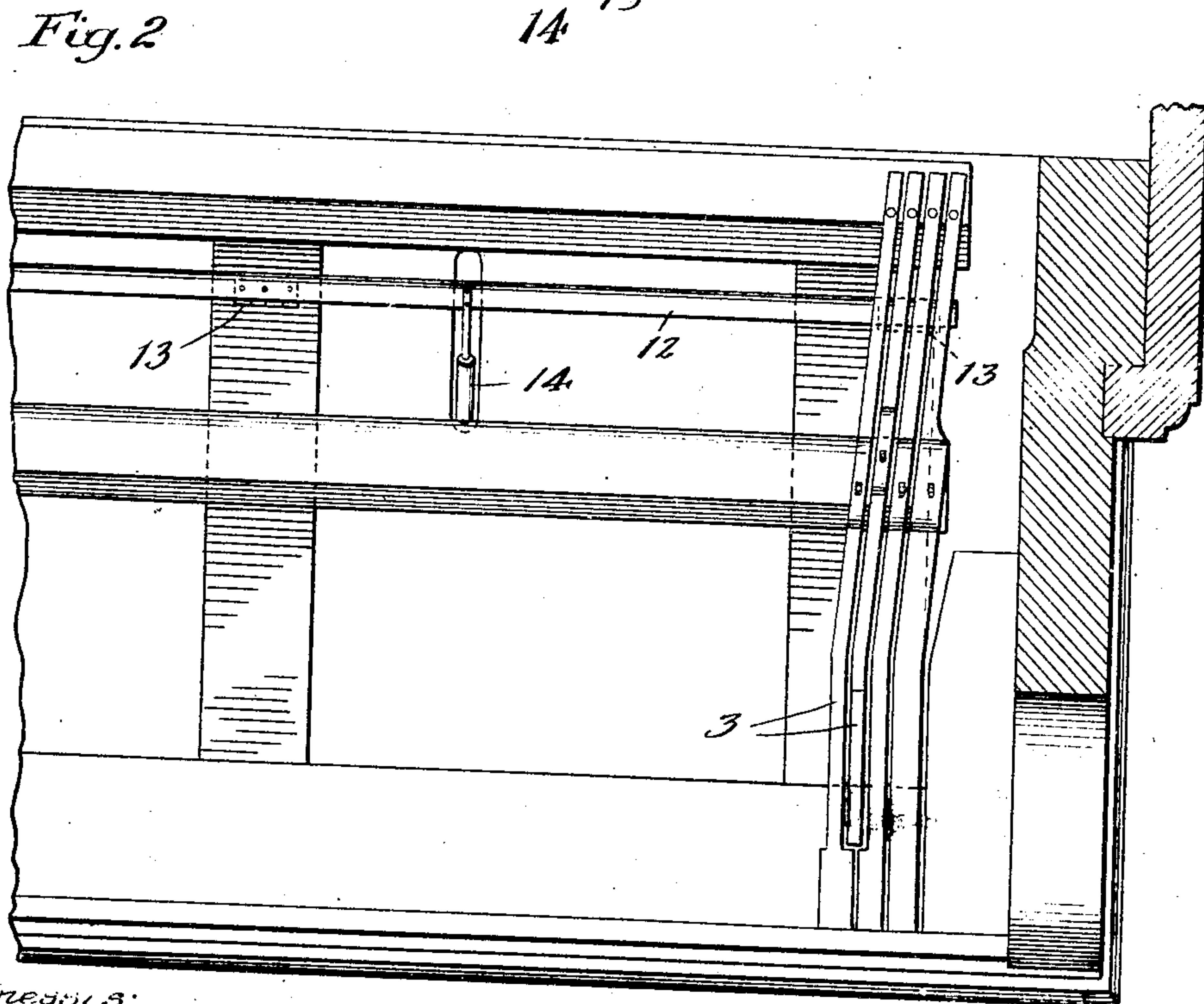
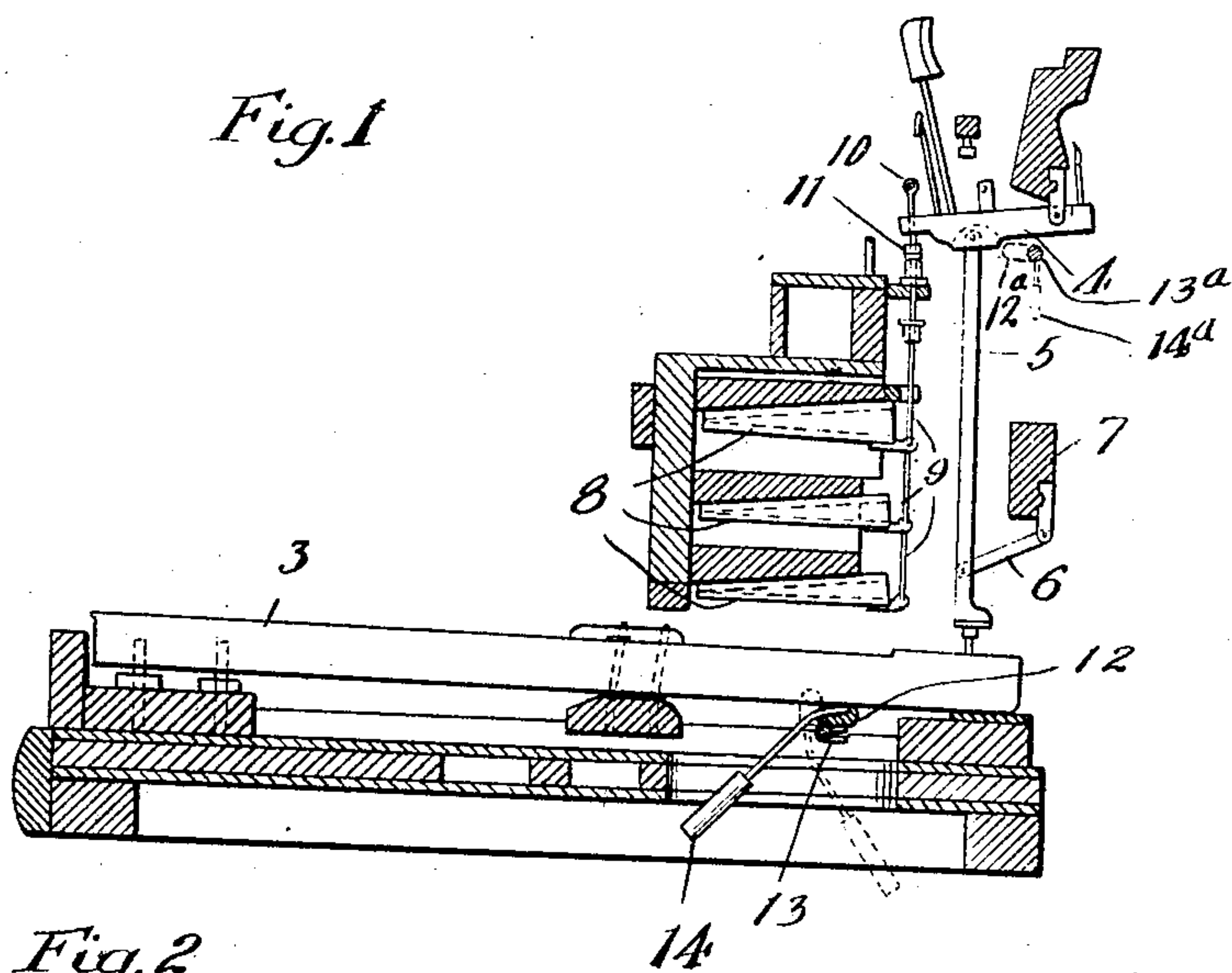


