(No Model.)

S. BRAMBACH.

UPRIGHT PIANO ACTION.

No. 363,947. Patented May 31, 1887.

Fig. 1.

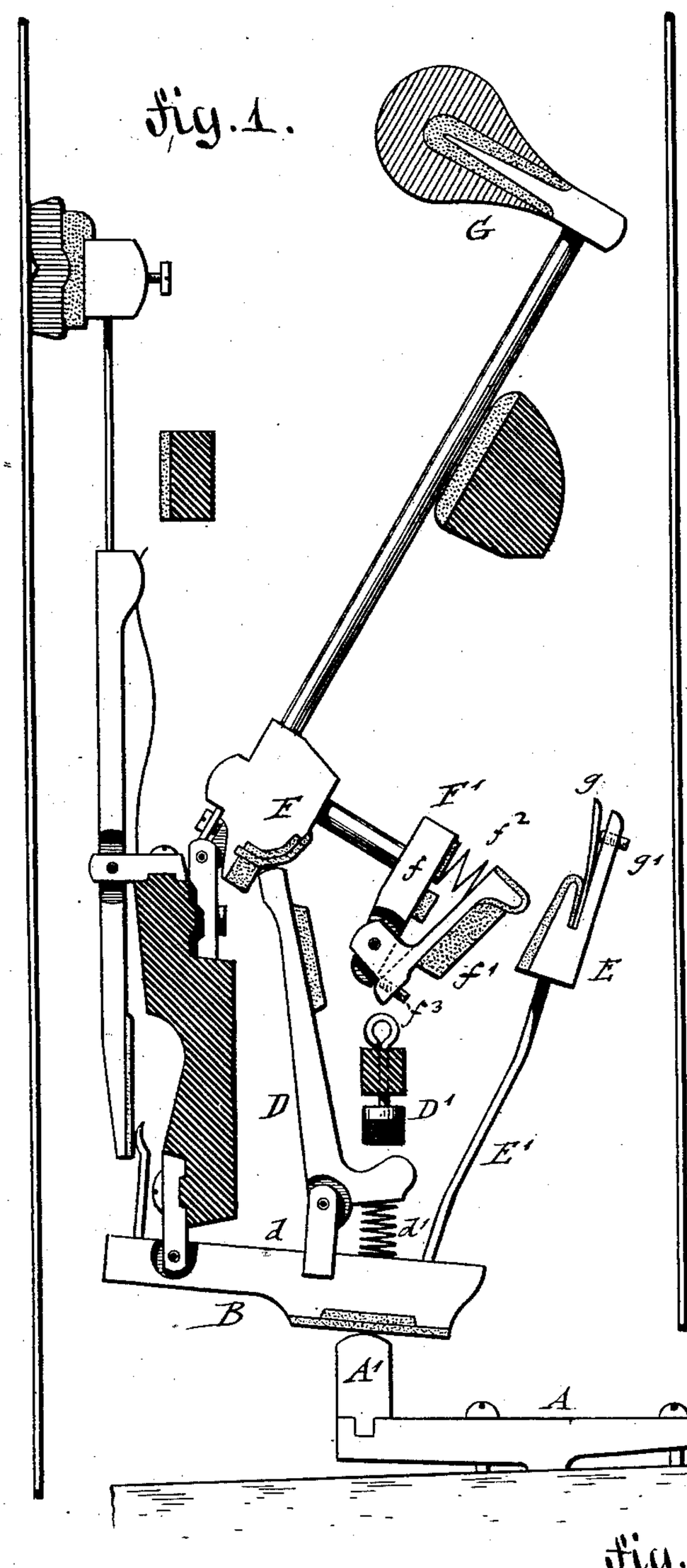


Fig. 2.

