L. N. SOPER.

PIANO ACTION.

APPLICATION FILED OCT. 16, 1908.

924,394. Patented June 8, 1909.

Fig. 1.

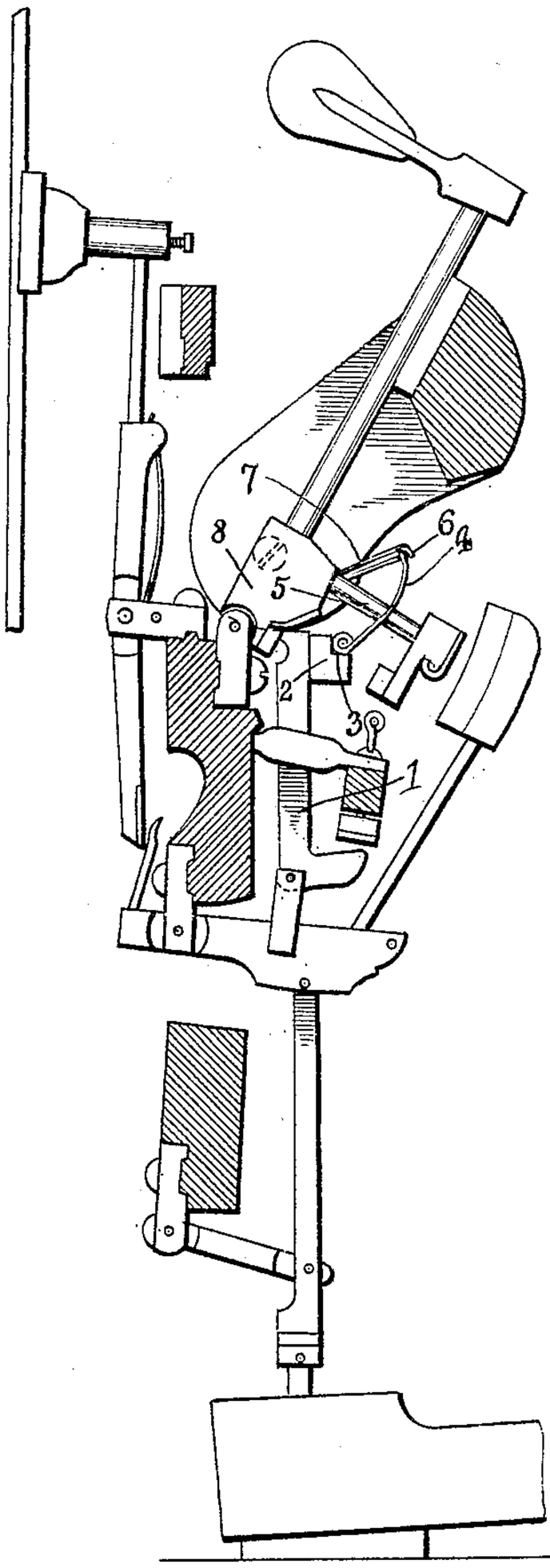


Fig. 2.

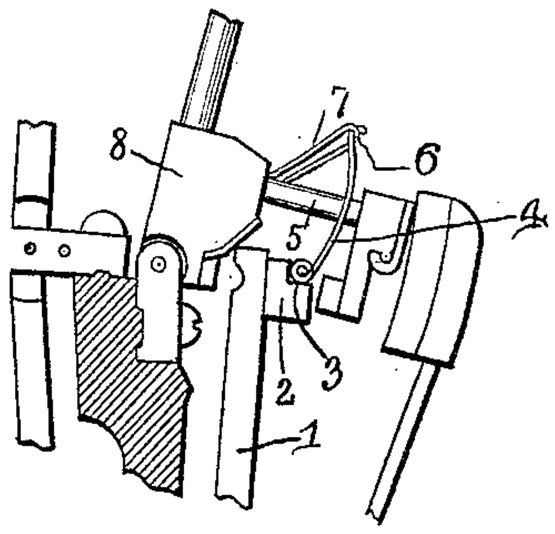


Fig. 3.

