

(No Model.)

2 Sheets—Sheet 1.

J. BLÜTHNER.
REPEATING ACTION FOR GRAND PIANOS.

No. 543,370.

Patented July 23, 1895.

Fig. 1

Fig. 2

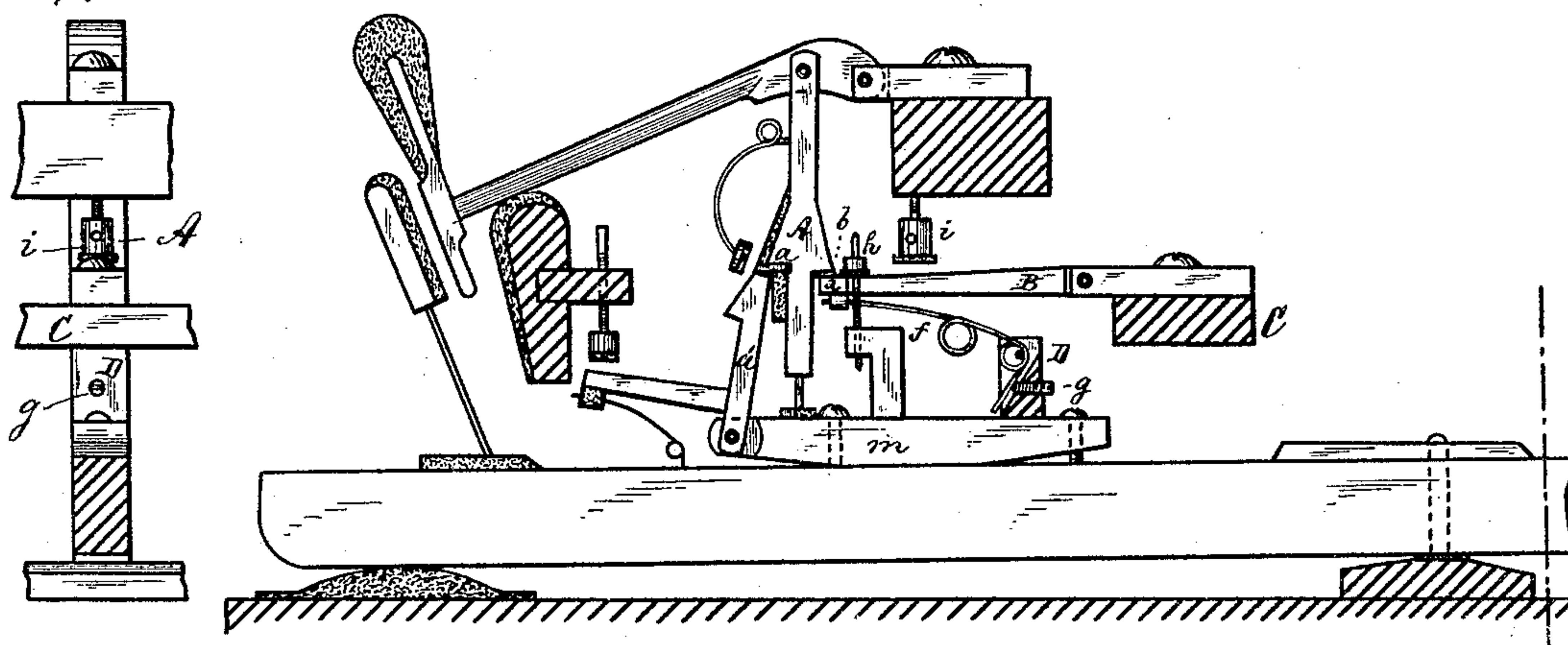


Fig. 3

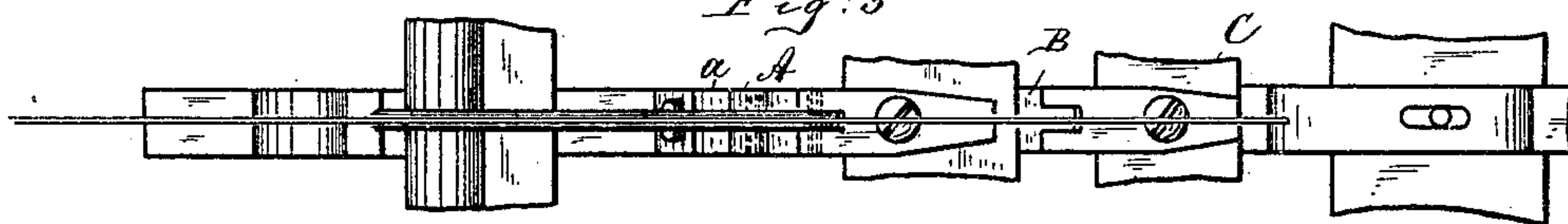
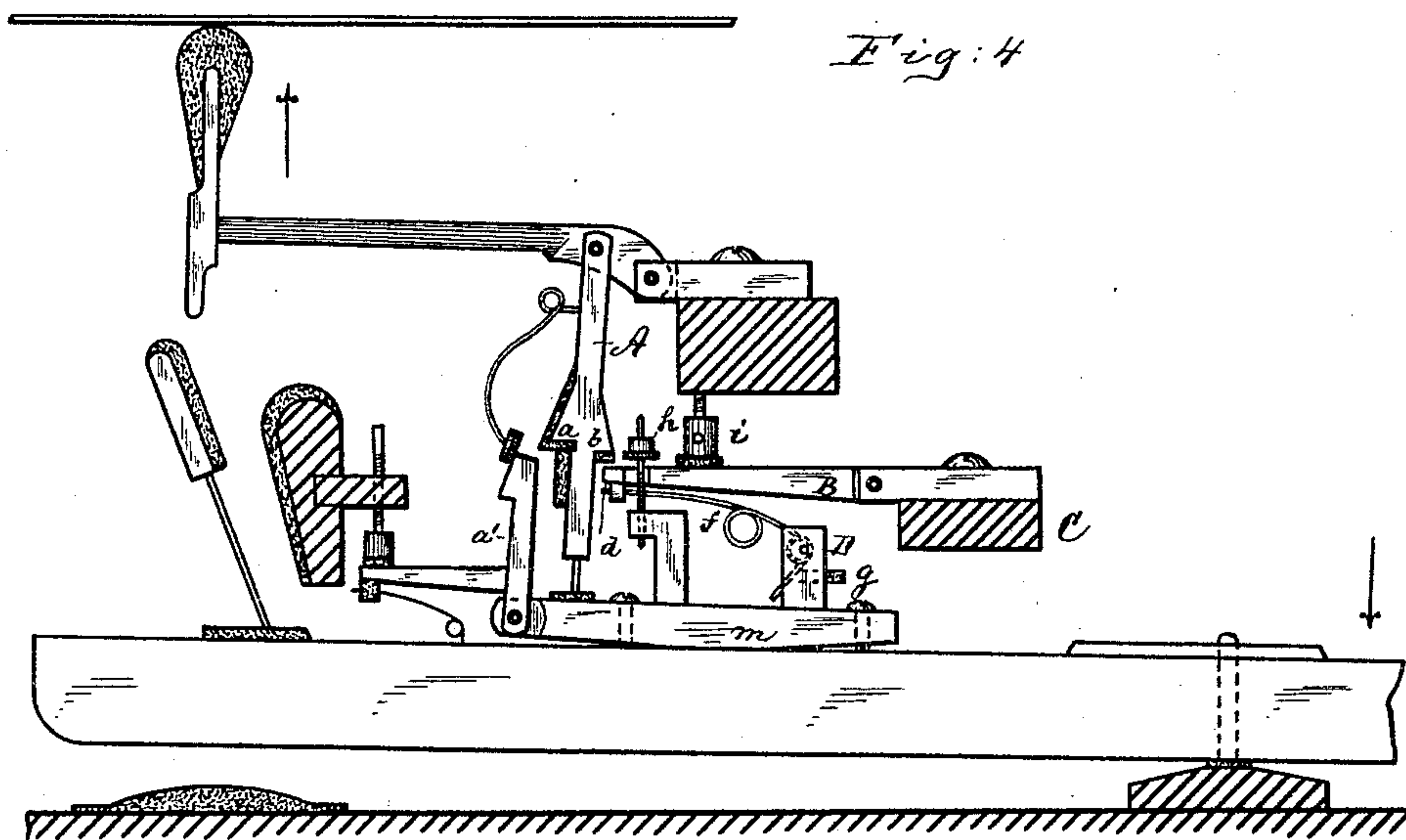