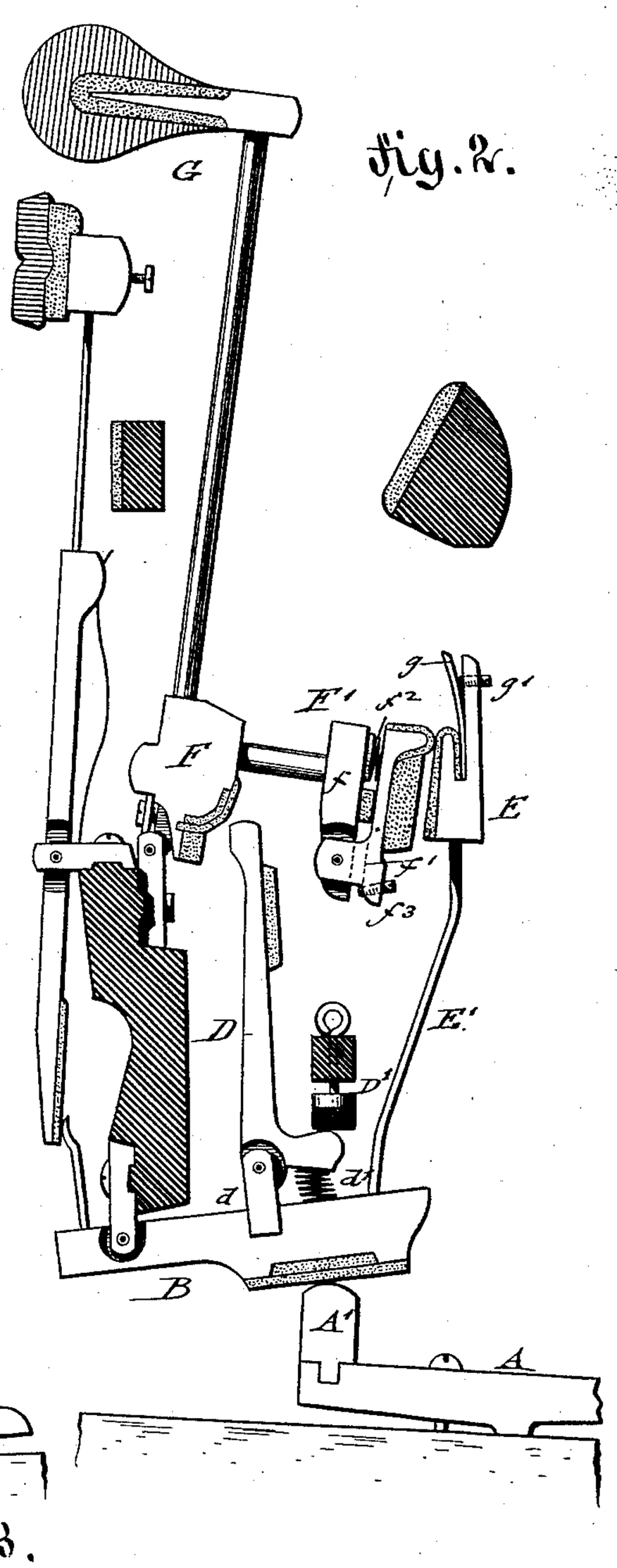
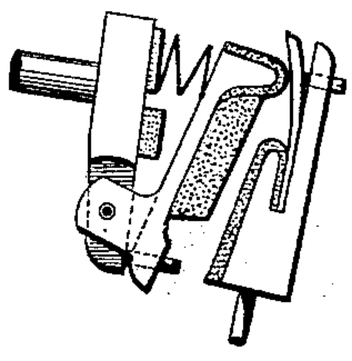


Fig. 3.



WITNESSES:

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STEPHAN BRAMBACH, OF NEW YORK, N. Y.

UPRIGHT-PIANO ACTION.

SPECIFICATION forming part of Letters Patent No. 363,947, dated May 31, 1887.

Application filed March 19, 1887. Serial No. 231,567. (No model.)

To all whom it may concern:

Be it known that I, STEPHAN BRAMBACH, of the city, county, and State of New York, have invented certain new and useful Improvements in Upright-Piano Actions, of which the following is a specification.

