then situated so that in the operation of the action their return is insured.

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

The combination, in an upright piano, of the inclined sounding-board B and a series of passages, F, leading from the lower end to the upper end of the piano-case, substantially as herein shown and described.

The above specification of my invention signed by me this 26th day of June, A. D. 1874.

B. E. COLLEY.

Witnesses:

EDWIN W. BROWN,
GEO. H. EARL.