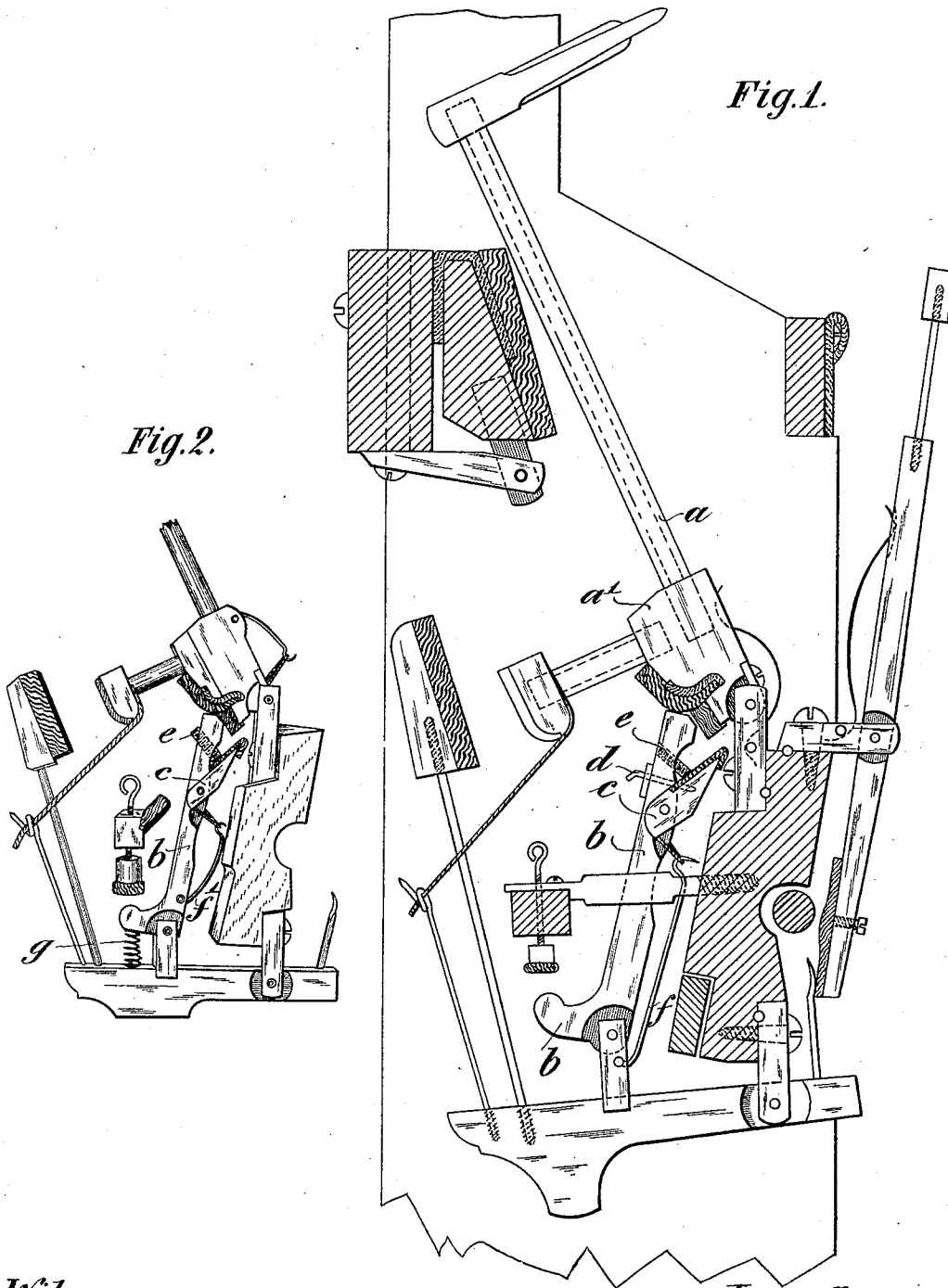


(No Model.)

