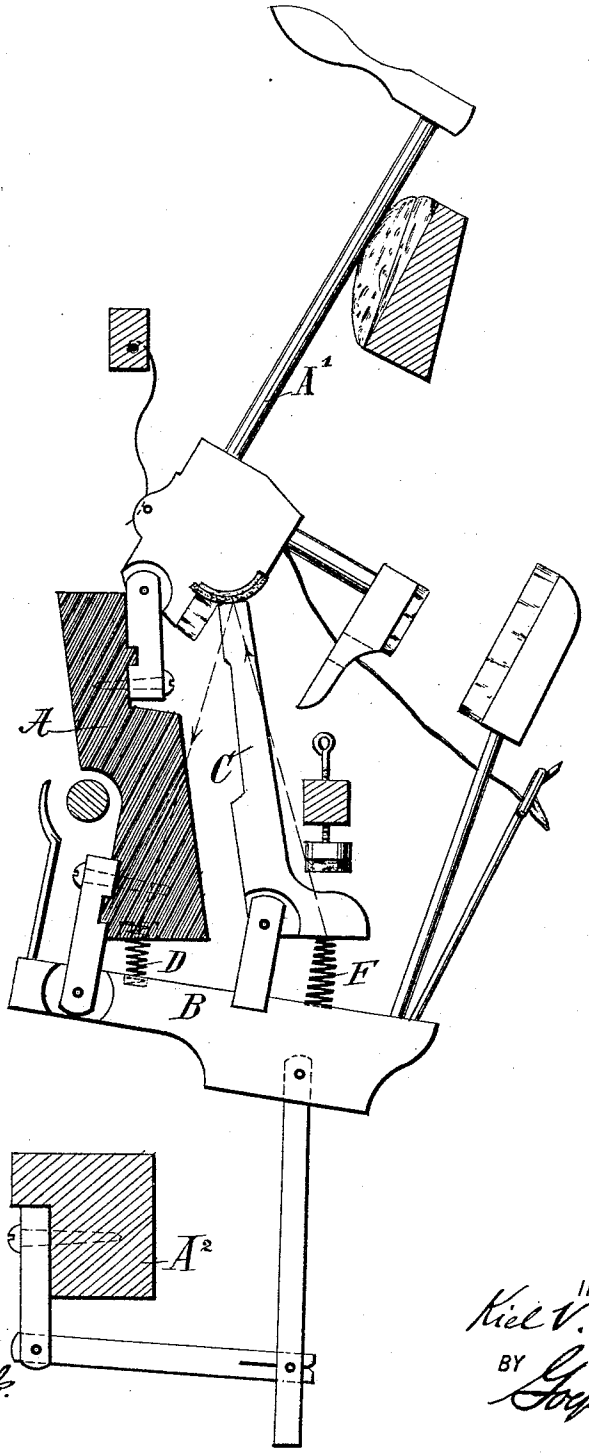
(No Model.)

K. V. BARNEKOV.

UPRIGHT PIANO ACTION.

No. 525,180. Patented Aug. 28, 1894.



WITNESSES:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

KIEL V. BARNEKOV, OF NEVADA, MISSOURI.

UPRIGHT-PIANO ACTION.

SPECIFICATION forming part of Letters Patent No. 525,180, dated August 28, 1894.

Application filed February 23, 1893. Serial No. 463,292. (No model.)

To all whom it may concern:

Be it known that I, KIEL V. BARNEKOV, a citizen of the United States, residing at Nevada, in the county of Vernon and State of Missouri, have invented certain new and useful Improvements in Upright-Piano Actions, of which the following is a specification.

This invention relates to an improved action for upright pianos, in which greater rapidity of action and facility of repetition is obtained; and the invention consists of an upright piano-action in which the rubbing or friction of the jack upon the butt of the hammer, which rubbing or friction is imparted by a spring interposed between the heel of the jack and the jack-lever, is relieved by means of a spring interposed between the top of the jack-lever and the bottom of the hammer-rail, as will be described hereinafter and finally pointed out in the claim.

In the accompanying drawing is shown a side-elevation of my improved upright-piano-action partly in section, through the supporting-rails of the action.

Referring to said drawing, A represents a hammer-rail to which the hammers A′ are pivoted in the usual manner. Below the hammer-rail are fulcrumed the jack-levers B to which the jacks C are applied in the usual manner. The jack C is acted upon by the helical spring F, which is interposed between its lower end or heel and the jack-lever B, and serves to push the jack against the hammer-butt. The upper end of the jack C rubs against the hammer-butt before it comes back to renew its action thereon.

For the purpose of exerting a slight but constant downward pressure on the jack-lever B, a helical spring D is interposed between the bottom of the hammer-rail A and the top of the jack-lever, in front of its pivot, the ends of said spring being secured in suitable recesses or sockets in said parts, as shown in dotted lines. These springs are subjected to tension by compression and act by expansion so as to assist in the return of the jack-levers to their initial position. The spring D counteracts the rubbing or friction of the jack C with the hammer-butt, which is produced by the spring F, and acts to bring the jack quickly back into position for repeating, so that a great rapidity in the movement of the parts of the action is obtained, which cannot be obtained without the use of this spring action on the jack-lever. The action of the spring D on the jack-lever in connection with spring F renders the entire action more sensitive and better adapted for repetition, and permits the keys to be worked as easily as before, so as to supply a superior action for upright-pianos. The remaining accessories of the action are the same as in the well-known piano-action.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

An upright-piano action, comprising a hammer and its rail, a jack which rubs against the butt of the hammer, a jack-lever to which the jack is pivoted, said jack-lever being pivoted to said rail, an expansion-spring interposed between the jack-lever and the heel of the jack, in front of its pivot connection with the jack-lever, and a counteracting spiral expansion-spring seated in the hammer-rail and said jack-lever, respectively in front of its pivot-connection with said rail, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

KIEL V. BARNEKOV.

Witnesses:
ROBERT LAYSTROM,
H. C. DAILEY.