

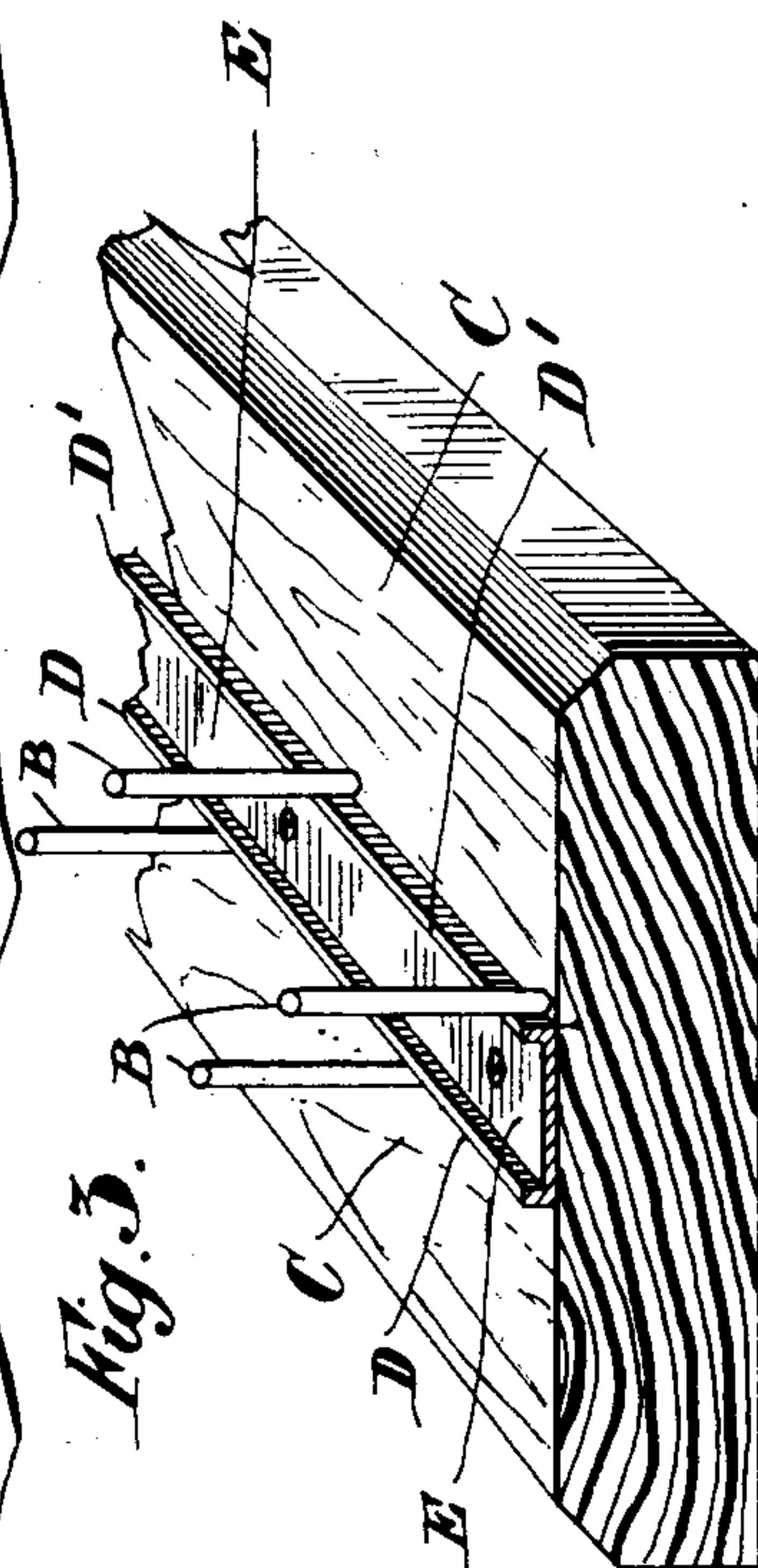
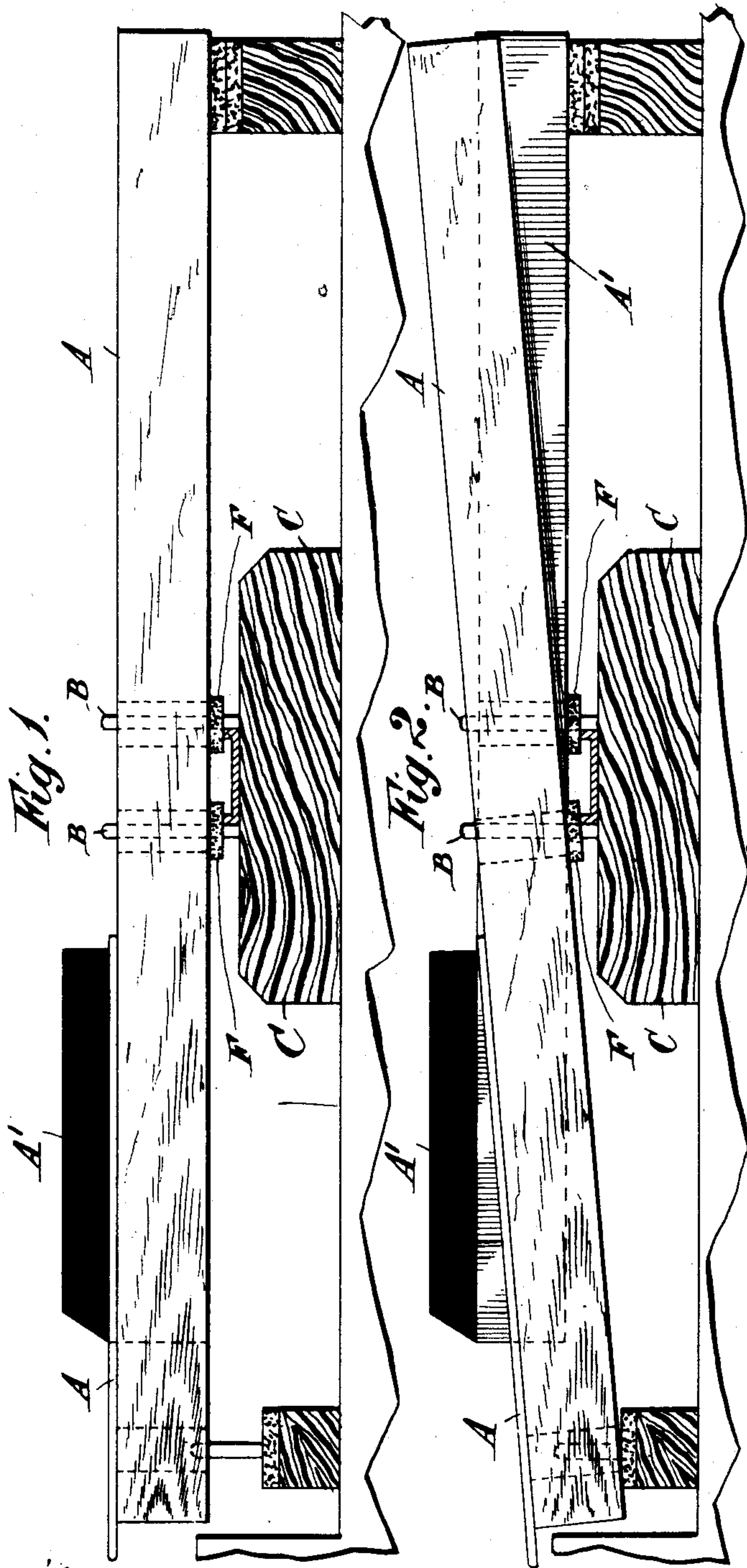
No. 682,065.

