

(No Model.)

F. W. HEDGELAND.
SELF PLAYING KEYBOARD INSTRUMENT.

No. 547,953.

Patented Oct. 15, 1895.

FIG. 1.

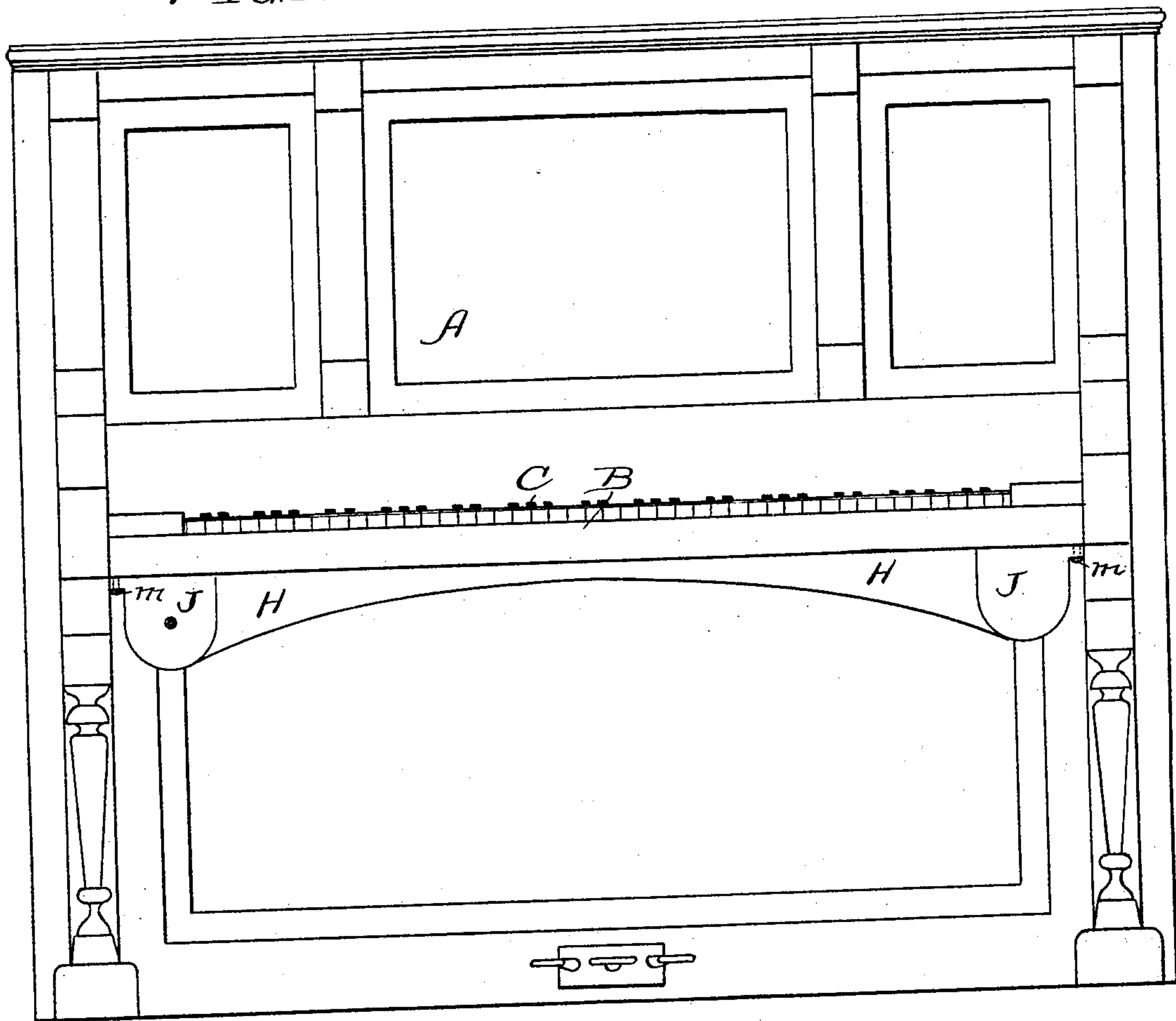
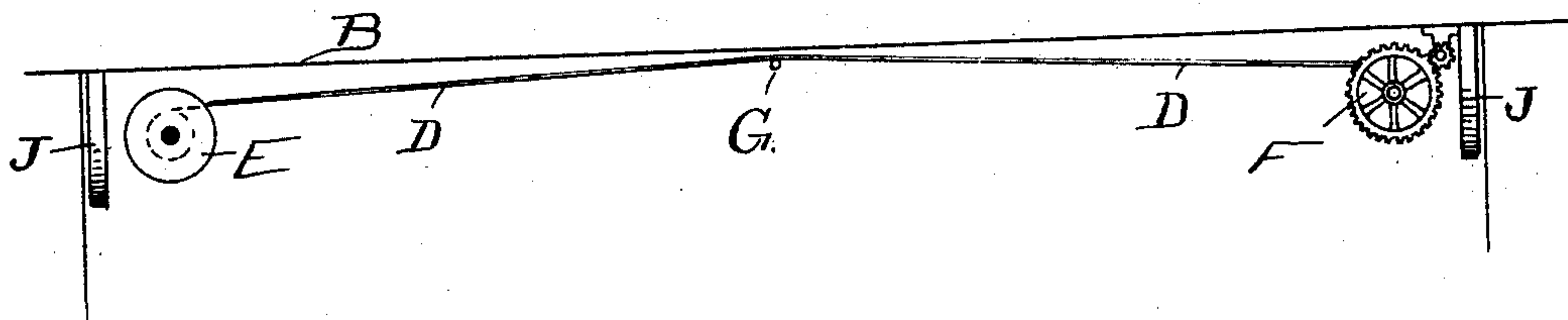


