

UNITED STATES PATENT OFFICE.

RICHARD EASTWOOD, OF COLNE, ENGLAND.

PIANO-ACTION.

No. 882,302.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed August 4, 1906. Serial No. 329,184.

To all whom it may concern:

Be it known that I, RICHARD EASTWOOD, a subject of the King of Great Britain and Ireland, and residing and having a post-office address at 14 Albert road, Colne, in the county of Lancaster, England, have invented new and useful Improvements in Piano-Actions, of which the following is a specification.

10 This invention relates to improvements in the action of upright pianos of the check and counter-check type and relates especially to the invention described in the specification of my Patent 825,202, dated July 3, 1906.

15 The object of my present invention is to provide equally efficient means yet simpler than heretofore used to render possible the very rapid repetition of a single note with perfect action.

20 In the accompanying drawings Figure 1 is a side view of the action in a piano such as hereinbefore named with my invention applied; Fig. 2 is a front view of the same. In these views the hammer is shown at rest; 25 Fig. 3 is a side view of the same action showing the relative positions of the several parts when the hammer is touching the wires; and Figs. 4, 5, 6 and 7 show slight modifications.

The same letters refer to like parts in the 30 several views.

In the construction covered by my patent above referred to, I accomplished the desired end by interposing between the check and counter-check a block of sufficient size 35 pivoted to one or the other of said pieces, whereby the length of the rebound of the hammer after a stroke was greatly shortened in case the key was only partially released, and the player was thereby enabled to repeat 40 the note with great rapidity and with perfect action although not giving a full stroke of the key to actuate the hammer. The same object is now accomplished by me through simpler means. Instead of using an 45 interposed block, I connect a spring wire d to the counter-check c^2 and secure to the lower end of said wire a plate d^1 that is of about the same width as the check e , and in such a position that its face or the lower portion thereof is in contact with the face of the 50 check e , but is below the countercheck c^2 when the hammer j is striking the wires, and the faces of the countercheck c^2 and the

check e are in contact, as shown in Fig. 3, so that it is not nipped between the said countercheck and the check, but is pressing 55 against the face of the check. It will be seen at once that the action of the spring plate is not only to oppose the rebound of the hammer after a stroke, (and the greater 60 the opposition the further the hammer rebounds) but also to give added impulse to the forward movement of the hammer on a new stroke. The function of the block previously used is thus in great part secured, 65 while a new advantage is attained which my previous construction wholly lacked.

I do not confine myself to any precise manner of fixing said spring plate d^1 ; the countercheck c^2 may be formed so that the spring or 70 springs d may be attached to the bottom of said countercheck, and the plate d^1 above, as in Fig. 4, or said wire or wires may be attached to the check e and the plate press 75 against the face of the countercheck c^2 , as in Figs. 5 and 6, the relative positions of the plate and the countercheck c^2 and the check being the same. In connection with this construction, I also fit a spring wire g to the 80 butt c in such a position that its free end g^x will press against a bar or stop as f when the hammer strikes the wires and thereby assist its return after the note is struck; the positions of said spring wire g and bar f may be 85 varied as shown in Fig. 7, but have the same action.

I claim as my invention

1. A piano action comprising a check and a countercheck, a plate and means whereby said plate is supported in engagement with 90 one of said parts during their approach to each other but moves out from between said parts before the latter impinge against each other, as and for the purposes described.

2. A piano action comprising a check and 95 a countercheck, a plate and means whereby said plate is supported on one of said parts so as to engage the other during their approach to each other but moves out from between 100 said parts before the latter impinge against each other, as and for the purposes described.

3. In upright pianos, the combination with a check and countercheck having an interposed spring-actuated part, and a hammer butt and rest, of a spring secured to said 105 hammer butt and adapted to engage the

hammer rest on the striking movement of the hammer.

4. In upright pianos, the combination with the hammer butt and rest, of a spring secured to said butt and adapted to engage the hammer rest on the striking movement of the hammer.

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

RICHARD EASTWOOD.

Witnesses:

THOS. PRESCOTT,
J. ERNEST HUGHES.