This invention relates to certain improvements in upright-piano actions for which Letters Patent were granted to me, No. 322,089, dated July 14, 1885, the improvement being designed with a view to simplify the construction of the action by dispensing with the bridle and bridle-wire, and rendering the same more durable and effective; and the invention consists of an upright piano action in which the hammer-butt is provided with a downwardly-extending shoe, said shoe being formed of a fixed part and a pivoted and spring-cushioned part, the latter being supported on the back-check, which is provided with a tongue and a set-screw for said tongue, as will be fully described hereinafter, and finally be pointed out in the claims.

In the accompanying drawings, Figures 1 and 2 represent side elevations of my improved upright-piano action, showing the same respectively in a position of rest and in the act of striking the string; and Fig. 3 is a side view of the same, showing the jack returned to its position on the hammer-butt, while the shoe is still in position on the back-check.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the key-lever; A′, a heel at the rear end of the same, which heel acts upon the front end of the fulcrumed jack-lever B. The jack-lever B carries in the usual manner, on a raised support, *d*, the jack D, the shorter arm of which is acted upon by a spiral spring, *d′*.

To the front end of the jack-lever D is attached a wire-shank, E′, to the upper end of which the back-check E is applied. An adjustable check, D′, engages the shorter arm of the jack D, while the upper end of the longer arm of the jack D engages a shoulder on the hammer-butt F, so as to operate thereby the hammer G whenever the key is depressed. From the hammer-butt F extends in backward direction an upwardly-extending shoe, F′, which shoe is made of a fixed section, *f*, and a pivoted section, *f′*, between which and the section is interposed a spiral spring, f^2, while a stop-screw, f^3, at the lower end of the pivoted section *f′* prevents the same from being moved beyond a certain distance from the fixed section *f* by the spring f^2.

The construction of the shoe F′ forms, in connection with the back-check E, the novel feature of this application. The back-check E is provided with an adjustable tongue, *g*, and a set-screw, *g′*, for said tongue. The spring-cushioned section *f′* abuts against the tongue when the hammer strikes the string and slides back along the same and the back-check, the tongue being adjusted by its set-screw so as to exert the exact degree of checking action that is desired to be imparted to the shoe. The pivoted and spring-actuated section *f′* of the shoe F forms next contact with the back-check E, and is pressed by the back-check against the fixed section of the shoe F, so that the hammer is held in position, while the jack lever can return to its normal position below the shoulder of the hammer-butt, the hammer being supported at some distance from the string and prevented from dropping back to its cushion, as shown in Fig. 2. In this position the hammer is ready for quick repetition, as the length of the stroke is thereby considerably diminished. As soon as the key is released the hammer is returned to the hammer-rail, while the back-check releases the shoe and hammer-butt and permits it to return to a position of rest, as shown in Fig. 1. The hammer is then ready for the next operation.

The essential feature of my invention, as compared to my former patent referred to, consists in the construction of the shoe, which is made of a fixed and spring-cushioned section, instead of making the back-check of a fixed and spring-cushioned section, as heretofore. By constructing the shoe in the manner described all the advantages of my former construction are retained, while in addition thereto the bridle and bridle-wire are dispensed with, and the jack quickly returned to its position on the shoulder of the hammer-butt by the action of the spring-cushioned shoe-section and the tongue of the back-check, whereby repetition is greatly facilitated.

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

1. The combination, with a jack-lever and

jack, of a hammer-butt having a shoe composed of a fixed section and a pivoted and spring-cushioned section, and a back-check for said shoe, substantially as set forth.

2. The combination of a jack-lever, a jack, a hammer-butt having a shoe composed of a fixed section and a pivoted and spring-cushioned section, and a back-check having an adjustable tongue, substantially as set forth.

3. As an improvement in piano-actions, a hammer-butt having a shoe composed of a fixed section and a pivoted and spring-cushioned section, substantially as set forth.

4. As an improvement in piano-actions, a hammer-butt having a shoe composed of a fixed section, a pivoted and spring-cushioned section, and a stop-screw at the lower end of the pivoted section, substantially as set forth.

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

STEPHAN BRAMBACH.

Witnesses:
PAUL GOEPEL,
CARL KARP.