(No Model.)

M. STEINERT.

PIANO ACTION.

No. 566,808. Patented Sept. 1, 1896.

Fig. 1.

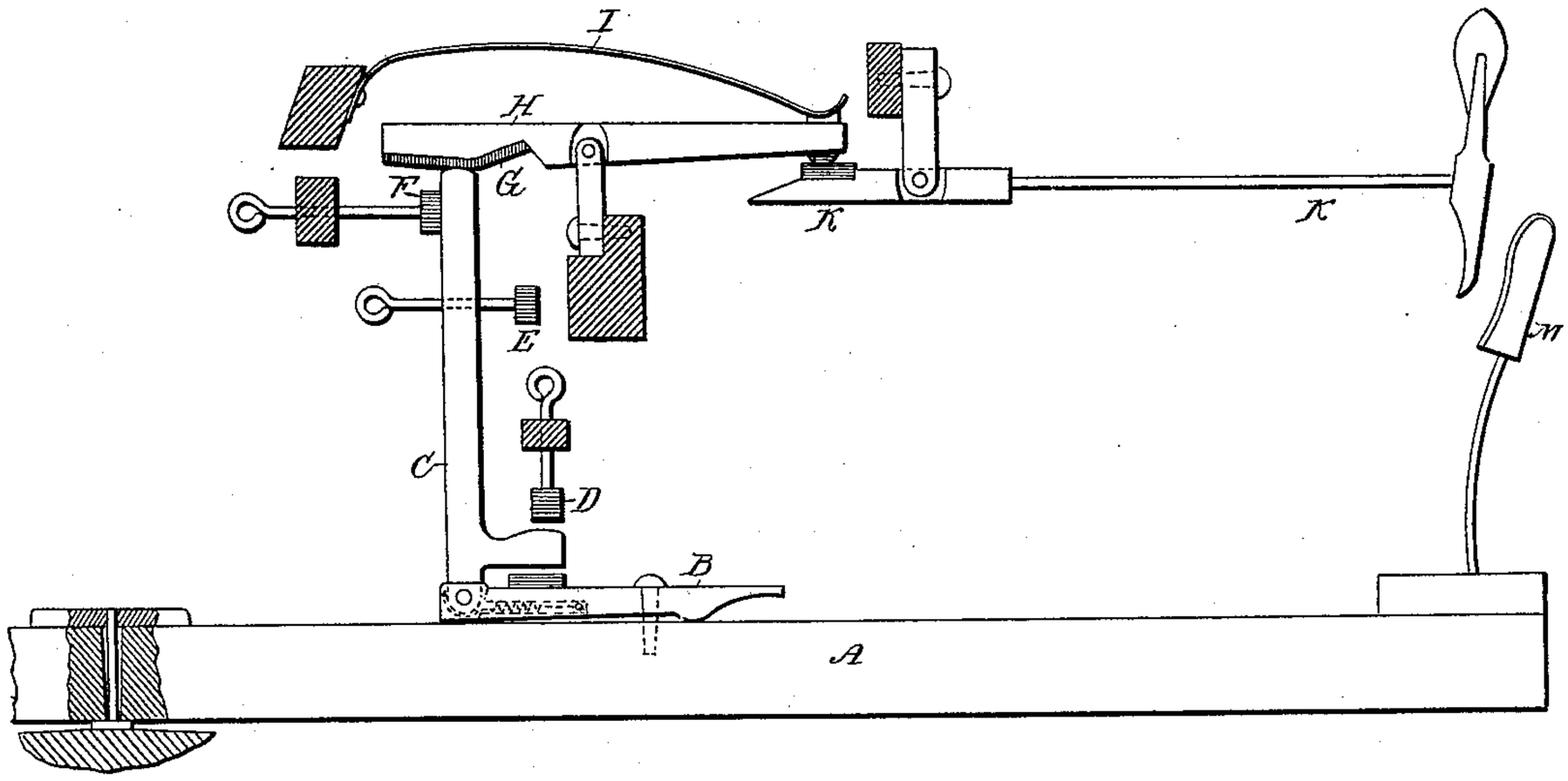
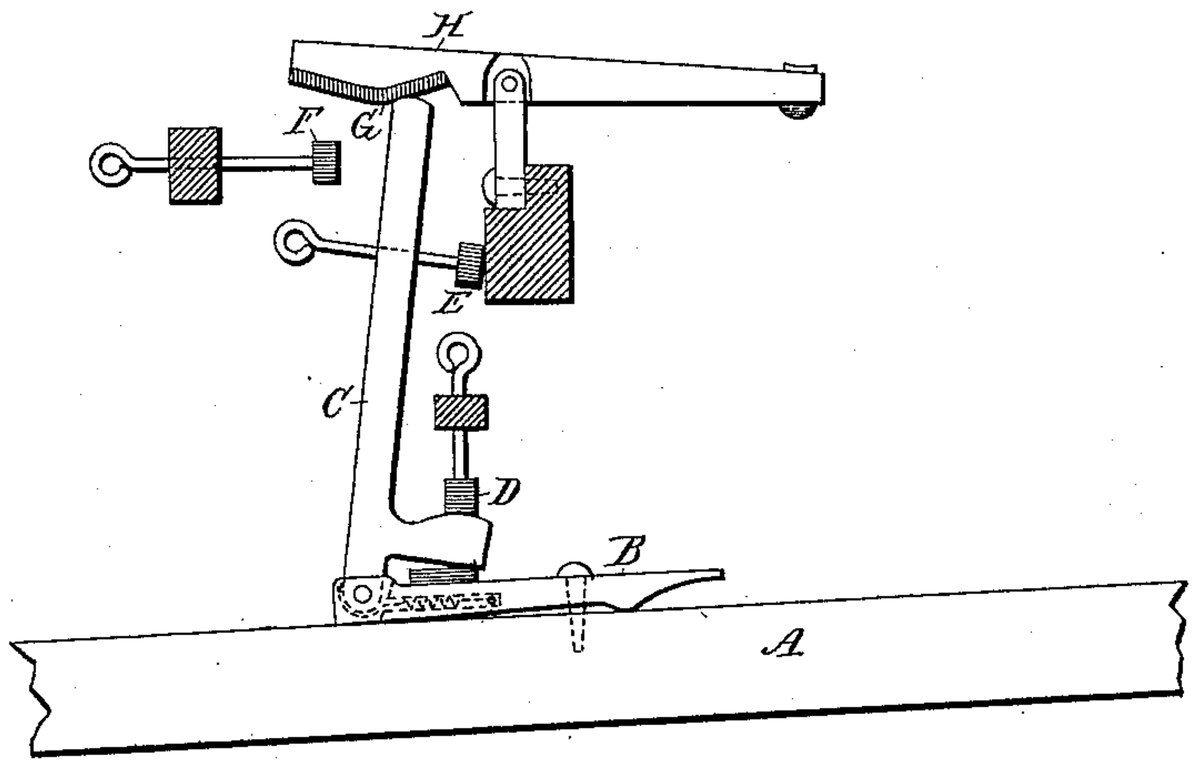