Patented Sept. 3, 1901.

C. R. S. J. HALLÉ.  
KEY FOR PIANOFORTES.

(Application filed Feb. 11, 1901.)

(No Model.)



Witnesses:  
Exot. Sullivan.  
Robert Courtt.

Inventor:  
Clifford R. S. J. Hallé.  
By James L. Norris.  
Att'y.



# UNITED STATES PATENT OFFICE.

CLIFFORD ROBERT STEPHEN JOHN HALLÉ, OF LONDON, ENGLAND.

## KEY FOR PIANOFORTES.

SPECIFICATION forming part of Letters Patent No. 682,065, dated September 3, 1901.

Application filed February 11, 1901. Serial No. 46,893. (No model.)

*To all whom it may concern:*

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

10 This invention relates to means of pivoting the key-levers upon true balancing fulcrums or the like in order to impart delicacy of touch to the keys.

My invention will be understood by the following description aided by the annexed drawings, in which—

Figure 1 is a side elevation of two keys and their appurtenances and showing the gutter-shaped appliance with balancing edges, one for each alternate key, the keys being in their normal position. Fig. 2 is a similar view to Fig. 1, but showing one of the keys in the depressed condition. Fig. 3 is a perspective elevation of a portion of the pivot-rail, showing the gutter-shaped strip with the balancing edges and the position it occupies within the usual pivoting-pins.

For the purpose of my invention the key-levers A A' work upon guide-pins B, fixed to the pivot-rail C in the usual manner; but the key-levers rest upon true balancing edges D D', placed on or in the pivot-rail C at the back, the front, or between the pins B. These balancing edges D D' are preferably formed by the turned-up edges of a gutter or channel shaped strip E, of zinc or other metal, extending the whole width of the keyboard, one edge, D, serving for the naturals A and the other, D', for the sharps or flats A'. The levers are caused to rest upon one edge and pivot upon the other edge by the interposition of a small piece of cloth or leather washer F, placed under each key-lever. This will be found sufficient for such purpose.

45 Other methods of forming the balancing edges may be employed, such as by embedding strips of metal or wood edgewise in the pivot-rail, or separate and independent pieces

may be fixed under each key-lever, or the guide-pins may be formed with shoulders for the key-levers to bear and balance upon similar in manner to a scale-beam.

By this invention of balancing the keys upon the turned-up edges D D' of a gutter-shaped bar E and fixing such bar E between the pivoting-pins B B of the pivot-bar C a delicacy of touch is insured of a character much in advance of any pianoforte hitherto constructed.

The felt pads F preferably encircle each pin B, so as to afford a cushion for the keys on the true balancing edges D D'.

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

1. In a pianoforte, a pivot-rail and a gutter-shaped strip mounted thereon and bent to form a pair of parallel balancing edges for the piano-keys.

2. In a pianoforte, the combination with the pivot-rail thereof, of guide-pins mounted thereon and adapted to extend through the piano-keys, and means arranged between the said pins upon the said rail and provided with a pair of balancing edges for the said keys.

3. In a pianoforte, the combination with the pivot-rail thereof, of the guide-pins mounted thereon and adapted to engage the piano-keys, means arranged between said pins upon the said rail and provided with a pair of balancing edges for the piano-keys, and means interposed between the piano-keys and said edges and mounted upon said pins for causing the piano-keys to rest and pivot upon one of said edges.

4. In a pianoforte, guide-pins for the piano-keys, a strip provided with a pair of balancing edges for the said keys, and means for supporting said pins and strip.

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

CLIFFORD ROBERT STEPHEN JOHN HALLÉ.

Witnesses:

WM. O. BROWN,

IRENEO FRANCO. VELHO.