

G. W. WESER.
PEDAL LOCK FOR PIANOFORTES.

No. 561,149.

Patented June 2, 1896.

FIG. 1.

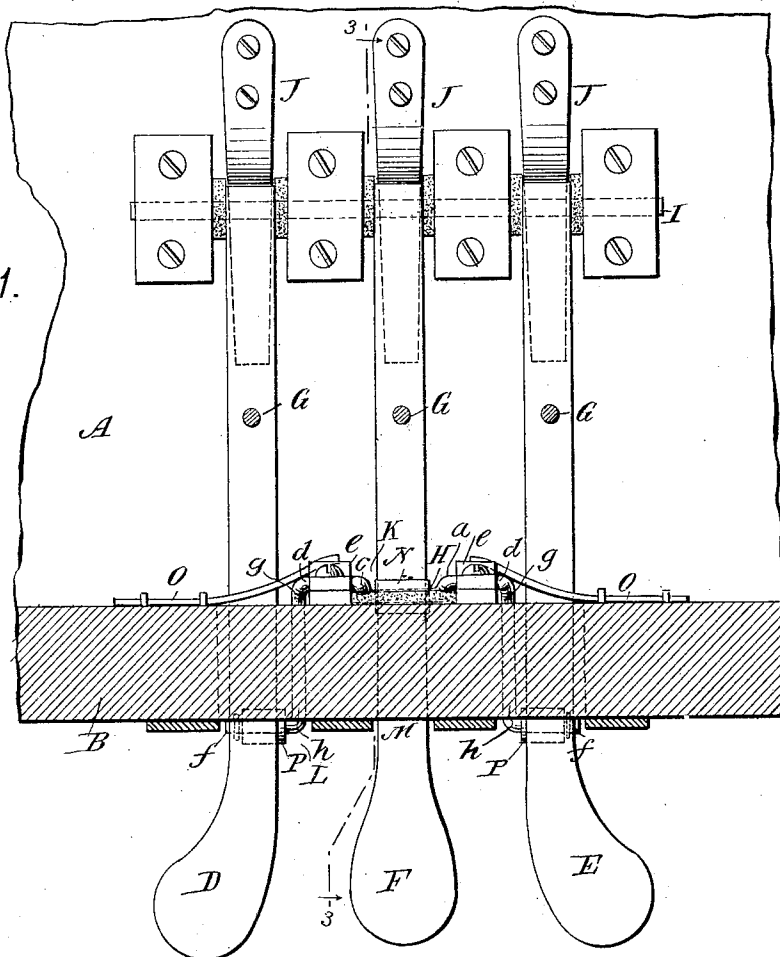
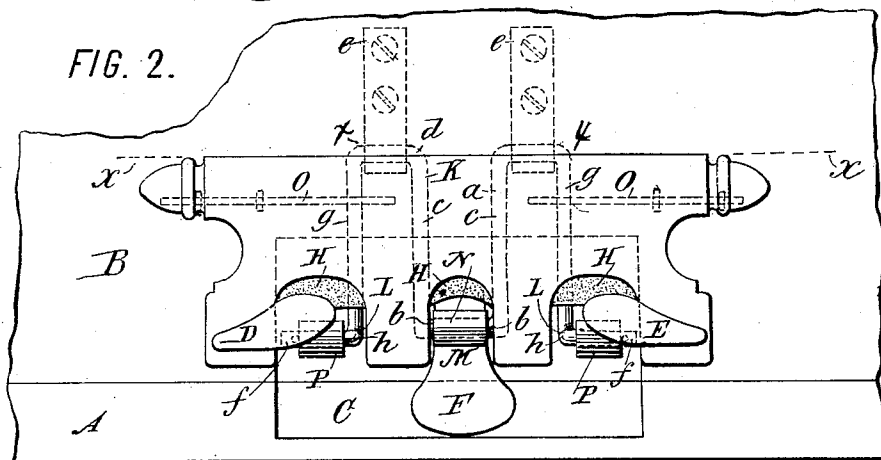


FIG. 2.