E. C. HISCOCK.
 MEANS FOR PREVENTING INTERFERENCE IN ASSEMBLING SELF PLAYING PIANOS.
 APPLICATION FILED SEPT. 25, 1908.
 913,137.
 Patented Feb. 23, 1909.



Witnesses:
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UNITED STATES PATENT OFFICE.

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MEANS FOR PREVENTING INTERFERENCE IN ASSEMBLING SELF-PLAYING PIANOS.

No. 913,137.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed September 25, 1908. Serial No. 454,768.

To all whom it may concern:

Be it known that I, EMORY C. HISCOCK, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Means for Preventing Interference in Assembling Self-Playing Pianos, of which the following is a specification.

In self playing pianos, it is customary to arrange the pneumatically operated lifters whereby the piano action is actuated, directly under the forward ends of that part of the piano action, variously known among piano manufacturers as the wippen or jack whip, the wippen being provided with vertical adjusting screws whereby the contact with the lifters may be regulated. The bottom of the adjusting screws, are customarily covered with leather or felt disks in order to cushion the contact between them and the lifters, and render it noiseless.

In assembling the pneumatic action and the piano action, difficulty has heretofore been caused by the interference which it is very difficult to prevent, between the lifters and the wippens, and by which the cushioning disks are very apt to be knocked off the screws, thus necessitating laborious repairs. To obviate this difficulty has been my object in the present invention, the nature of which is fully set forth below.

In the accompanying drawing, Figure 1 is a partial vertical section of a self playing piano embodying my improvement, and Fig. 2 is an enlarged horizontal section, from which the pneumatic action and the piano action have been omitted.

In said drawing, 3 represents the keys of the piano, 4 one of the wippens connected to the corresponding key by the extension 5, the latter having an arm 6 joined to a stationary rail 7 and serving to regulate the movements of the extension. The pneumatics by which the hammers of the piano action are caused to strike the strings are shown at 8, and each is provided with a lifter 9. This lifter is normally very close to or perhaps in actual contact with the ad-

justing screw 10 with which the corresponding wippen is provided, and which is provided with a cushioning disk 11 of leather or other soft material, usually secured to it by cement or other adhesive.

To obviate the interference in assembling the lifters with the screws 10, and their cushioning disks 11, I place immediately under the series of keys a bar 12 of rectangular shape in cross section and hinge the same near one of its edges by hinges 13 to a stationary part of the key bed, and attach to the bar a lever or handle 14 by which it may be rocked on said hinges. By moving this lever from the full line to the dotted position of Fig. 1, it will be seen that the bar 12 will be rocked so that it will lift the series of keys above their normal positions somewhat, and in so doing, the wippens will also be lifted sufficiently to clear the lifters and thus allow the positioning of the lifters without any interference of the kind mentioned. It is of course only necessary to retain the lifting bar in this position during the time occupied in positioning the pneumatic action in the instrument.

Instead of locating the bar 12 under the keys as above described, I attain the same result by arranging a bar 12^a similar to the bar 12 under the series of wippens as indicated in dotted lines in Fig. 1. This bar is located in such relation to the wippens that when it is rocked on its hinges or pivots 13^a by the handle 14^a, it will raise the wippens from their normal positions sufficiently to prevent the interference mentioned.

I claim:—

The combination in an automatic piano of the ordinary piano action for manual playing, a pneumatic action for automatic playing, and means whereby the wippens of the piano action may be raised temporarily to avoid interference with the pneumatic action while positioning the latter.

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Witnesses:

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