

(No Model.)

L. W. BLASIUS.
PIANO.

No. 423,510.

Patented Mar. 18, 1890.

FIG. 1.

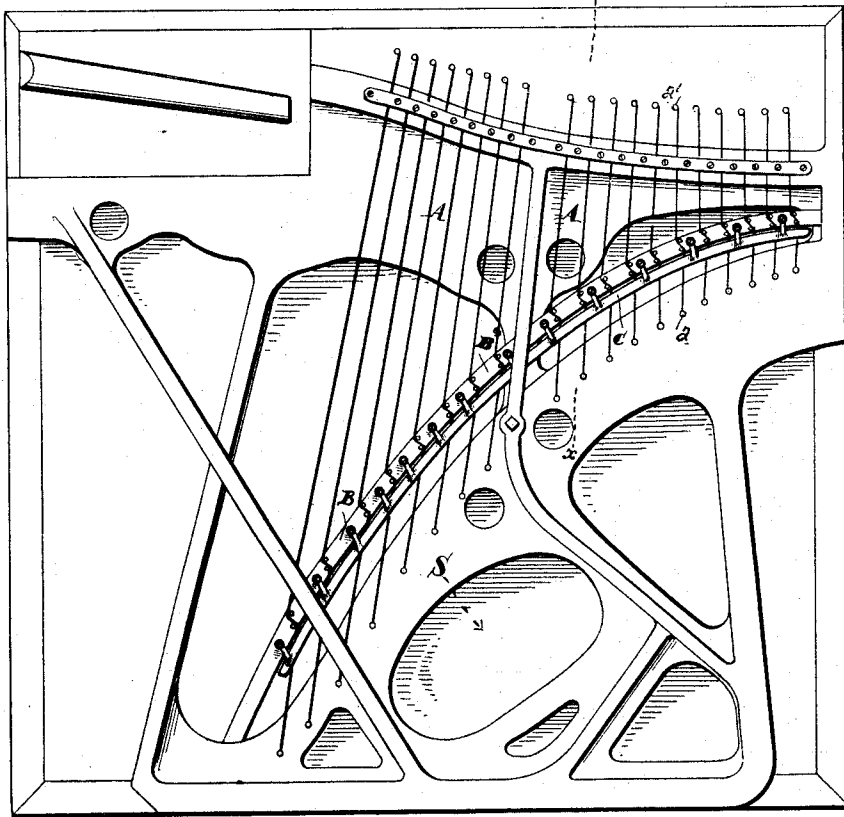


FIG. 2.

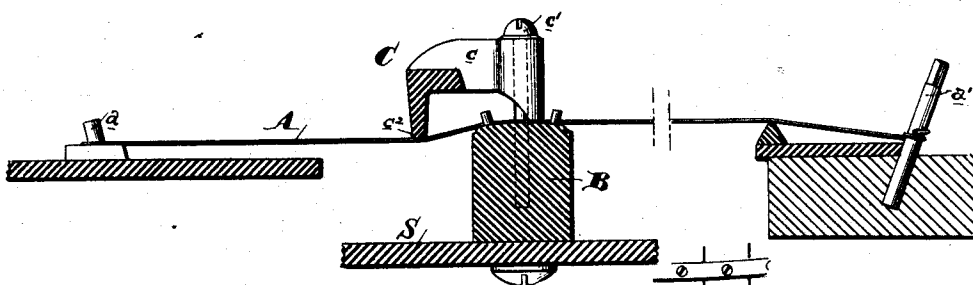


FIG. 3.

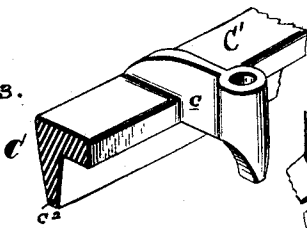
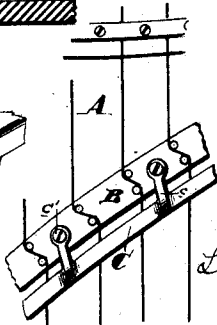


FIG. 4.



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SPECIFICATION forming part of Letters Patent No. 423,510, dated March 18, 1890.

Application filed February 20, 1889. Serial No. 300,584. (No model.)

To all whom it may concern:

Be it known that I, LEVIN W. BLASIUS, a citizen of the United States, and a resident of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Pianos, of which the following is a true and exact description, due reference being had to the drawings which accompany and form part of this specification, and in which similar letters denote similar parts.