H. MAURER.
REPEATING MECHANISM FOR PIANOFORTES.

No. 519,611.

Patented May 8, 1894.



Witnesses.
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UNITED STATES PATENT OFFICE.

HEINRICH MAURER, OF CARLSRUHE, GERMANY.

REPEATING MECHANISM FOR PIANOFORTES.

SPECIFICATION forming part of Letters Patent No. 519,611, dated May 8, 1894.

Application filed June 24, 1893. Serial No. 473,729. (No model.) Patented in Germany May 3, 1892, No. 66,171.

To all whom it may concern:

Be it known that I, HEINRICH MAURER, a subject of the Grand Duke of Baden, residing at Carlsruhe, in the Grand Duchy of Baden, German Empire, have invented a certain new and useful Improved Repeating Mechanism for Pianofortes, (for which I have obtained a patent in Germany, No. 66,171, dated May 3, 1892,) of which the following is a full, clear, and exact description.

The object of the present invention is to construct the jack or escapement lever of pianofortes in such manner as to obtain a more perfect repetition than has hitherto been the case. The reason why almost all repetition mechanisms and devices have hitherto proved to be more or less inadequate, is that they do not enable the jack to get back into position underneath the hammer block, before the hammer has fallen back into its position of rest, after the key has been released. In order to provide a device which shall enable perfect repetition, it is absolutely necessary that the jack be caused to fall into position underneath the hammer block (ready for the next blow) before the hammer has fallen back into its position of rest.

I have attained this object by means of my invention, which consists in providing the jack near its top, with a pivoted spring lever, adjusted by means of a stop, to project underneath the hammer block, but not to contact with the same when the jack is in position thereunder. This lever operates to retain the hammer by catching underneath the block just at the moment when the same is falling back after the jack has been disengaged therefrom, and thus preventing the hammer from regaining its position of rest, before the said jack has come into position underneath the hammer block.

In order to make this specification more easily intelligible, reference is had to the accompanying drawings, forming part of the same and in which similar letters of reference denote similar parts throughout both views.

Figure 1 is a side elevation showing my improvement in connection with a pianoforte mechanism. Fig. 2 is a similar part elevation showing a modified form of carrying out my invention.

The jack *b* is provided with a pivoted lever *c* at its upper end, having its longer arm projecting under the block *a'* of the ham-

mer *a*, and being held against its adjustable stop or set screw *e* by means of the jack spring *f* attached to the shorter end of the said lever *c* by a band. The hook *d* serves to limit the movement of the lever *c* in the opposite direction and simultaneously obviates the necessity of the protecting batten hitherto employed.

The device operates in the following manner:—When the jack *b* has been disengaged from under the hammer block *a'* and the hammer is about to fall back into its position of rest, the lever *c* catches underneath the said hammer block and detains it until the jack has had time to regain its proper position underneath said block. As soon as this has taken place the lever *c* ceases to contact with the block *a'*.

In the modification shown in Fig. 2, the hook *d* is dispensed with and the lever *c* is not actuated by the jack spring, but by an independent spring *f'*, while the jack is provided with a spring *g* arranged underneath its rearwardly projecting arm.

The operation of this device is substantially the same as described with reference to Fig. 1 and I have found this latter arrangement to be simpler and more efficient in the practice.

It will be observed that the great advantage of my present invention, is that it can easily be applied to all pianos at present in use without causing much extra expense.

I claim as my invention—

1. The combination with a jack *b* of a fly jack *c* pivoted thereto at the upper end of said jack, a stop *e* on said jack above the fly jack and a spring *f* operating to normally hold said fly jack against said stop in the manner and for the purpose substantially as described.

2. The combination of a jack *b*, a fly jack *c* pivoted thereto as specified, a stop *e* on said jack above the fly jack and a spring *f* mounted at the lower part of said jack and operating to normally retain the fly jack against the jack substantially as described and shown.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HEINRICH MAURER.

Witnesses:

FRIEDRICH MARK,
FRIEDRICH DIETZ.