

(No Model.)

J. R. LOMAS.  
ATTACHMENT FOR PIANOS.

No. 491,946.

Patented Feb. 14, 1893.

Fig. 2

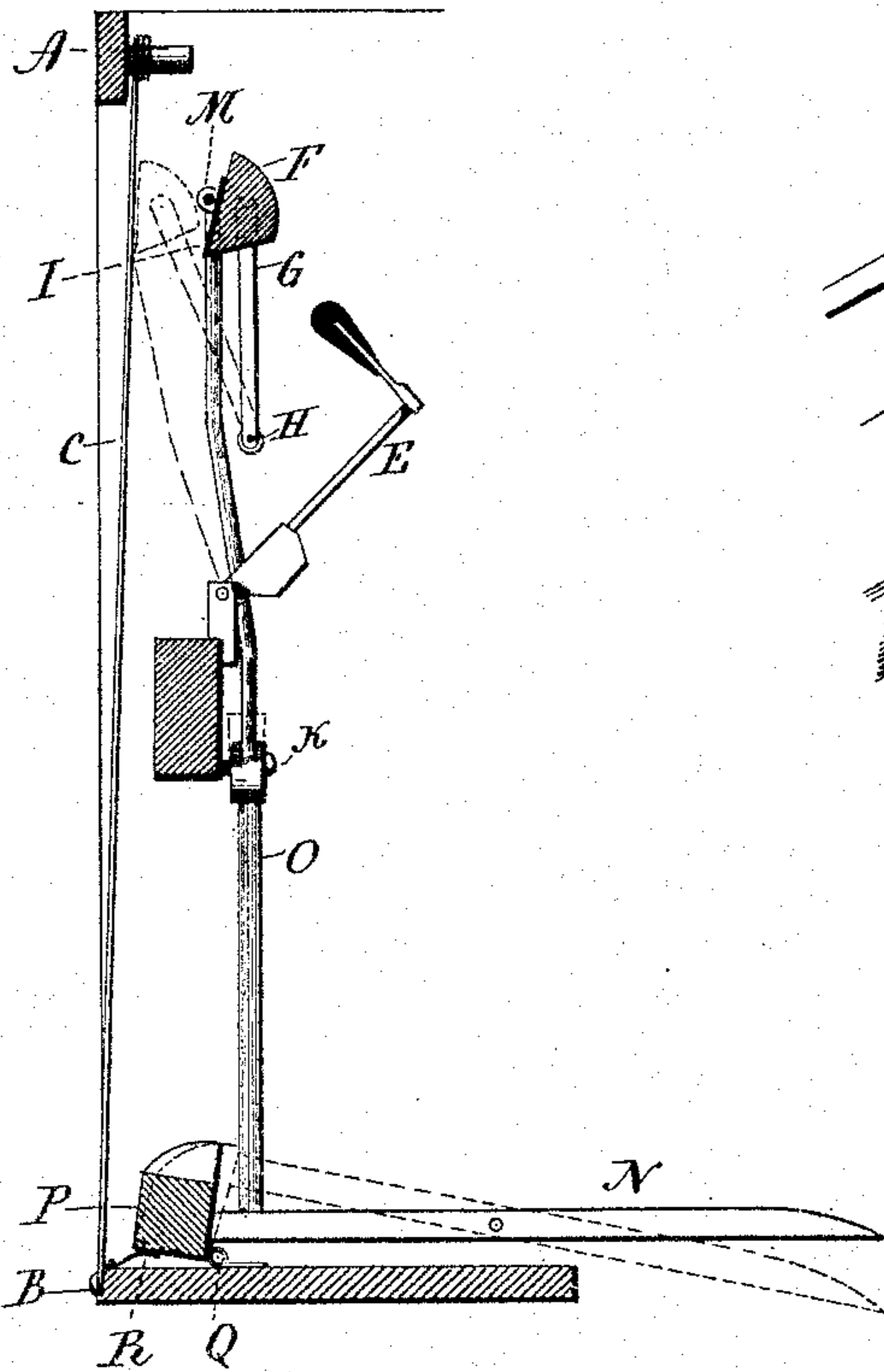


