No. 630,000.

Patented Aug. 1, 1899.

A. D. LUVENE.

PIANO ACTION.

(Application filed May 8, 1899.)

(No Model.)

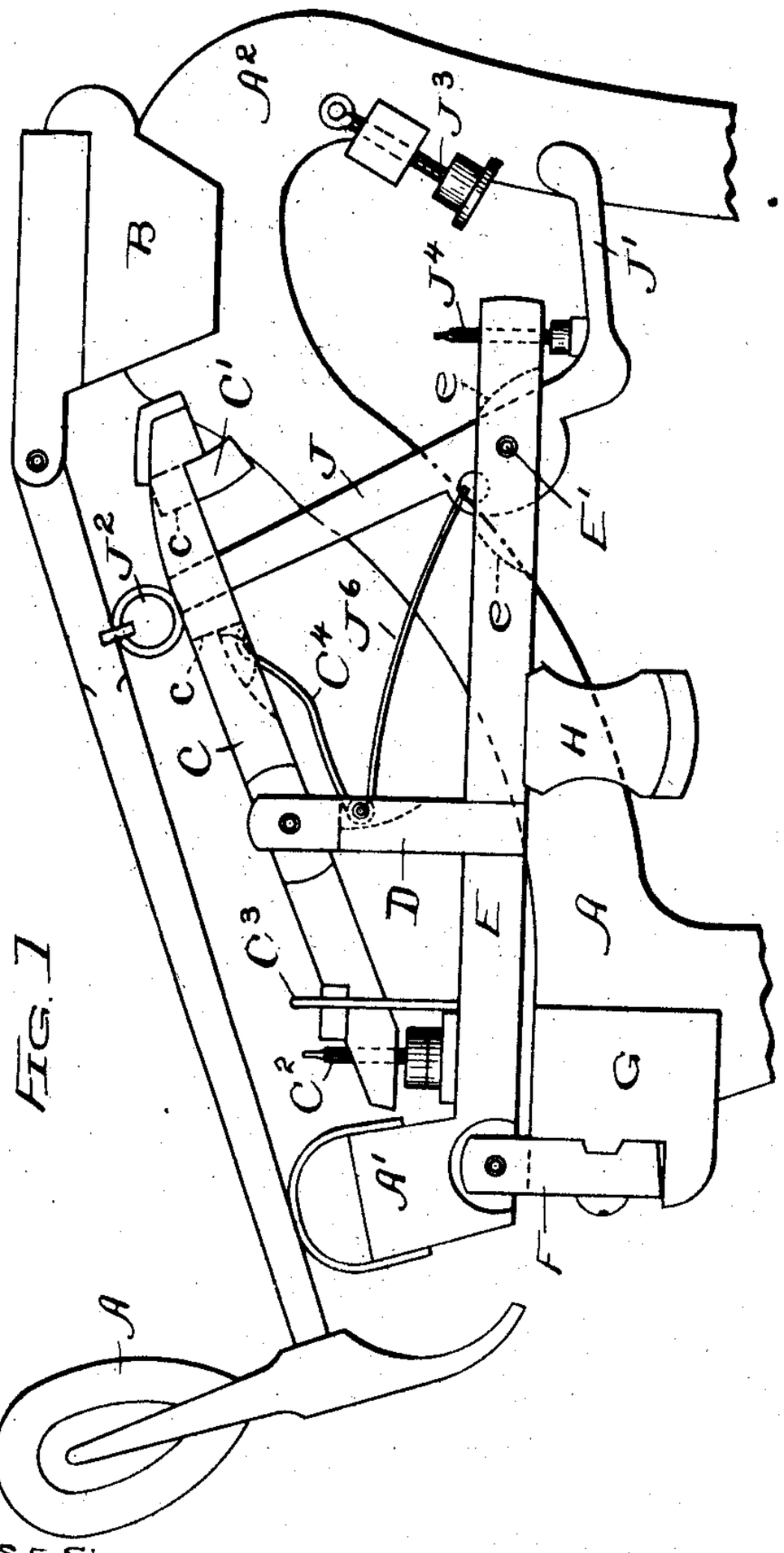

FIG. 1

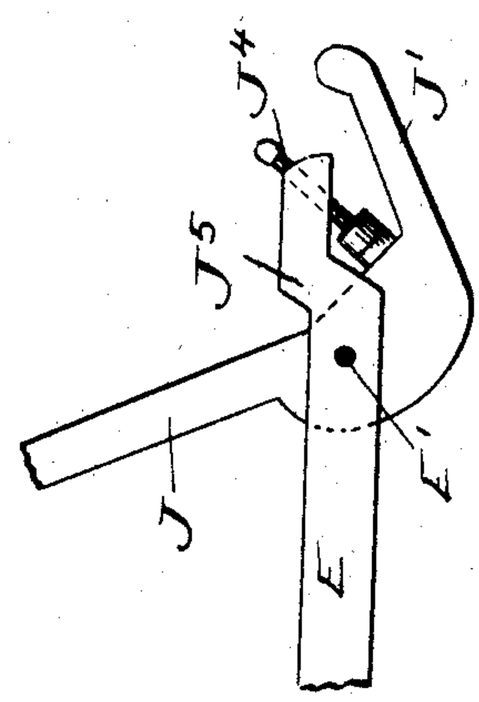

FIG. 2

WITNESSES:
Law. C. Curtis
H. W. Munday.

INVENTOR:
ANDREW D. LUVENE
BY Munday, Evarts & Adcock.
HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

ANDREW D. LUVENE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE W. W. KIMBALL COMPANY, OF SAME PLACE.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 630,000, dated August 1, 1899.

Application filed May 8, 1899. Serial No. 715,902. (No model.)

To all whom it may concern:

Be it known that I, ANDREW D. LUVENE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Piano-Actions, of which the following is a specification.

This invention relates to the construction of the actions used in grand pianos, and more especially to the means used for regulating the movements of the jack usually employed with the repetition-lever.

The invention consists in the novel construction hereinafter described and illustrated in the accompanying drawings.

In said drawings, Figure 1 represents an elevation of that portion of a grand-piano action embracing my improvement. Fig. 2 shows a modified construction.

In said drawings, A designates the hammer, secured to the rail B in the usual manner, and A′ is the hammer-rest.

C is the repetition-lever, pivoted centrally to the post D, attached to the horizontal hammer-rest-supporting bar E. The bar E is pivotally connected at one end to a bracket F, rigidly joined to the action-rail G, and is also supported from the key-lever (not shown) by a buffed block H, projecting downward from its under surface. This block is located near the center of the bar. The hammer and action-rails are sustained by metal frames A^2 in the usual manner.

