(No Model.)

W. ROHLFING, Jr.

PIANO FORTE ACTION.

No. 457,590. Patented Aug. 11, 1891.

Fig. 1.

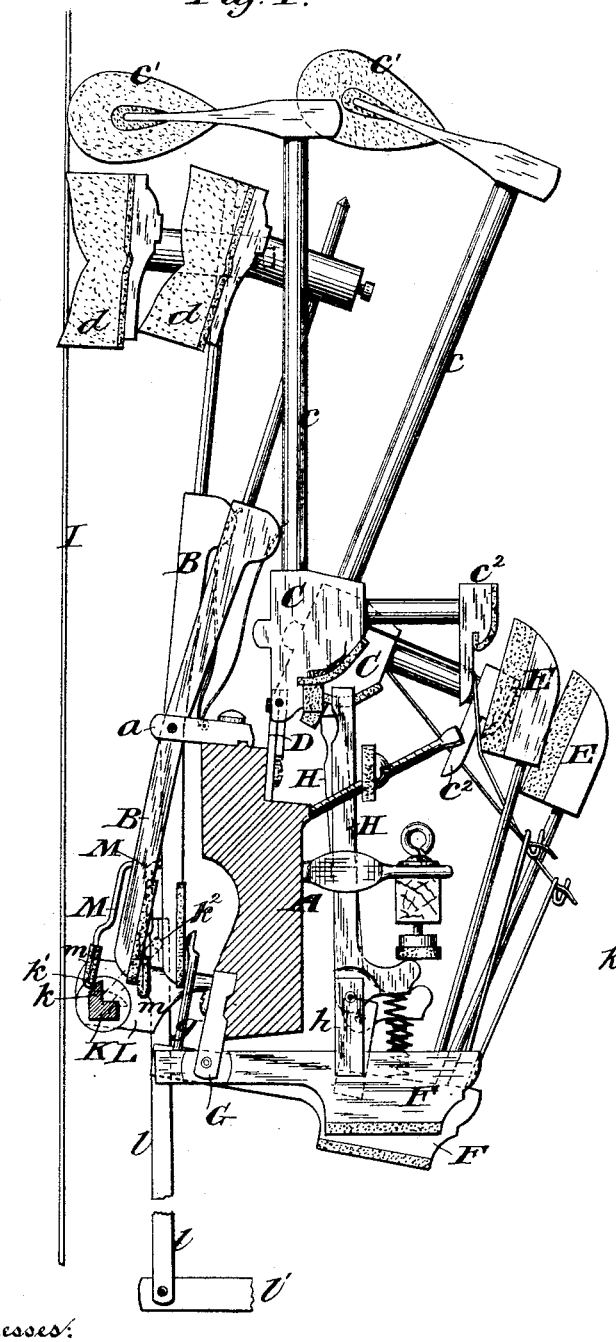
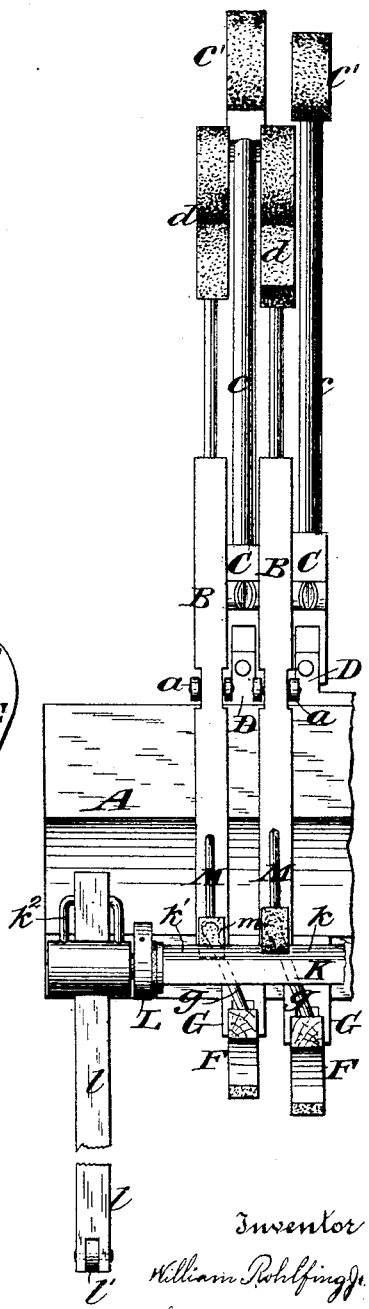


Fig. 2.