Fig. 1

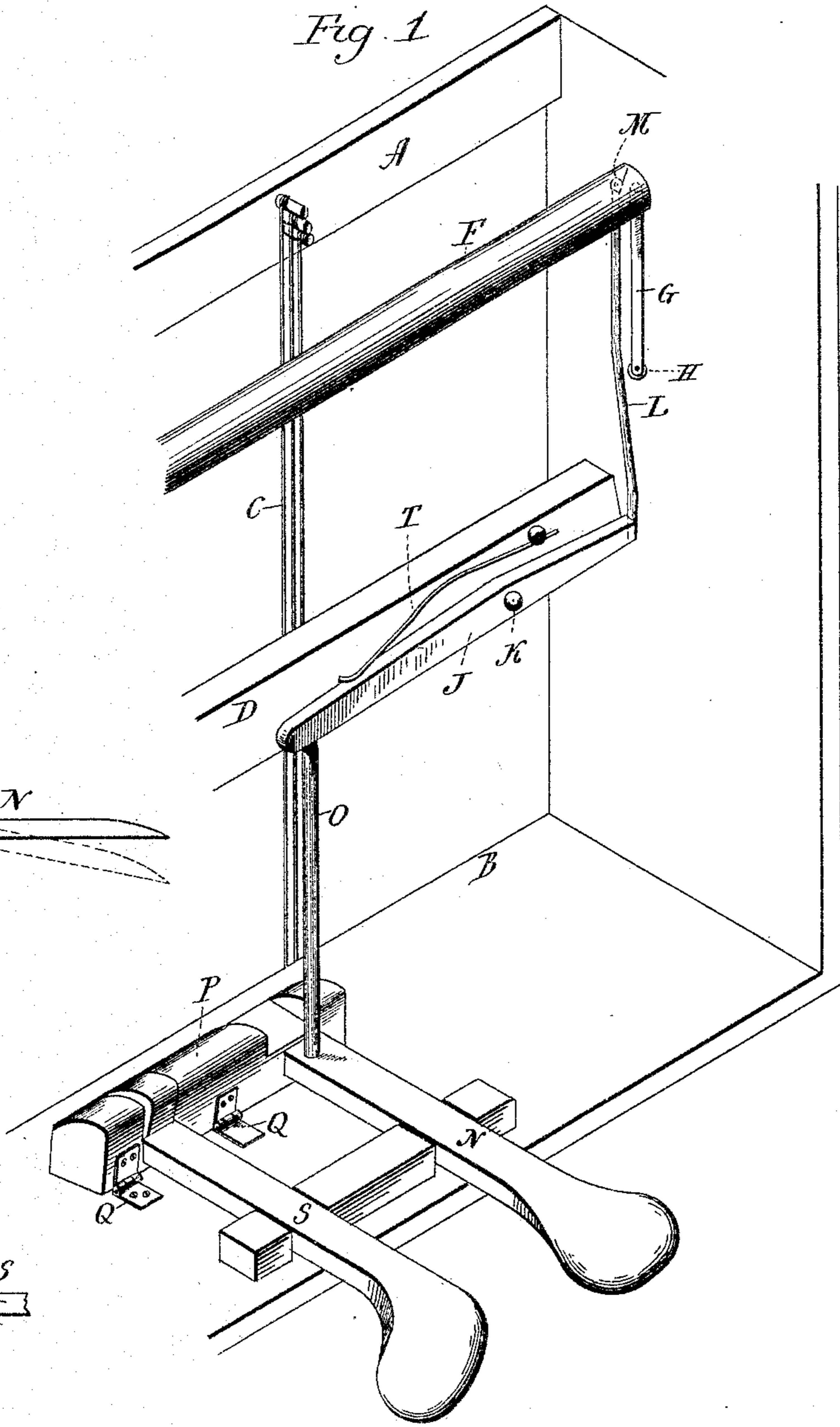


Fig. 3