Fig. 2.



Witnesses
Chas. B. Shumway
Edward H. Rogers.

Inventor
Morris Steinert
by John K. Beach atty

UNITED STATES PATENT OFFICE.

MORRIS STEINERT, OF NEW HAVEN, CONNECTICUT.

PIANO-ACTION.

SPECIFICATION forming part of Letters Patent No. 566,808, dated September 1, 1896.

Application filed February 4, 1896. Serial No. 578,025. (No model.)

To all whom it may concern:

Be it known that I, MORRIS STEINERT, of the city and county of New Haven, State of Connecticut, have invented a new and useful Improvement in Grand-Piano Actions, of which the following, when taken in connection with the drawings hereto annexed, is a specification.

My invention consists in the construction and arrangement of the parts herein described, whereby escapement is effected without losing control of the jack over the hammer and without deranging the operative connection of the train of levers by which motion is conveyed from the hammer to the key.

The advantages of my construction are that it does away with the necessity of supplemental devices for holding up the hammer to permit of its reëngagement with the jack after escapement; that the hammer is more delicately under the control of the performer, and that the quickness of repetition is unlimited.

In the drawings, Figure 1 represents a side view of the action; Fig. 2, a partial view showing the relation of the parts when the hammer is in its escaped position.

Similar letters indicate like parts in each of the figures.

A is the key; B, the fly; C, the jack; D, the adjustable trip-stop, and E and F regulating-screws limiting the lateral play of the jack.

H is a lever intermediate between the jack and the hammer K.

That part of the lever on which the jack acts is peculiarly shaped, as shown in the drawings at G, so as to present two surfaces slightly inclined to each other and forming an obtuse angle G, over which the end of the jack slides when tripped by the stop D and permits the hammer to fall back slightly after the apex of the angle G is passed.

In the escaped position (shown in Fig. 2) the jack still remains in operative connection with the lever H, and the slightest retraction of the key will enable a proportionate impulse to be given to the hammer, whether or not the retraction is sufficient to restore the jack to its original position with reference to the angle G.

The jack and trip-stop are so arranged that when the jack is tripped its upper end moves toward the center of motion of the lever H, and this is preferable for two reasons: first, that when the key is partly depressed a slight movement of the key will control a larger movement of the hammer than it would if the jack moved away from the center of motion of the lever H; second, that as the lever H is tilted out of its horizontal plane by the depression of the key the angular resistance offered to the return movement of the jack is decreased instead of increased. Fig. 2 illustrates this and shows that in proportion as the key is depressed the inside surface of the angle G becomes more nearly horizontal.

By means of the regulating-screws E and F the initial and final positions of the jack with reference to the angle G can be adjusted with great nicety.

What I claim, and desire to secure by Letters Patent, is—

1. In a piano-action, the combination of the pivoted hammer K, the pivoted lever H provided with the obtuse-angled escapement G, and the jack C arranged to be tripped so that its upper end moves over the angle G when the key is depressed, all substantially as and for the purpose described.

2. In a piano-action, the combination of the pivoted hammer K, the pivoted lever H provided with the obtuse-angled escapement G, the jack C arranged to be tripped so that its upper end moves over the angle G and toward the center of motion of the lever H when the key is depressed, and the regulating-screws E and F, all substantially as and for the purpose described.

MORRIS STEINERT.

Witnesses:
EDWARD H. ROGERS,
JOHN K. BEACH.