The repetition-jack J is elbow-shaped, the main portion being arranged to stand at an incline from the vertical, and its foot or let-off J′ being arranged to project horizontally, or nearly so. The jack is positioned in a slot formed in the bar E and indicated by the broken lines *e e* and pivoted therein upon the pivot E′. The upper end of the jack plays in a slot in the repetition-lever (indicated by the broken lines *c c*) and provided with buffing material C′ at one end, and it actuates the hammer through the medium of a buffer or knuckle J^2, attached to the hammer-arm. The let-off strikes the usual let-off screw J^3 when the jack is raised.

The action of the repetition-lever is regulated in the usual manner by the screw C^2, bearing upon the bar E, and the stop C^3, consisting of a wire secured in said bar and having a right-angle bend extending over the top of the lever, the screw limiting movement by the lever in one direction and the stop in the other.

C^4 is a spring acting to keep the lever in its normal position.

The action of the jack is regulated by means of a set-screw J^4, passing through the end of bar E, as seen, and bearing against the foot of the jack. The bar E is extended at this end for the double purpose of supporting the regulating-screw and of pivoting the jack in a closed instead of an open-ended slot, as has been the custom heretofore.

In the modified construction shown in Fig. 2 the regulating-screw is passed through the bar in an angling direction, which makes it more easy of access for adjustment. I prefer also where this is done to offset the end of the bar, as at J^5.

The spring J^6 retains the jack in the position shown at Fig. 1, this being its normal position.

I claim—

1. The grand-piano action having its jack regulated by a screw passed downwardly through a horizontal extension of the rest-supporting bar, and coming directly in contact with the foot portion of the jack, substantially as specified.

2. The grand-piano action having its jack regulated by a screw passed diagonally through an extension of the rest-supporting bar, and coming directly in contact with the foot of the jack, substantially as specified.

ANDREW D. LUVENE.

Witnesses:
EDWD. S. EVARTS,
H. M. MUNDAY.