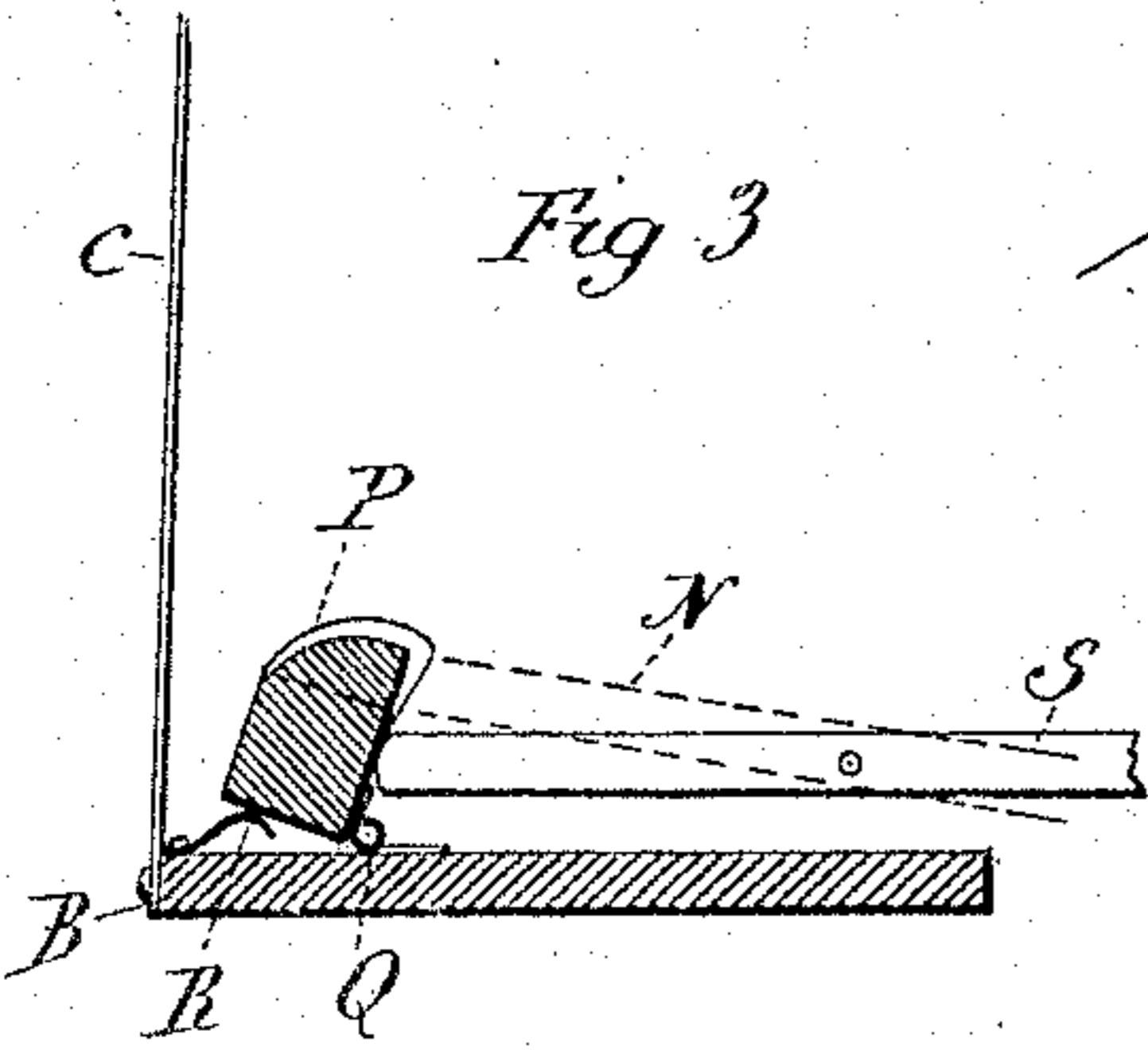
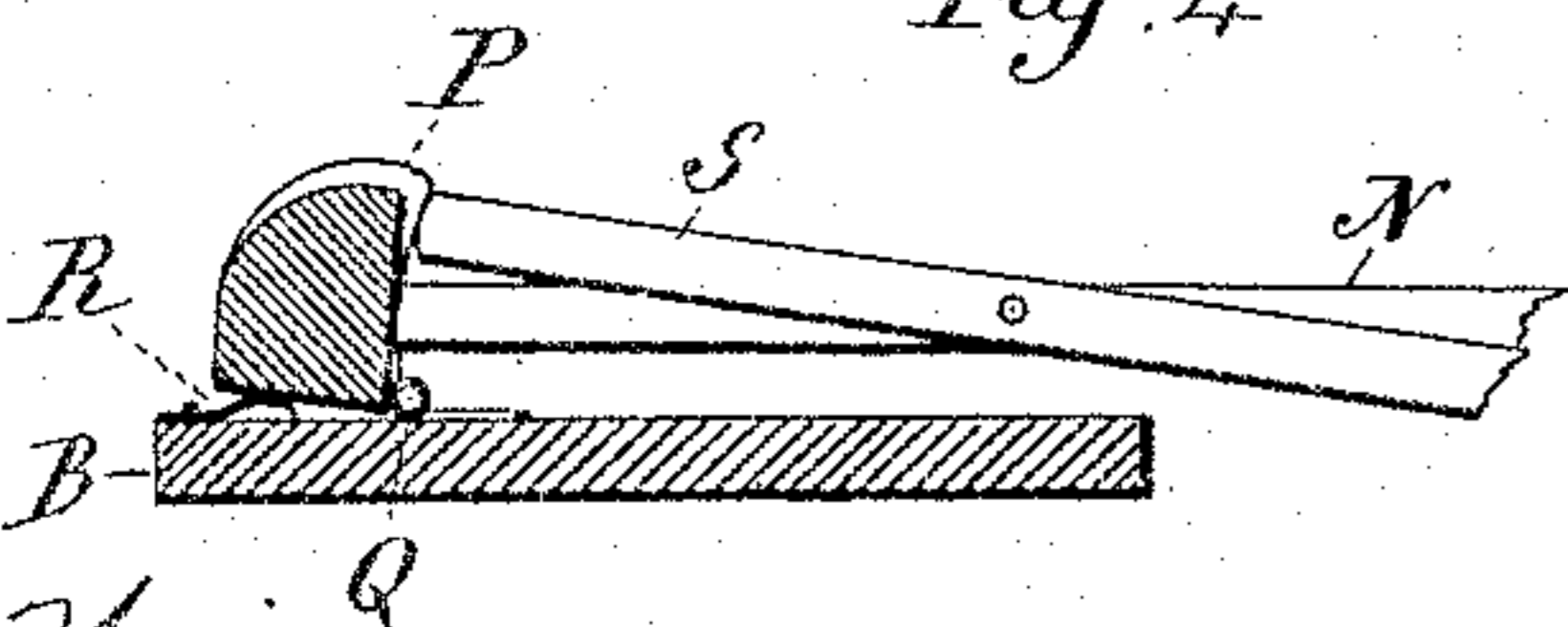