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FIG. 4.

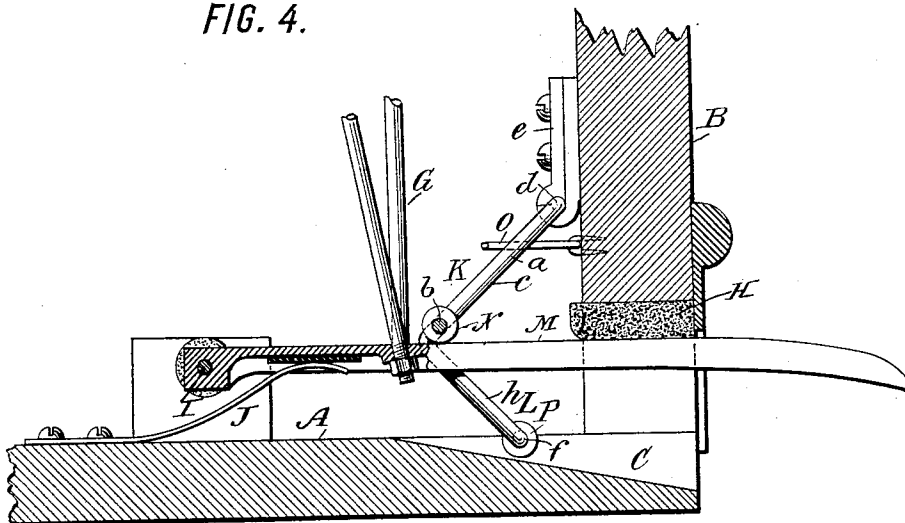
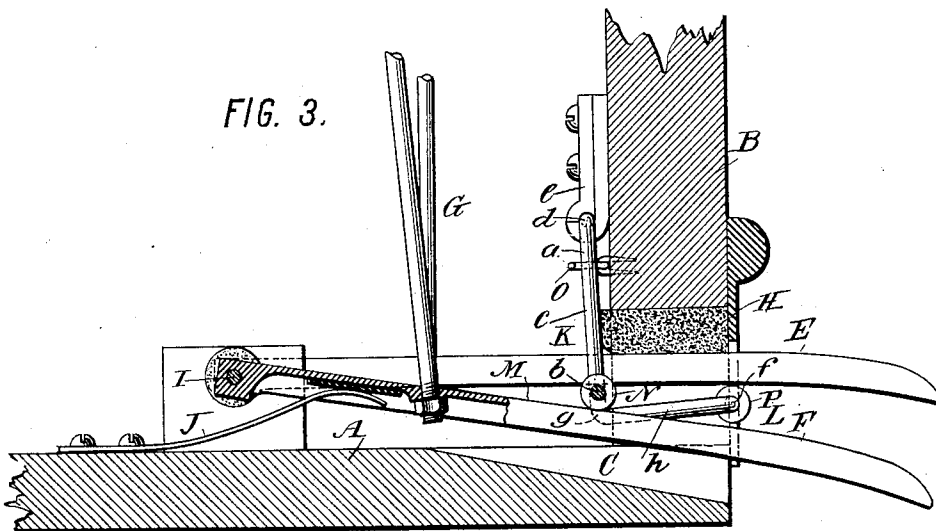


FIG. 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. WESER, OF NEW YORK, N. Y.

PEDAL-LOCK FOR PIANOFORTES.

SPECIFICATION forming part of Letters Patent No. 561,149, dated June 2, 1896.

Application filed February 23, 1895. Serial No. 539,346. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WESER, a citizen of the United States, residing in the city, county, and State of New York, have
5 invented certain new and useful Improvements in Pedal-Locks for Pianofortes, of which the following is a specification.

This invention relates to pedal-locks for pianofortes and analogous musical instruments and aims to provide an improved lock
10 for this purpose.