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UNITED STATES PATENT OFFICE.

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PIANO-FORTE ACTION.

SPECIFICATION forming part of Letters Patent No. 457,590, dated August 11, 1891.

Application filed February 26, 1891. Serial No. 382,898. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ROHLFING, Jr., of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Piano-Forte Actions, of which the following is a specification.

My invention relates to an improvement in piano-forte actions, more particularly to a pedal for sustaining the tone of one or more notes which have been struck without interfering with or modifying the tones of other notes which may be struck while the tone-sustaining pedal is in action.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of a part of a piano-forte action in end elevation, and Fig. 2 is a view of the same in rear elevation.

A represents the hammer-rail, provided along its top with the damper-flange *a*, in which the damper-levers B are pivotally secured. The hammer-butts C are pivoted to suitable supports D, fixed to the upper portion of the hammer-rail A, the said hammer-butts being provided, as is usual, with the rods *c*, carrying upon outer ends the hammer-heads *c'*. The hammer-butts are provided with extended heels c^2, against which the checks E act, the latter being fixed in the forward ends of the jack-bottoms F. The jack-bottoms F are pivotally secured to the jack-flange G and carry the jacks H, pivotally secured to suitable supports *h* thereon. The jack-bottoms are here provided on their rear ends with arms *g*, the ends of which engage the lower ends of the damper-levers and serve, when the jack-bottom is operated by the action of the key, to tilt the damper-levers, and hence the damper-heads *d*, carried by the levers, backwardly out of contact with the string I as the hammer comes forward to strike it.

The several parts of the action as thus far described may be of any well-known or approved construction, and the several parts by means of which the jack-bottoms, the jacks, and the checks are stopped and returned, and of which particular mention is not made herein, may be of ordinary construction and arrangement. A rock-bar K, provided with an upwardly-projected flange *k*, rounded on its rear side, as shown at *k'*, is mounted in suitable bearings L at the rear of the lower ends of the damper-levers B, and is provided at one end with a crank k^2, (shown in the present instance in the form of a staple,) by means of which the bar K may be rocked through a connecting-rod or bar *l*, engaged at one end with the crank and at the opposite end with a pedal *l'*. The position of the bar K relatively to the lower ends of the damper-levers is such that when it is rocked in the position shown in dotted lines in Fig. 1 the ends of the levers will swing freely back and forth over it; but if the bar be turned into the position shown in full lines, Fig. 1, while the lower end of the damper-lever is swung rearwardly and the damper-head out of contact with the string the flange *k* on the bar will engage the lower end of the damper-lever and prevent it from returning into contact with the string when the key and hammer return to their normal position. In the present instance I have shown the lower ends of the damper-levers as provided with arms M, fixed at their upper ends to the levers and provided at their lower ends with felted heads *m*, with which the flange *k* on the bar K engages, instead of with the lower ends of the body portion of the damper-levers B. When the bar K is rocked into the position to hold one or more of the damper-levers with their heads away from the string, there will still be sufficient room for the full play of the lower ends of such damper-levers as are not held, because of the butt portion of the bar K being cut away in front of the flange *k*, so as to allow the end of the lever to swing over it.

I have omitted to show in the present drawings the usual bar operated by the ordinary loud pedal of a piano-forte, so as to swing the lower ends of all of the damper-levers rearwardly and hold their heads away from the strings; but it is to be understood that such bar may be employed and located and operated as usual.

By the above-described pedal-action I am enabled to sustain the tone of any one or more of the notes or strings which have been struck by simply operating the pedal *l'*, and thereby rocking the bar K, while the keys are still held depressed, and while such tones are

sustained the remaining notes may be manipulated in the same manner as though the sustained tones were not in action.

What I claim is—

1. The combination, with the damper-levers and means for operating them, of a rock-bar provided with a projection adapted to engage the lower ends of the damper-levers when they are thrown into position to throw the damper-heads out of contact with the strings, the body of said bar and the projection thereon being out of the path of the damper-levers not held, and means for rocking the said bar at pleasure and thereby locking and releasing the damper-levers, substantially as set forth.

2. The combination, with the damper-levers and means for operating them, the said damper-levers being provided with yielding arms projecting downwardly in proximity to their lower ends, of a rock-bar provided with a projection in position to engage the free ends of the said downwardly-projected arms on the damper-levers when the damper-levers are thrown into position with their heads out of engagement with the strings, the body of said bar and the projection thereon being out of the path of the damper-levers not held, and means for operating the bar at pleasure to hold one or more of the dampers out of contact with the strings and release them, substantially as set forth.

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