

E. BORNHOEFT.  
PIANO PEDAL ACTION.  
APPLICATION FILED JAN. 3, 1905.

Fig. 1.

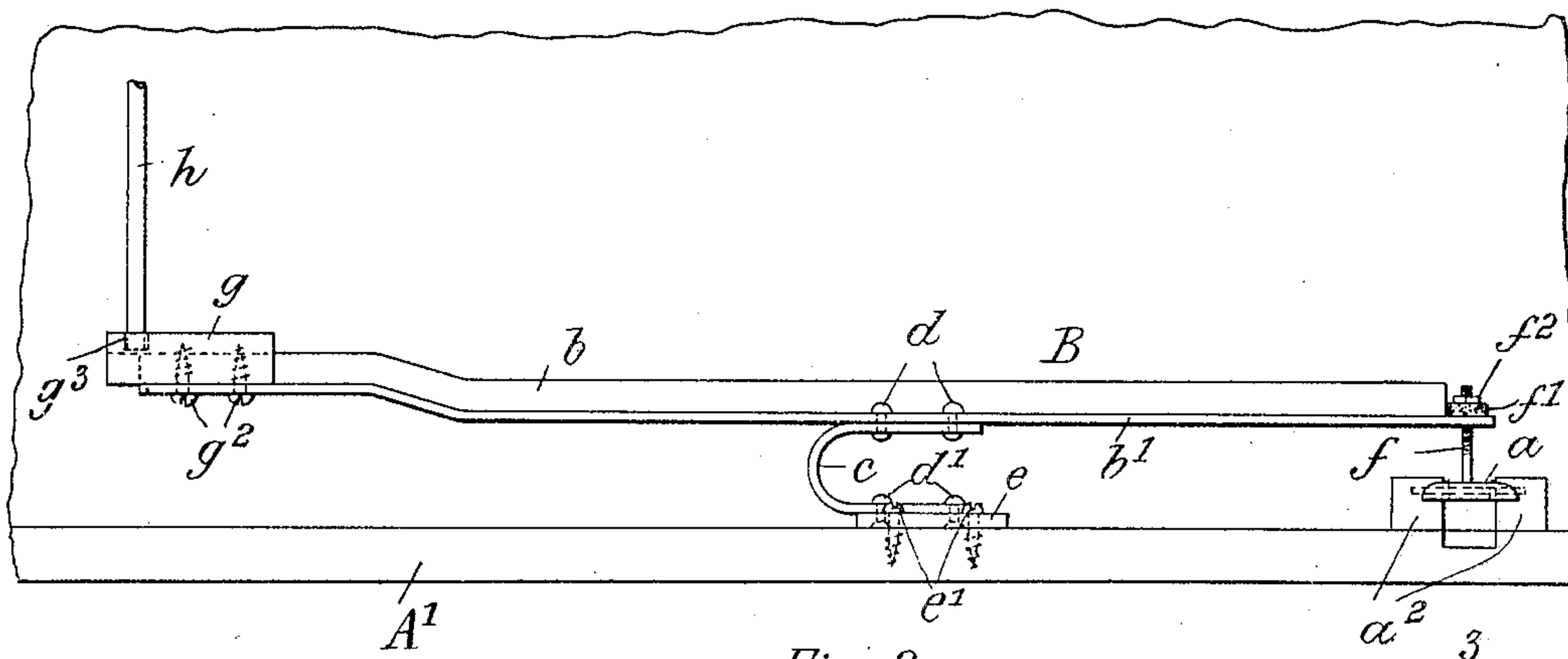


Fig. 2.