Heretofore in pianofortes, and particularly in those having a third or muffler pedal in addition to the usual forte and pianissimo
15 pedals, it has been customary to provide a lock, usually acting to lock the muffler-pedal in the depressed position and to be released by a special provision on the latter or by the depression of one or both of the other pedals.

My invention aims to provide an improved lock of this character and improved means for operating it, and to this end, in carrying out the preferred form of the invention, I
20 construct my improved lock as a swinging link pivoted above the pedal to be locked and on an axis substantially parallel with that on which the pedal is fulcrumed and swinging substantially to or past the dead-center point and against the top of the pedal
25 when the latter is depressed, then holding it in this position and swinging rearwardly when the pedal is in the unlocked position, and then permitting a slight movement of the pedal without locking it; and in its preferred
30 form my improved releasing device consists of a swinging arm pivoted, preferably, on the same axis with and connected to, to move with, the link, having an outwardly-projecting end passing beneath one of the ordinary
35 pedals, engaged by the latter when depressed and then tilting rearwardly, connected to the locking-link, and when so tilted throwing the latter rearwardly until it permits the pedal locked by it to rise, and I provide a spring
40 or other suitable means tending to throw the lock into the locking position.

In the accompanying drawings, which illustrate the preferred form of my invention, Figure 1 is a plan view of a set of piano-pedals,
50 a fragment of the casing being shown and the muffler-pedal being in the locked position. Fig. 2 is a fragmentary front elevation thereof.

Fig. 3 is a fragmentary vertical section thereof cut on the line 3 3 in Fig. 1. Fig. 4 is a similar view showing the muffler-pedal un-
55 locked.

Referring to the drawings, let A indicate the bottom board of a piano-casing and B the front board; C, the pedal-aperture; D, the soft pedal; E, the forte-pedal, and F the
60 muffler-pedal. I indicates the axis on which these pedals are swung; J, springs tending to hold them in the upper position; G, the rods or links for transmitting the motion of the pedals, and H the sound-deadening felts
65 above the pedals. These parts may be of any usual or suitable construction, the form shown being the one commonly used in the art. In such apparatus the pedals D and E are operated to produce pianissimo or forte
70 effects, and the pedal F is depressed to introduce a muffler between the hammers and strings of a piano for producing moderated or harmonic effects from the instrument. A lock for the muffler-pedal is usually provided,
75 which is constructed to be released by the depression of either of the other pedals.

My present invention provides an improved lock and improved releasing means therefor. These are best constructed as shown in the
80 drawings, wherein the lock is lettered K and the releasing device is lettered L.

According to my improvements the lock consists of a swinging member pivoted on an axis *a*, which is above the pedal and is sub-
85 stantially parallel with the axis of the latter. The axis *a* is disposed so that the lower end of the lock K can swing forwardly approximately to or slightly beyond the dead-center relatively to the upward movement of the
90 pedal and can swing rearwardly from this position as the pedal rises. The lower end of the lock is designed to ride on the top face M of the pedal during the movements of the latter, and to avoid friction between the parts
95 I prefer to construct it as an antifriction-roller N. In the construction shown the lock K consists of a U-shaped or bent wire or rod *a*, having a horizontal portion *b*, on which the roller N is carried, upwardly-extending legs
100 *c*, and outwardly-turned bearing portions *d* at the upper ends of these legs, which portions are seated in bearings in blocks *e*, screwed to the inner face of the wall B.

