(No Model.)

G. STECK.

PIANO.

No. 491,607. Patented Feb. 14, 1893.

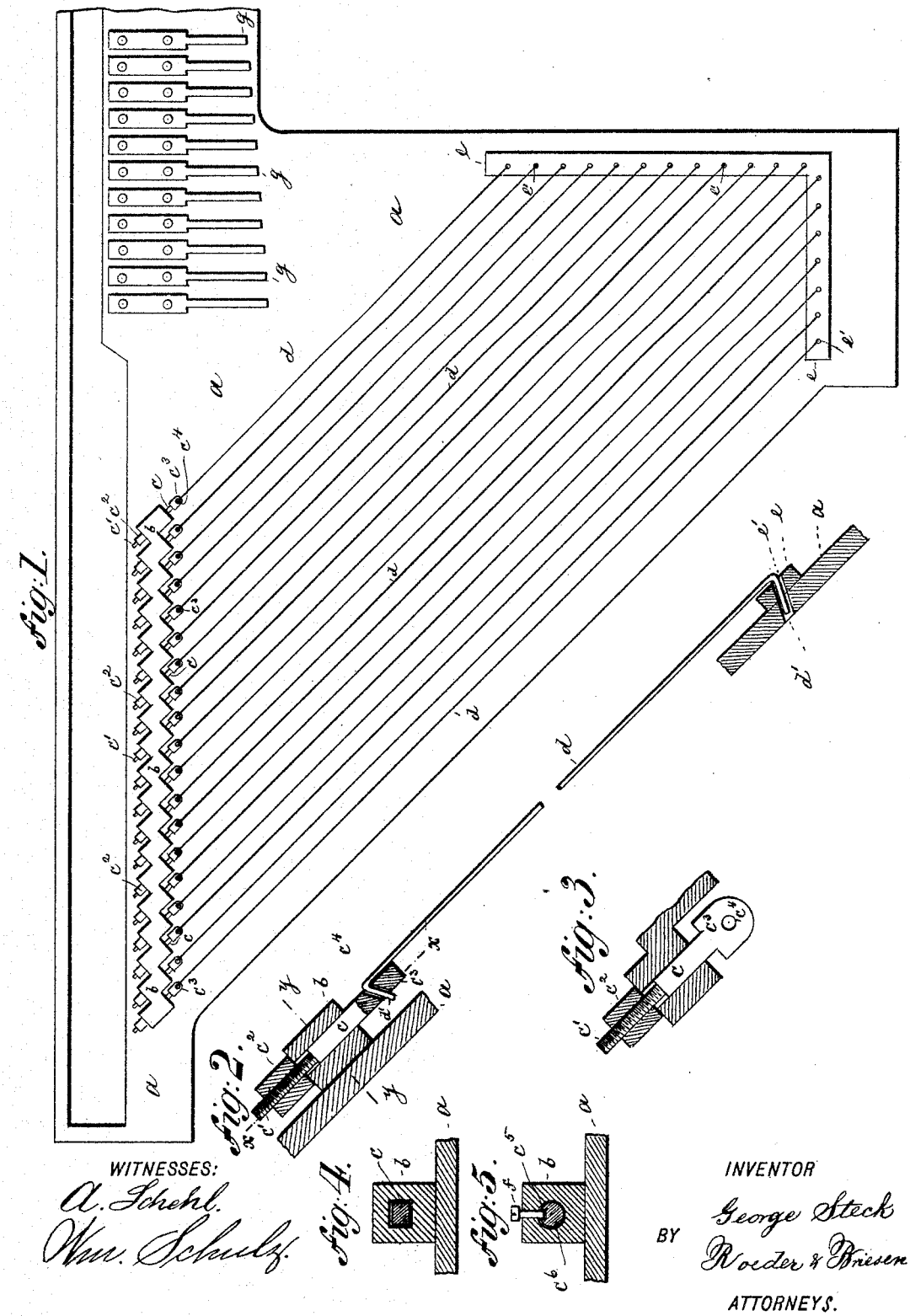

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

WITNESSES:
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PIANO.

SPECIFICATION forming part of Letters Patent No. 491,607, dated February 14, 1893.

Application filed June 18, 1892. Serial No. 437,164. (No model.)

To all whom it may concern:

Be it known that I, GEORGE STECK, of New York city, New York, have invented an Improved Piano, of which the following is a specification.

This invention relates to an improvement in stringless pianos and more particularly to the mode of securing the vibrating rods to the back plate, so that they may be readily attached and that they may be tuned without twisting.

The invention consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings: Figure 1 is an elevation of the back plate of an upright piano provided with my improvement. Fig. 2 a longitudinal section thereof taken parallel to the sounding rods. Fig. 3 a section on line x, x, Fig. 2. Fig. 4 a section on line y, y, Fig. 2 and Fig. 5 a similar section of a modification.

The letter a represents a metal plate adapted to be set into a piano and designed to carry the sound producing rods.

b, is a step-shaped ledge or rail provided with a series of perforations which are of square or angular shape in cross section (Fig. 4). Within each perforation there moves a slide c, which is of corresponding square shape, so that it cannot turn. At its rear, the slide c, terminates in a screw shank c', surrounded by a nut c^2, that bears against the upper edge of the step shaped ledge b, each step forming the seat for one of the nuts. At its lower end the slide c, carries an enlargement or head c^3, that limits the motion of the slide and is provided with a perforation c^4. This perforation is engaged by the upper hook shaped end d', of the vibrating or sound producing metal rod d. The lower hook shaped end d', of this rod is received by one of the perforations e', of a plain rail or ledge e, placed opposite the rail b. The two hooked ends d' of the rod d, should be slightly bent inward (Fig. 2) so that the rod is firmly held in place without injury to its pitch and so that the natural spring of the rod will not throw it out of its seat.

In order to tune the instrument, the nuts c^2, are turned to move the slide c, in or out and to thus put the metal rods d, under the proper tension. In this way the rods are tuned without being twisted. To remove or change the rods, it is only necessary to move the slide inward to relax the tension, and then the bent ends of the rods may be readily lifted out of their seats.

In Fig. 5, the slide c^6, is made of round form in cross section and provided with a groove c^5, that is entered by a screw f, passing through a tapped opening of the rail b. This construction, of course, also prevents the slide from turning.

The short spring plates g, shown in Fig. 1, are designed for the production of the higher notes and form no part of the present invention.

What I claim is:

1. In a stringless piano, the combination of a perforated rail with a perforated slide and with a sound producing rod having a hook shaped end that engages the slide, substantially as specified.

2. In a stringless piano, the combination of a perforated rail with a perforated slide and with a sound producing rod having an inwardly bent hook shaped end that engages the slide, substantially as specified.

GEORGE STECK.

Witnesses:
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