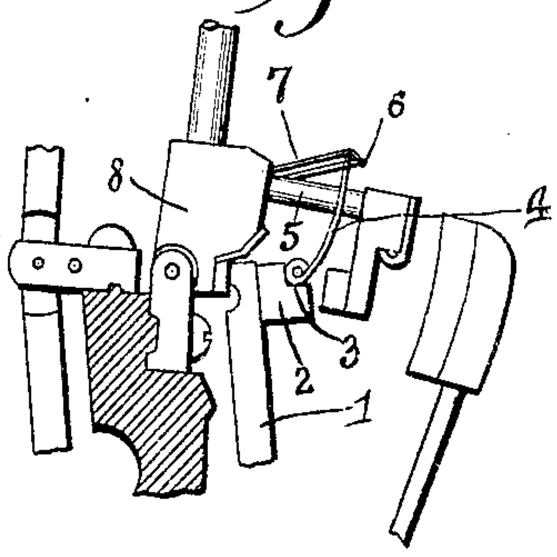
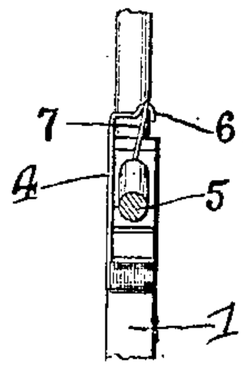


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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PIANO-ACTION.

No. 924,394. Specification of Letters Patent. Patented June 8, 1909.

Application filed October 16, 1908. Serial No. 458,046.

To all whom it may concern:

Be it known that I, LEWIS N. SOPER, a subject of the King of Great Britain, residing at Guelph, in the Province of Ontario and Dominion of Canada, have invented a certain new and useful Piano-Action, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to piano actions, the object in view being to simplify and improve the construction illustrated and described in my former patent dated April 2, 1907, No. 849,278.

The chief aim of this invention is to provide an action which will give the rapid and positive repeating of the grand piano while retaining lightness of touch and not increasing the cost of production.

With the above general object in view, the invention consists in the novel construction, combination and arrangement herein fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a vertical section through an upright piano action embodying the present invention, showing the parts in their normal positions. Fig. 2 is a similar view of the parts adjacent to the hammer butt and jack showing the position said parts assume when the hammer is at check. Fig. 3 is a similar view of the parts shown in the positions they occupy immediately after the jack reseats itself under the hammer butt. Fig. 4 is a detail vertical section taken at right angles to the other figures and passing through the counter-check shank.

The improvement consists in providing the jack 1 with a lug 2 which forms a spring seat, said lug being provided for the purpose of obtaining a connection between the reseating spring hereinafter referred to and the jack which will be productive of the requisite tension of the spring and its action on the hammer butt and jack.

The lug 2 is notched out or rabbeted, as shown at 3, to form a two sided seat for the coiled extremity of the spring 4, the coiled portion of which bears against the two right angularly disposed walls of the notched seat, as clearly shown in the drawings, while one extremity of the spring is driven or inserted in the lug 2 to form a suitable anchorage or fastening expedient for one end of the spring.

The spring curves outward and upward from the base coil and is bent to extend transversely across and over the top of the counter-check shank 5, terminating in a hook 6 from which a flexible strand or loop 7 extends to the hammer butt 8 to which it is fastened immediately over the counter-check shank, as illustrated in Figs. 1, 2 and 3.

With the spring formed and arranged as illustrated and described, when the hammer is at check after the stroke, the plane of the loop or flexible strand 7 will be through the axis of movement of the hammer butt, and when the key is released, the lifting action of the spring on the butt and the pushing action of the jack against the butt insure the instant reseating of the jack, resulting in a rapid repeating action which is more rapid than the ordinary horizontal grand action. The spring referred to is a substitute for the hammer spring and also for the jack spring in the ordinary action. It will be apparent that the construction involved does not add in the slightest to the cost of production of the complete piano action.

Having described the invention, what I claim is:—

An upright piano action comprising a counter-check with shank, a hammer butt, a jack, a lug on the upper end of the jack, a spring having one end connected to the lug and thereby offset from the jack and its free end extending above the plane of the countercheck-shank, and a flexible connection located above the countercheck-shank and having one end attached to the free end of the spring and its opposite end connected to the hammer butt.

In testimony whereof I affix my signature in presence of two witnesses.

LEWIS N. SOPER.

Witnesses:
E. H. DUNBAR,
MAUDE KENNEDY.