Fig. 4



Witnesses

William Schulz
John Becker

Inventor

Julius Blüthner
by his attorneys
Roeder & Biers

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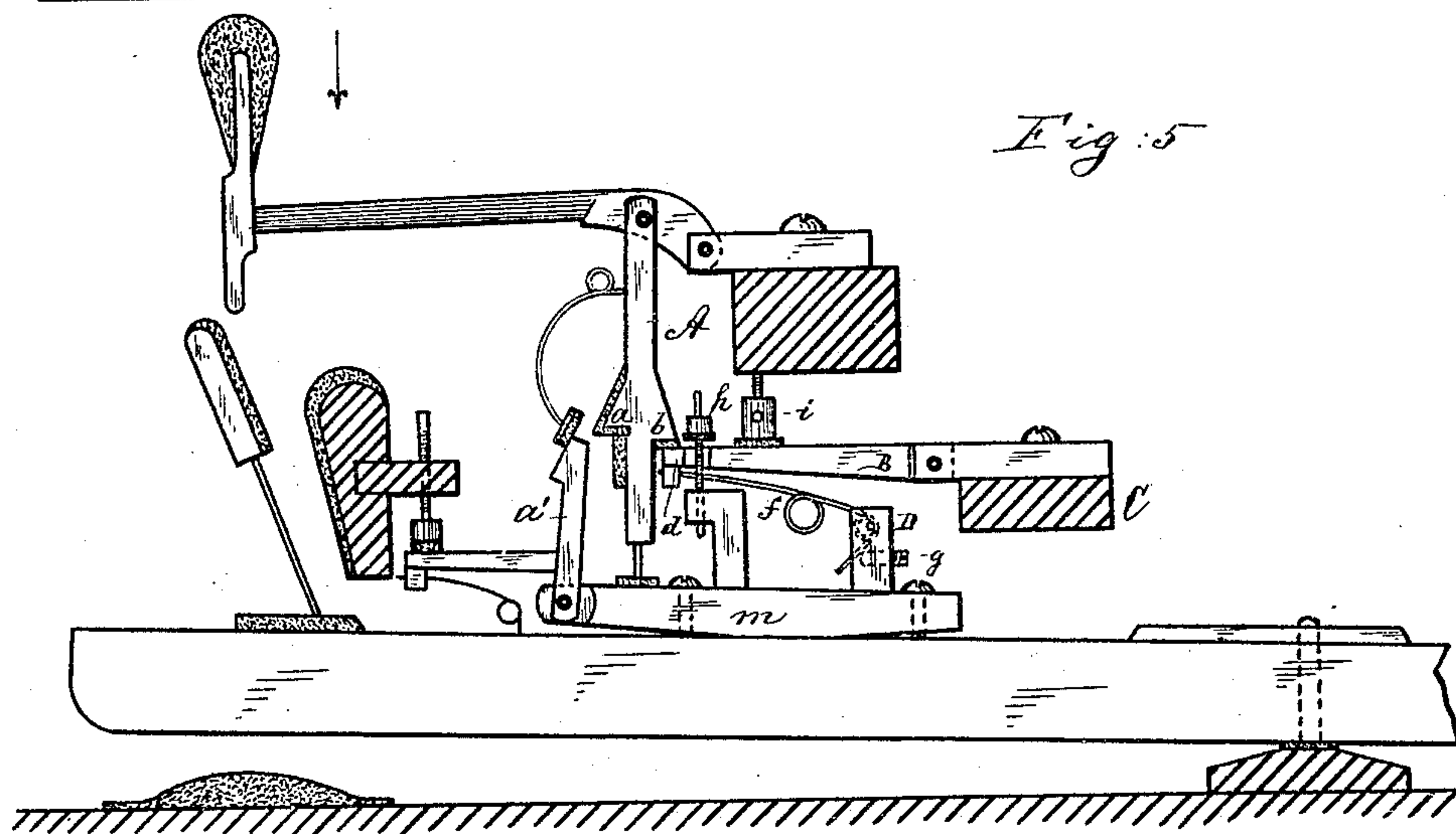