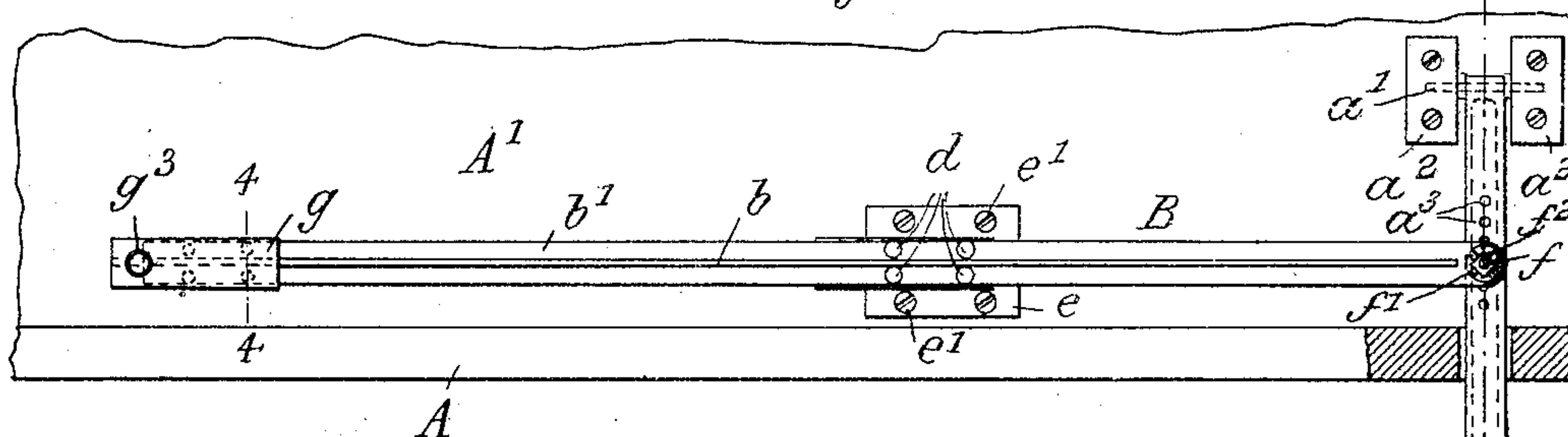


Fig. 3.

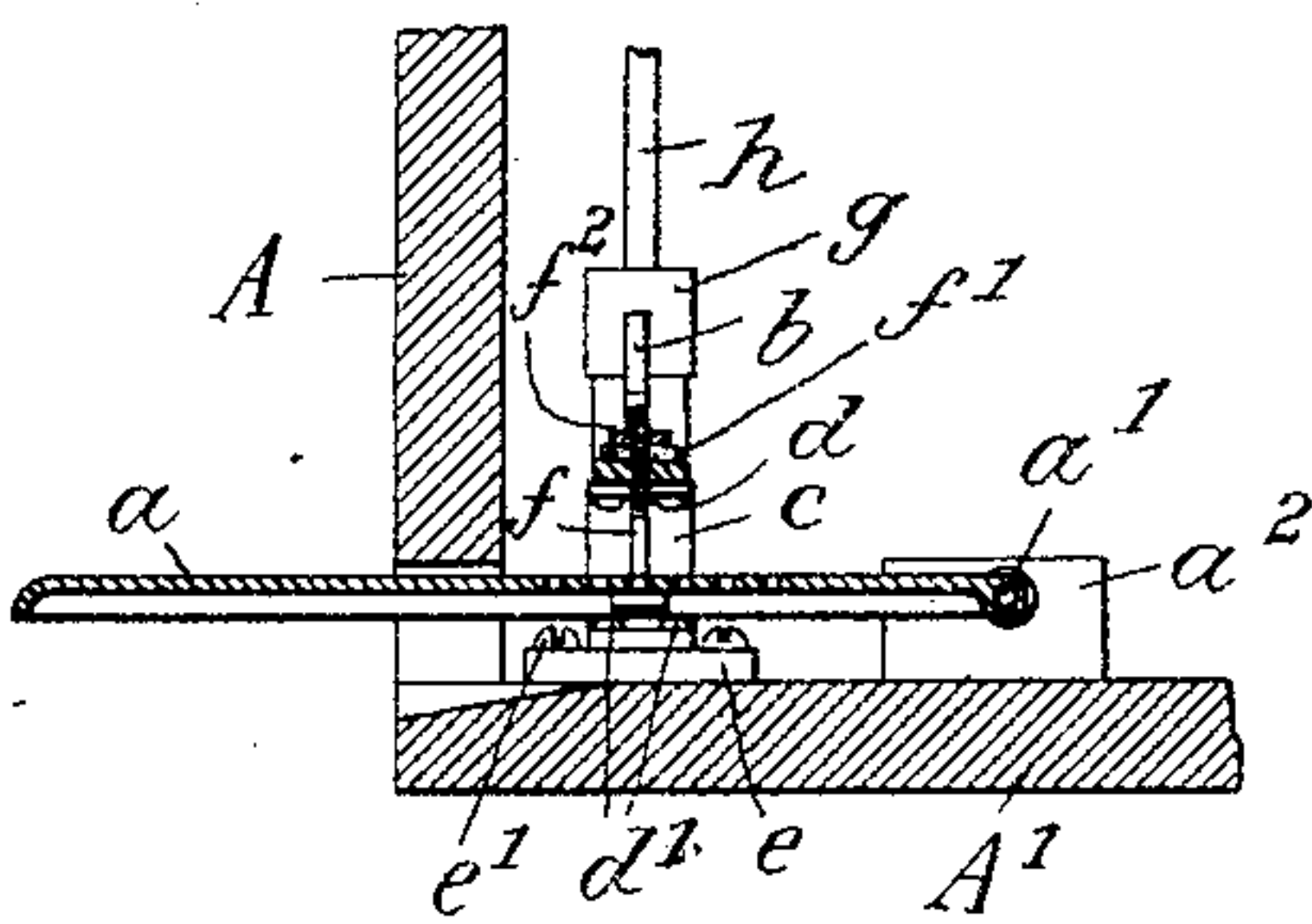
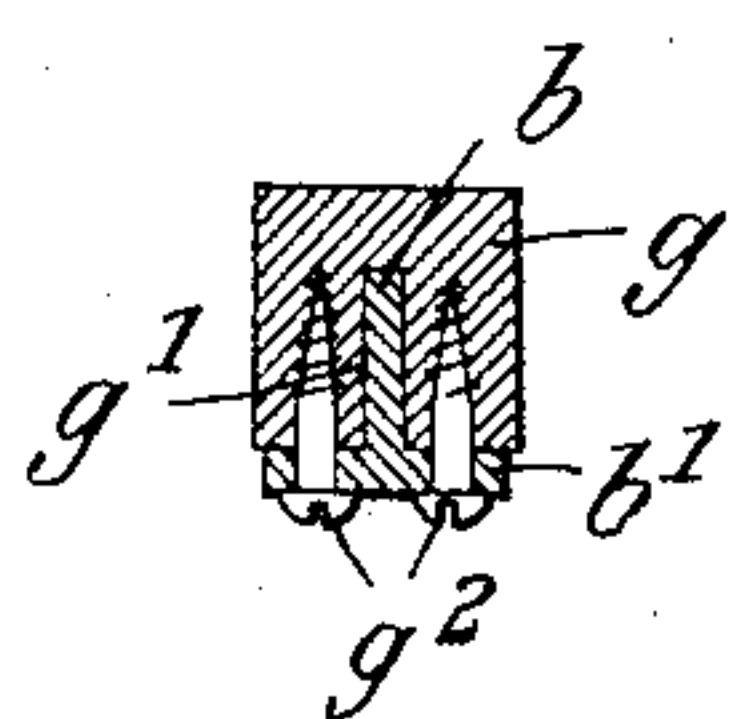