In pianos as ordinarily constructed the wire (the striking of which by the hammer causes the sound) passes over the sounding-board bridge. This sounding-board bridge rests on the sounding-board. The wire is secured so that it is in tension and exerts a pressure upon the sounding-board bridge, which causes the sound to be transferred to the sounding-board. It is necessary that this pressure shall be exerted upon the sounding-board bridge in order that the tone of the piano may be preserved. The pressure exerted by the wire upon the sounding-board bridge is considerable, and it is necessary to stiffen the bridge-support. When the piano has been in use, the sounding-board bridge sinks and falls below its proper position, so that when the wire is tightened to tune the piano it fails to exert the desired pressure upon the sounding-board bridge and the piano loses its tone. When the piano is constructed, the top of the sounding-board bridge, over which the wires pass, is elevated above the point where the wires are secured, so that the wires will exert the pressure upon the sounding-board bridge, as hereinbefore described.

My invention relates to an improved device which, being connected to the sounding-board bridge and resting on the wires, enables the tension on the wires to be increased and tends to prevent the sounding-board bridge from sinking and elevates the bridge to its normal position when the wires are tightened in tuning the piano.

In the drawings, Figure 1 represents a plan view of a portion of an upright piano. Fig. 2 is a section on line *xx*, Fig. 1. Fig. 3 is a detail perspective view of my improved device; Fig. 4, an enlarged plan view of portion Fig. 1.

A A represent the wires of the piano se-

cured at one end to the hitching-pin and at the other end to the tuning-pin *a'*.

S is the sounding-board.

B is the sounding-board bridge.

C is my improved device, which I will call an "acoustic tone-regulator." The projection *c* of the tone-regulator C rests on the bridge, and a screw *c'* passes through this projection of the tone-regulator into the bridge, thus securing it firmly to the sounding-board bridge. The main portion C' of the tone-regulator is constructed as shown, Fig. 3, and its narrow lower surface or edge *c''* rests on the strings A. This device is constructed of metal, preferably of the form shown, Fig. 3.

The wires are secured to the hitching-pins *a* and to the tuning-pins *a'* and pass over the sounding-board bridge, and the wire is put into tension by turning the pin *a'* in the ordinary manner.

My improved acoustic tone-regulator is secured to the sounding-board bridge as hereinbefore described, the surface or edge *c''* resting on the wires. If the screw *c'* be tightened, it will cause an increase of tension upon the wire and increased pressure upon the sounding-board bridge, and the tone of the piano may thus be adjusted. If the sounding-board bridge should tend to sink, as it does in a piano as ordinarily constructed, the wire will tend to prevent the surface *c''* of the tone-regulator falling, and the tone-regulator being connected to the sounding-board bridge through the screw *c'*, as hereinbefore described, the sinking of the sounding-board bridge will be resisted by the wire. When the piano is tuned, the wire will press against the surface *c''*, elevating it, and through the screw drawing the sounding-board bridge upward. Thus, with the addition of my acoustic tone-regulator, the sounding-board bridge will never sink, so that the pressure of the wire upon it will be decreased sufficiently to lessen or destroy the tone of the instrument, and also the wire can be adjusted to the desired tension with great accuracy and the sounding-board bridge brought to a proper position.

I have illustrated and described my improvement as used in an upright piano; but it is obvious that it can be used in a grand or square piano with the same advantage without deviating from my invention.

I have shown my acoustic tone-regulator connected to the sounding-board bridge by a screw; but I can use a bolt or other suitable fastening device in place of the screw.

5 Having now fully described my invention, what I claim, and desire to protect by Letters Patent, is—

1. In a piano, the combination of the sounding-board bridge, a series of wires which pass
10 over and rest upon said bridge, and an acoustic tone-regulator which is secured to said bridge and rests upon said strings at a point between said bridge and the hitch-pin.

2. In a piano, the combination of the sounding-board bridge, a series of wires which pass
15 over and rest upon said bridge, and an acoustic tone-regulator which is adjustably secured to said bridge and rests upon said strings at a point between said bridge and the hitch-pin.

20 3. In a piano, the combination of the sounding-board bridge, a series of wires which pass over and rest upon said bridge, and an acoustic tone-regulator which is secured to said bridge and rests upon said strings at a point
25 lower than the top of said bridge.

4. In a piano, the combination of the sounding-board bridge, a series of wires which pass over and rest upon said bridge, and an acoustic

tic tone-regulator which is adjustably secured to said bridge and rests upon said strings at
30 a point lower than the top of said bridge.

5. In a piano, the combination of the sounding-board bridge, a series of wires which pass over said bridge, and an acoustic tone-regulator provided with a main portion which
35 has a lower edge or surface which rests upon said wires and projections from the main portion of said acoustic tone-regulator, said projections being secured to the bridge.

6. In a piano, the combination of the sounding-board bridge, a series of wires which pass over said bridge, and an acoustic tone-regulator provided with a main portion which has
40 a lower edge or surface which rests upon said wires and projections from the main portion
45 of said acoustic tone-regulator, said projections being adjustably secured to the bridge.

In testimony of which invention I have hereunto set my hand, at Philadelphia, Pennsylvania, this 15th day of February, A. D. 50
1889.

LEVIN W. BLASIUS.

Witnesses:

BUTLER KENNER HARDING,
ABNER J. DAVIS.