Fig: 6

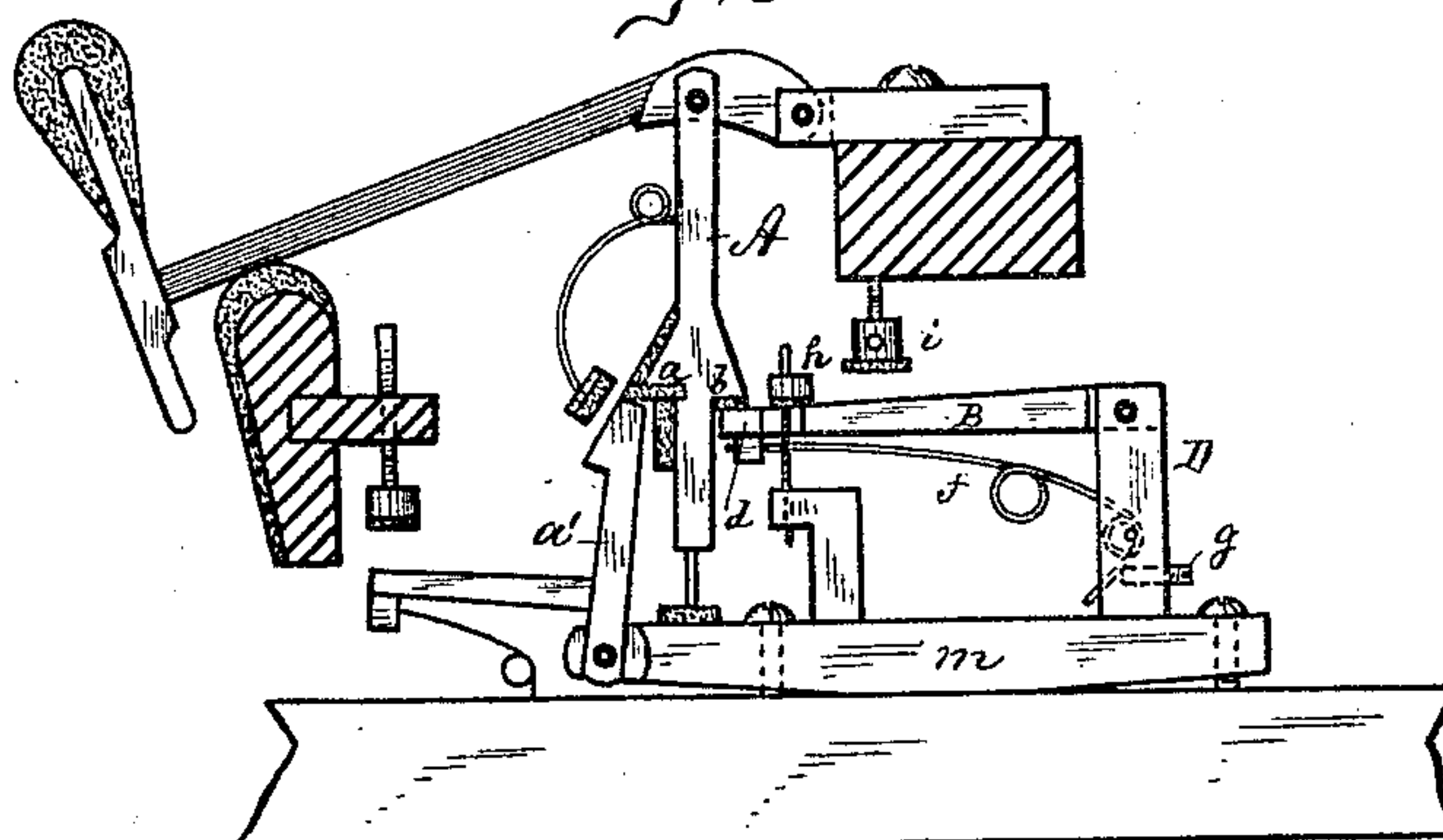
