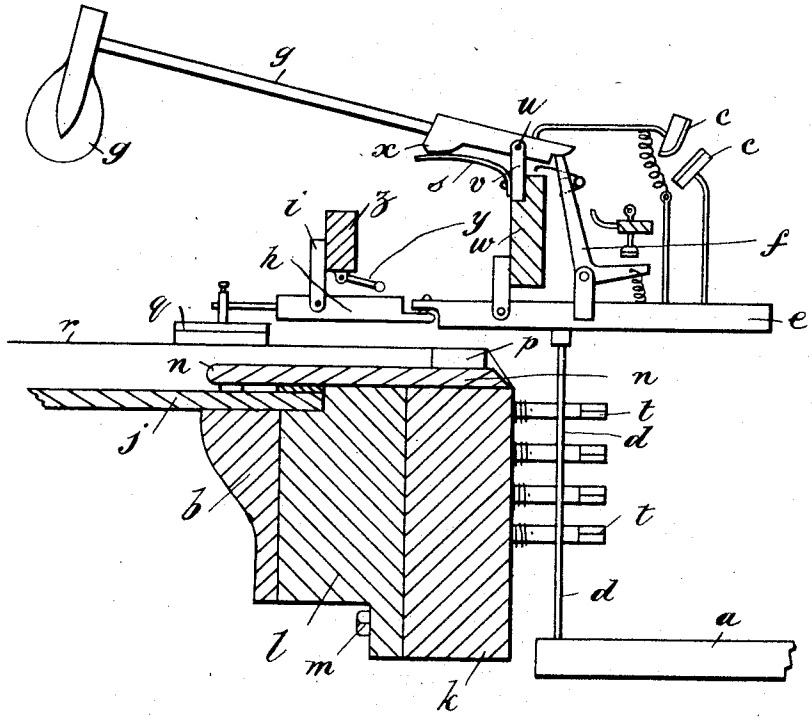
No. 666,138. Patented Jan. 15, 1901.

C. R. S. J. HALLÉ.

PIANOFORTE.

(Application filed Aug. 14, 1900.)

(No Model.)



Witnesses
W. B. Keeler
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atty

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UNITED STATES PATENT OFFICE.

CLIFFORD ROBERT STEPHEN JOHN HALLÉ, OF LONDON, ENGLAND.

PIANOFORTE.

SPECIFICATION forming part of Letters Patent No. 666,138, dated January 15, 1901.

Application filed August 14, 1900. Serial No. 26,892. (No model.)

To all whom it may concern:

Be it known that I, CLIFFORD ROBERT STEPHEN JOHN HALLÉ, a subject of the Queen of Great Britain, residing at 50 Lincoln's Inn Fields, London, England, have invented certain new and useful Improvements in or Connected with Pianofortes, of which the following is a specification.

The object of my invention is to provide a means by which grand or horizontal pianofortes may be provided with down-striking actions and the arrangements for tuning may be of the simplest kind, while the bars of resistance shall be underneath the sound-board instead of over, thereby insuring a better and more even tone and a larger amount of sound-board under the treble part of the bridge.

The accompanying drawing will readily explain my invention.

The wrest-plank *k* is at right angles to the sound-board *j*.

b is the end of one of the iron resistance-bars of the frame.

m is one of the bolts by which the wrest-plank is fixed to the bar *l*.

n is a strong plate of iron or plank of wood upon which the bridge *p* is fixed. This plate or plank is supported on bearing-blocks fastened between the same and the bar *l* onto the back of the wrest-plank, and these blocks also offer support to the sound-board *j*. The tuning-pins *t t* pass out between the prolong-wires *d*, which connect the end of the key *a* with the lever *e*, which has the hopper *f* centered onto it.

The hammer *g* is pivoted at *u* to a piece *v*, projecting from a bar *w*, to which the spring *s* is fixed for supporting the hammer at the stock *x*. The lever *e* is also in connection with the horizontal damper-lever *h*, this being pivoted to an extension *i* of the bar *z*, a pivoted bar *y* being pivoted to the bar *z* for operation on the damper-lever *h* to lift the damper *q* from the string *r* for the loud-pedal.

c represents the usual checks arranged upon wires.

Other actions may be employed, those shown serving only as an elevation for connecting same with my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a piano, a wrest-plank at right angles to the sound-board of the piano, a down-striking action, wires connecting the action to the keys, and tuning-pins extending between the said wires and parallel with the said keys.

2. In a piano, a sound-board above the resistance-bars thereof, a wrest-plank mounted at right angles to said board, a down-striking action, wires connecting the action to the keys, and tuning-pins extending between the said wires and parallel with the said keys.

3. In a piano, a down-striking action connected by prolong-wires to the keys thereof, and a wrest-plank mounted at right angles to the sound-board of the piano and provided with tuning-pins extending between the said wires to permit of tuning the piano from the front thereof.

4. In a piano, a down-striking action connected by prolong-wires to the keys thereof, a sound-board mounted above the resistance-bars, and a wrest-plank at right angles to the said board and provided with tuning-pins extending between the said wires and parallel with said keys.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLIFFORD ROBERT STEPHEN JOHN HALLÉ.

Witnesses:
EDMUND S. SNEWIN,
WM. O. BROWN.