The disposition of the lock K is such that when the pedal F is fully depressed the lock will swing to a substantially vertical position above the pedal and by occupying this position prevent the rising of the latter under the impulse of the pedal-spring. To release the pedal, it is necessary to swing the lock backwardly until it has passed sufficiently away from the vertical position to permit the lifting tendency of the pedal-spring to swing it back farther as the spring raises the pedal. Then the lock will ride back and forth on the pedal as the latter is moved until the latter is depressed sufficiently for the lock to assume again a substantially vertical position and thereby lock the pedal. Any suitable or known means for swinging the lock toward or from either position may be employed; but I prefer to utilize the weight of the lock itself for this purpose and to supplement this by one or more springs or equivalent provisions O, exerting a slight pressure, tending to move the lock toward the locking position, and I prefer to release the lock by my improved releaser L, which in its preferred form consists of an arm projecting forwardly and beneath one of the adjacent pedals and operated by the depression of the pedal to throw the lock back. As shown, this arm has at its forward end a roller P, which is mounted on a horizontal portion *f* of the same wire or rod *a* of which the lock is formed, this wire or rod for convenience being formed with a downwardly-bent leg *g* and a forwardly-bent portion *h* between the portion *f* and the bearing *e*. The roller P is located in such position under the pedal which operates it that as the latter is depressed the roller will roll rearwardly on the under side of the pedal, thus tilting the arm carrying it, and also the lock K, rearwardly as the pedal is depressed until the lock has moved back sufficiently to permit the muffler-pedal F to throw it completely back, whereupon the lock and releaser will be thrown to the position shown in Fig. 4. They will be maintained in this position until the muffler-pedal is again depressed, when the lock and releaser will both be thrown to the locking position under the tension of the spring O, as shown in Fig. 3.

When either of the usual pedals is to operate the lock, as is the case in the construction shown, the releaser will be duplicated at each side of the muffler-pedal. In such case it is preferable to also duplicate the spring O.

It will be seen that my invention provides an improved pedal lock and releaser, and it will be understood that the invention is not limited to the exact details of construction and arrangement set forth as constituting its preferred form, since these may be modified as circumstances or the judgment of those skilled in the art may dictate without departing from the spirit of the invention.

What I claim is—

1. In pedal-locks for musical instruments,

the combination with a pedal having a track-like top face and adapted to be locked in a depressed position, of a lock K consisting of a U-shaped member, pivoted at its upper end on a horizontal axis extending at right angles to the pedal, and swinging longitudinally of the pedal at its lower end, and there having an antifriction-roller riding on the top face of the pedal, swinging forwardly toward a vertical position when said pedal is depressed, and rearwardly to an inclined position when said pedal is raised, means swinging said lock toward the vertical position, and means throwing said lock rearwardly to release the pedal, substantially as and for the purpose set forth.

2. In pedal-locks for musical instruments, the combination with a plurality of pedals one having a track-like top face and adapted to be locked in the depressed position, of a lock for such pedal, pivoted at one end above the latter on a horizontal axis extending at right angles thereto, and riding at its other end on and there swinging longitudinally of the top face of the pedal to be locked, and locking the latter depressed when swung to the forward position, and releasing said pedal when swung to a rearward and inclined position, means swinging said lock toward the forward position, and a releaser for moving said lock to the rearward position extending into the path of movement of and operated by the depression of another of said pedals, substantially as and for the purpose set forth.

3. In pedal-locks for musical instruments, the combination with a plurality of pedals one having a track-like top face and adapted to be locked in its depressed position, of a lock K, pivoted above the pedals on a horizontal axis extending at right angles thereto, swinging at its lower end longitudinally of and riding on the top face of the pedal to be locked, swinging forwardly to an upright position to lock said pedal, and rearwardly to an inclined position to release the latter, a spring swinging said lock toward the forward position, and a releaser-arm connected to said lock for moving it, extending forwardly of its active end and under another of said pedals, operated by the bottom face of the pedal beneath which it is when the latter is depressed, and moving rearwardly during such depression, and thereby moving the lock to the releasing position and releasing the pedal locked, substantially as and for the purpose set forth.

4. In pedal-locks for musical instruments, the lock K and releaser L consisting of a single piece of bent wire *a*, substantially as and for the purpose set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE W. WESER.

Witnesses:

CALVIN L. WESER,
DAVID OWENS.