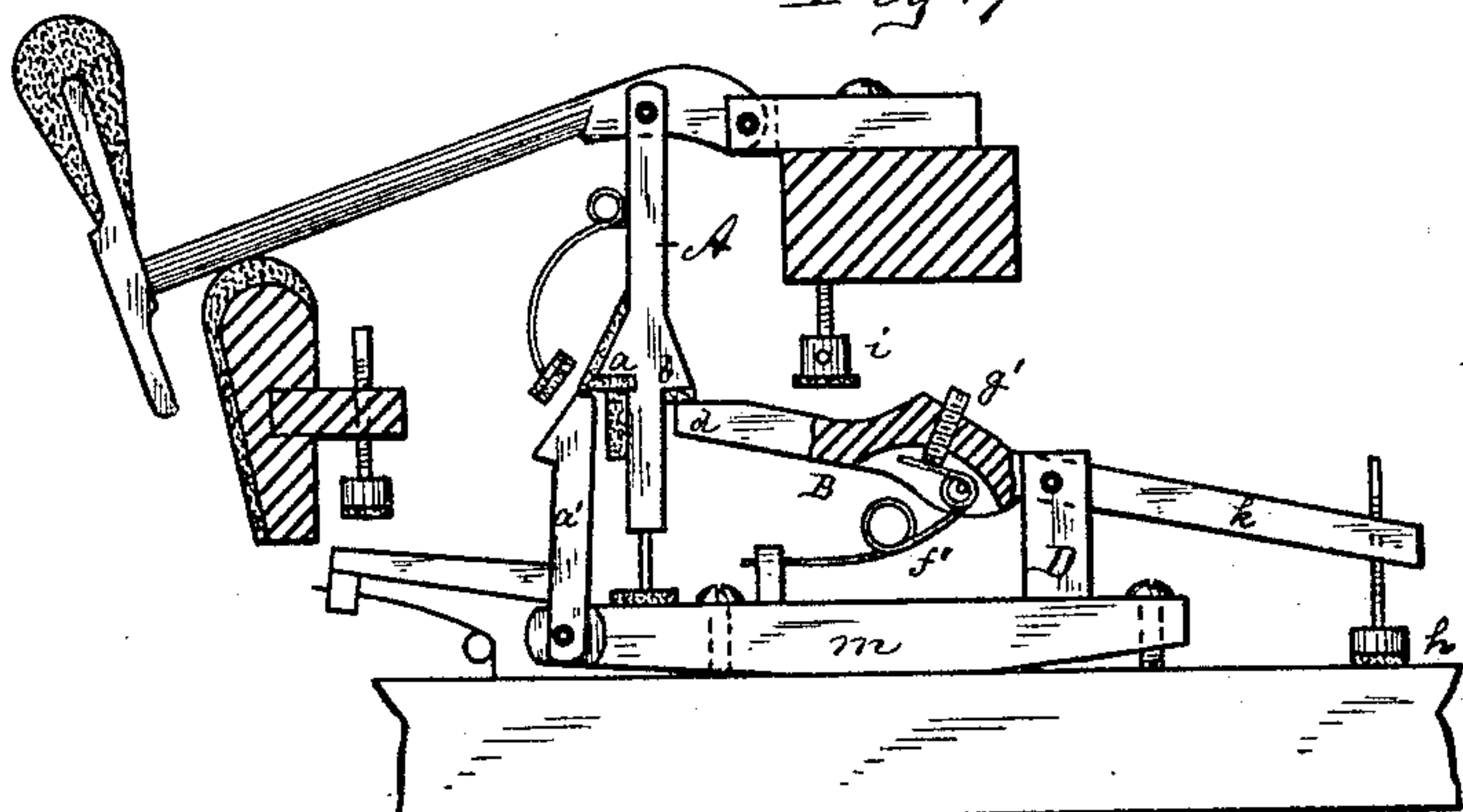


