

UNITED STATES PATENT OFFICE.

GEORGE W. NEILL, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN UPRIGHT-PIANO ACTIONS.

Specification forming part of Letters Patent No. **197,526**, dated November 27, 1877; application filed October 10, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. NEILL, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Actions for Upright Piano-Fortes; and do hereby declare the same to be described in the following specification and represented in the accompanying drawing, which exhibits a side elevation of my improved action.

My improvement consists in the combination of a stationary bar and a pivoted supporting-arm with the back-catch and the fly-supporting arm or bed, all being arranged essentially as set forth.

The advantages of the improvement over most, if not all, ordinary modes heretofore in practice for supporting the back-catch are, that it enables it to better sustain the hammer, and the latter to repeat with more certainty and useful effect.

In the drawings, A denotes the key; B, the hammer; C, the jack or fly, and D the bed or supporting-arm of such fly. This bed is pivoted to a stationary rest or bar, *a*, the fly being hinged to the bed at its front. The said bed rests on the top of a push-rod, *b*, which, at

its lower end, is pivoted to a rocker or adjustable lever, *c*, fixed to the key.

From the hinge-block of the hammer an arm, *d*, projects backward, and is provided with a head, *e*, for the back-catch *f* to bear against. The wire *g* of the back-catch extends upward from a sustaining-arm, *h*, which, hinged to a stationary bar, *i*, rests on the bed D. The back-stop E of the fly is arranged over the bar *i*, as shown. A strap, F, extends down from the hinge-block of the hammer to, and is fixed to, a wire, G, projecting from the bed D.

The key being struck, the fly-bed will force upward the supporting-arm of the back-catch, which arm will fall with the said bed while the key may be in the act of rising.

I claim—

In an upright-piano action, the combination of the straining-bar *i* and the pivoted supporting-arm *h* with the back-catch and the fly-supporting arm or bed, all being arranged substantially as set forth.

GEO. W. NEILL.

Witnesses:

R. H. EDDY,
JOHN R. SNOW.