Fig. 4



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## ATTACHMENT FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 491,946, dated February 14, 1893.

Application filed July 11, 1892. Serial No. 439,581. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN R. LOMAS, of West Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Pianissimo Attachments for Pianos; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the mechanism, the parts at the left broken away. Fig. 2, a vertical section cutting just at the left of the pedal N. Fig. 3, a transverse section cutting at the left of the pedal S, representing the pedal N, as in the locked position. Fig. 4 the same as Fig. 3 illustrating the operation of the pedal S to unlock the pedal N.

This invention relates to an improvement in pianos, having for its object to provide a device by which at the pleasure of the performer a flexible flap may be introduced between the hammers and the wires, so that the hammers will strike upon the flap instead of directly upon the wires, and thereby deaden the sound, such an arrangement being desirable for practice when the full sound of the instrument is objectionable or desirable to be suppressed, and the invention consists in the flap combined with pedals, whereby at the pleasure of the performer the flap may be brought into position between the hammers and the wire, or taken therefrom, and as more fully hereinafter described.

In the illustration A, represents the upper bar, and B, the lower bar of a frame to which the wires C, are attached in the usual manner.

D, represents the bar to which the hammers are hung, E, representing one hammer. The hammers are operated by keys in the usual manner, that mechanism not being shown.

F, represents a longitudinal bar, which is carried by arms G, pivoted at their lower end upon a stationary pivot H, and so that the bar may swing toward or from the wires, as from the position in Fig. 2, to the position represented in broken lines same figure, and return. The bar F, carries a flap I, of flexible material, which as the bar swings toward the wires, brings the flap onto the wires at a

point where the hammers strike, and as seen in broken lines Fig. 2, but when the bar is turned away to its normal position, as seen in Fig. 2, the hammers when thrown, pass below the flap, so as to strike the wires, as usual, and without interference with the flap. When the flap is upon the wires the hammers strike directly on the flap, and the flap lying upon the wires so receives the blow of the hammer as to soften or deaden the sound of the wires. For practice, particularly in the case of beginners, this softening is very desirable. To throw the flap into and out of its operative position, a lever J, is hung to the bar D, upon a pivot K. From one arm of the lever J, a connecting rod L is hung to the bar, as at M, and so that as that end of the lever is raised, it will throw the bar forward, as indicated in Fig. 2; when that arm of the lever is depressed, it will force the bar rearward, and so as to bring the flap directly upon the wires, as seen in broken lines Fig. 2.

N, represents the muffling pedal, which is hung between its ends, and from the inner end of the pedal a rod O, extends up below the other arm of the lever J, and so that as that lever is depressed, it will raise the said other arm, and cause the bar F, with the flap to be thrown against the wires, and as represented in broken lines Fig. 2. To hold the pedal thus depressed and the bar F, in the operating position, a latch-block P is hung near the pedals, here represented as by hinges Q, and so that the said block may rock backward and forward, and beneath the block in rear of the hinges is a spring R, the tendency of which is to turn the block forward against the inner end of the pedal N, and so that when the pedal N, is depressed, as represented in broken lines Fig. 2, the latch-block will, by its spring R, be turned forward beneath the inner end of the pedal, and so as to lock the pedal in that depressed position with the bar F, and its flap against the wires. To throw the latch-block P, out of such engagement when it is desired to remove the flap, a releasing pedal S, is hung like the pedal N, its inner end forward of the latch-block, and so that as the latch-block springs forward, as before described its front side will bear against and overhang the inner end of the pedal S, as

seen in Fig. 3, then by depressing the pedal S, as from the position seen in Fig. 3, to that seen in Fig. 4, the inner end of the pedal S will operate against the front side of the latch-block P, as a cam, and so as to turn the latch-block rearward from the position seen in Fig. 3, to that seen in Fig. 4, and so as to permit the pedal N, to escape therefrom, and so escaping, a spring T, will operate upon the lever J, to force the inner end of the pedal downward and return the bar F and its flap to its normal position away from the wires. The pedal S may also be used, if desired, as one of the regular pedals of the instrument, and probably will be so used. By this arrangement the performer may at any time by the operation of the foot, throw the pedal-bar and its flap against the wire, and so as to continue playing without producing any considerable degree of sound, the flap being held in its working position without any effort of the performer, for the reason that the flap-bar is locked so soon as it is thrown to its operating position, and whenever it is desired to withdraw the flap, the other pedal S, is depressed accordingly.

I am aware that it is old to provide for muffling pianos by means of a flexible flap constructed and arranged to be temporarily interposed between the wires or strings of the instrument and the hammers thereof, and controlled by the mechanism operated by the pedals. I am also aware that it is old to lock a pedal in its operating position and to provide for releasing it and restoring it to its normal position. I do not therefore claim any of those constructions broadly, but,

Having fully described my invention, what I desire to secure by Letters Patent is—

In a muffling device for pianos, the combination with the wires and hammers thereof, of a bar constructed and arranged to be moved toward and away from the wires, a flexible flap attached to the said bar and adapted to pass between the hammers and the wires when the bar is moved toward the latter, a muffling-pedal pivoted between its ends, connections between the inner end of the said pedal and the said bar, whereby the bar is moved toward the wires when the outer end of the pedal is depressed, a releasing pedal also hung between its ends, and located adjacent to the said muffling-pedal, a pivotal latch-block located close to the inner ends of both of the said pedals, which normally abut against its outer face, and a spring for throwing the said block forward to bring its upper edge under the inner end of the muffling pedal when the outer end of the same is depressed, substantially as set forth, and whereby the depression of the outer end of the releasing pedal swings the latch-block backward against the force of the said spring, and clears its upper edge from the inner end of the muffling-pedal which then returns to place when the bar moves away from the wires.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN R. LOMAS.

Witnesses:

JOHN E. EARLE,  
GEO. D. SEYMOUR.