Fig: 7



Witnesses:
William Schulz.
John Becker

Inventor:
Julius Blüthner
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UNITED STATES PATENT OFFICE.

JULIUS BLÜTHNER, OF LEIPSIC, GERMANY.

REPEATING-ACTION FOR GRAND PIANOS.

SPECIFICATION forming part of Letters Patent No. 543,370, dated July 23, 1895.

Application filed March 7, 1895. Serial No. 540,835. (No model.)

To all whom it may concern:

Be it known that I, JULIUS BLÜTHNER, of Leipsic, in the Kingdom of Saxony, Germany, have invented a new and useful Improvement in Repeating-Actions for Grand Pianos, of which the following is a specification.

This invention relates to a repeating-action for grand pianos, which is designed to lessen the strain on the rocker by means of a lever that catches and supports the abstract. In this way the abstract, and consequently the hammer-stroke, may be delicately adjusted with particular reference to the individual tones.

In the accompanying drawings, Figure 1 is an elevation of my improved action, showing the key raised. Fig. 2 is an end view thereof; Fig. 3, a plan thereof; Fig. 4, an elevation showing the position of the parts when the hammer strikes the string; Fig. 5, an elevation showing the position of the parts at the fall of the hammer. Figs. 6 and 7 are elevations of modifications.

The letter A represents the abstract of a grand action provided with the noses *a* *b* at opposite sides. The nose *a* is engaged by the jack *a'*, pivoted to the rocker *m*. The nose *b* is engaged by the free end *d* of a divided lever B, secured to a rail C and acted upon by a spring *f*. This spring is connected to an arm D of rocker *m* and is engaged by an adjusting-screw *g*, so that its tension, and consequently the force with which it bears against the lever *b*, may be regulated.

The upward motion of the lever B is checked by a regulating-button *h* or by a button *i* depending from the hammer-rail.

With my improved action the hammer is rapidly caught, and the key is relieved to such

an extent that the light touch necessary for repeating may be effectively practiced.

The lever B will catch the abstract during the descent of the latter and support it yieldingly by means of the spring *f*, which should be adjusted according to the size or weight of the hammer. By thus intercepting the abstract, and consequently the hammer, the jack will always be brought positively and quickly under its nose *a* and the hammer will by the button *h* be always held at the proper distance from the string. Moreover, the key is greatly relieved, a graceful touch is invited, and a proper regulation of all the parts may be easily effected.

In Fig. 6 the lever B is shown to be pivoted to the arm D of the rocker *m*. In Fig. 7 it is also pivoted to such arm D and is provided with an extension *k* that carries a regulating-button *h'*. This button engages the key and replaces the button *h*. The spring *f'* is in this modification secured to the lever B itself and is regulated by an adjusting-screw *g'*, likewise carried by such lever.

What I claim is—

The combination of an abstract having a pair of noses with a jack engaging one of said noses, a lever engaging the other nose, an adjustable spring for supporting the lever and a regulating button for limiting the play of the lever, substantially as specified.

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

JULIUS BLÜTHNER.

Witnesses:

MAX MATTHAI,

OTTO DOEDERLEIN.