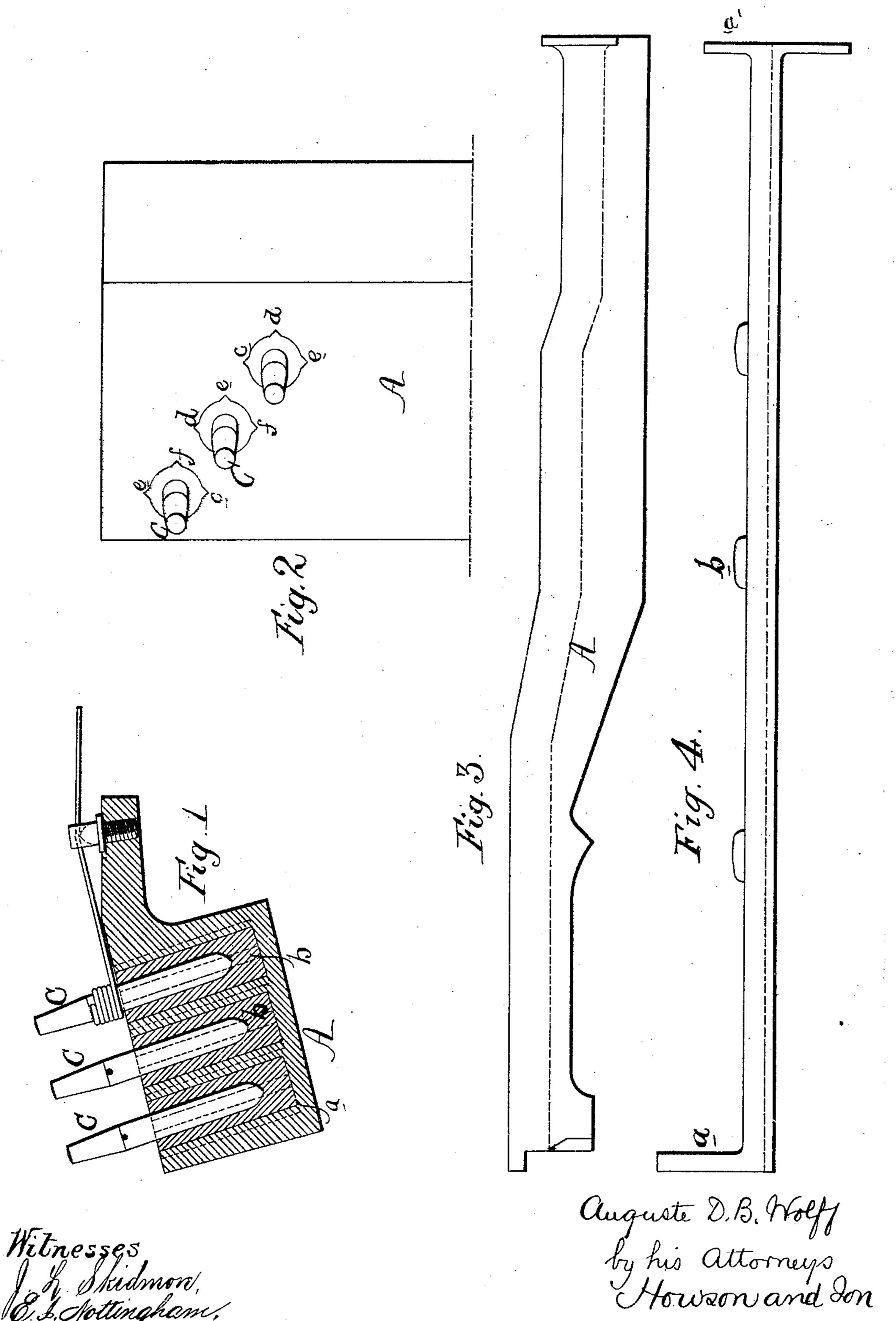
## A. D. B. WOLFF. PIANO FRAMES.

No. 174,884.

Patented March 14, 1876.



## UNITED STATES PATENT OFFICE.

AUGUSTE DÉSIRÉ BERNARD WOLFF, OF PARIS, FRANCE.

## IMPROVEMENT IN PIANO-FRAMES.

Specification forming part of Letters Patent No. 174,884, dated March 14, 1876; application filed December 23, 1875.

To all whom it may concern:

Be it known that I, Auguste Désiré Ber-NARD Wolff, of Paris, France, have invented certain Improvements in Piano-Fortes, of which the following is a specification:

The object of my invention is to so construct the string-frame of a piano that the tuning-pins will be firmly secured, and the tone of the piano consequently maintained; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a transverse section, showing the mode of fastening the tuning pegs or pins; Fig. 2, a corresponding plan; and Figs. 3 and 4, a side view and plan, respectively, of a string-

frame for an upright piano.

The frame is made of metal, and in the portion A of this metal frame, at intervals corresponding to the positions the tuning-pins are to occupy, are a number of cylindrical holes, a, in which are cut longitudinal grooves c d e f, as shown in Fig. 2. Into each of these holes is driven a peg, b, of hard wood, of corresponding shape, but slightly larger in diameter, so that it may fit perfectly tight, this peg being prevented from any accidental turn-

ing by the grooves c d e f, into which project corresponding ribs on the wood. The surface of the wood being trued, a hole is bored into the center of each peg, as usual, for the reception of the tuning-pin C. In order that the wires may have the proper bearing on the agraffe-pins, the frame itself is bent or inclined, as shown in Fig. 1.

It will be evident that by the above mode of construction the tuning-pins are firmly secured, and not liable to get out of position, and the tones of the wires consequently pre-

served.

I claim as my invention—

The metal frame A, having openings a, grooved longitudinally, and filled with wood, for the reception of the tuning-pins, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUSTE DESIRE BERNARD WOLFF.

Witnesses:

ALFRED COINY, ROBT. M. HOOPER.