Fig. 4.



Witnesses:

A. J. J. J.  
William Schutz.

Inventor:

Edward Bornhoeft  
by Jacob V. Briesen Att'y.

# UNITED STATES PATENT OFFICE.

EDWARD BORNHOEFT, OF NEW YORK, N. Y.

## PIANO PEDAL-ACTION.

SPECIFICATION forming part of Letters Patent No. 785,706, dated March 28, 1905.

Application filed January 3, 1905. Serial No. 239,288.

*To all whom it may concern:*

Be it known that I, EDWARD BORNHOEFT, a citizen of the United States, residing at New York city, Bronx, county and State of New York, have invented new and useful Improvements in Piano Pedal-Actions, of which the following is a specification.

This invention relates to a piano pedal-action which is of simple construction and combines lightness with great durability.

In the accompanying drawings, Figure 1 is a front view of my improved piano pedal-action. Fig. 2 is a plan thereof with the piano-case partly in section; Fig. 3, a cross-section on line 3 3, Fig. 2; and Fig. 4, an enlarged cross-section on line 4 4, Fig. 2.

The letter A represents the front of the piano-case, and A' is the bottom thereof. The pedal *a* is fulcrumed by pivot *a'* to bearing-blocks *a''*, fastened to the bottom A'. The pedal-lever B is made of metal and is of T shape in cross-section, with its web *b* projecting upwardly from its base *b'*. The lever B is supported upon a horizontally-mounted U-shaped spring *c*, the two shanks of which extend one above another in a horizontal direction, while its upright curved body portion constitutes the fulcrum for the lever. The upper shank of the spring is connected to the lever by means of rivets *d*, that engage the base *b'* at each side of the web *b*. The lower shank of the spring is riveted at *d'* to a base-plate *e*, attached to bottom A' at *e'*. At one end of the lever its base *b'* projects beyond the web *b* and is here perforated for the reception of a bolt *f*, which also engages one of a series of perforations *a''* of pedal *a*. The bolt is headed at its lower end, while its shank carries at its upper threaded end a washer *f'* and nut *f''*, by which the distance between pedal and lever may be regulated. Upon the end oppo-

site to the pedal *a* there is mounted upon lever B a block *g*, that rests upon the base *b'* and has a longitudinal groove *g'* for straddling the web *b*. In this way the block is securely held to the lever, to which it is further attached by screws *g''*, engaging the base *b'* at both sides of the web *b*. A mortise *g'''* in the top of block *g* receives the lower end of the lifter-rod *h*.

In operation a depression of the pedal will cause the curved body portion of spring *c* to be so bent that the upper spring-shank will converge toward the lower shank. Thus the lever will be tilted to operate the lifter-rod. Upon a release of the pedal the spring-shanks will resume their parallelism, so that the lever and pedal are returned to their normal position.

By the employment of a U-shaped spring for supporting the lever a strong resilient fulcrum, free from all sharp angles which are liable to break during the operation of the device, is provided. The T shape of the lever insures strength combined with lightness and facilitates the proper mounting of the lever upon the spring.

What I claim is—

In a piano pedal-action, the combination of a pedal with a lever T-shaped in cross-section and operatively connected thereto, a horizontally-placed U-shaped spring, means for connecting the upper spring-shank to the lever, a grooved block straddling the lever, and a lifter-rod engaging said block, substantially as specified.

Signed by me at New York city, Manhattan, New York, this 31st day of December, 1904.

EDWARD BORNHOEFT.

Witnesses:

FRANK V. BRIESEN,  
FRED UNFRICHT.