FIG. 2.



WITNESSES:

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INVENTOR:

FREDERICK W. HEDGELAND

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HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK W. HEDGELAND, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE
W. W. KIMBALL COMPANY, OF SAME PLACE.

SELF-PLAYING KEYBOARD INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 547,953, dated October 15, 1895.

Application filed February 23, 1894. Serial No. 501,155. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. HEDGELAND, 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 Self-Playing Keyboard Instruments, of which the following is a specification.

This invention relates to self-playing keyboard instruments employing a movable perforated strip or belt for controlling the key-actuating mechanism, and its object has been to apply the perforated strip to existing styles of pianos and organs in such manner as to necessitate no change in either the size, shape, or general construction of the instrument or its case and as not to disfigure or materially change the appearance of the case.

To this end I locate the moving perforated strip immediately beneath the keyboard of the instrument, with the drums carrying the strip placed below the ends of the keyboard, substantially as hereinafter set forth. The strip and its drums may be covered or concealed, if desired, so that no portion of the mechanism will be visible.

The nature of my improvement is fully described in the accompanying drawings, wherein—

Figure 1 is an elevation of a self-playing instrument embodying my invention. Fig. 2 is a partial elevation with the strip and its drums exposed.

In said drawings, A represents the case of an ordinary upright piano, which may, however, for the purpose of this application, stand as a type of the general class of keyboard instruments to which the invention is applicable.

B is the keyboard, and C represents the keys. Immediately below the keyboard, which in the case illustrated projects in front of the case, I place the moving perforated strip D and its drums E and F under the ends of the board, E being the unwinding-drum and F the driven or winding drum. The extended portion of the strip beneath the keyboard is supported by a rod or roller G, located under the center of the board and as close under the bottom thereof as possible, so that the extended portion of the strip may not sag or drop. By thus

locating the drums and supporting the strip between them I avoid any necessity for adding more than an inch, or thereabouts, to the vertical dimensions of that portion of the keyboard under which space is needed for the knees of the player or players seated at the instrument for manual playing. I am better enabled to economize in the amount of space thus used by the strip and its supports by drawing the strip from and winding it on the upper side of the drums, as shown. Of course it will be understood that the strip at some point between the drums passes devices whereby it controls the self-playing mechanism; but abundant room for such devices may be formed in proximity to either drum, and as such devices form no portion of the present invention I have not thought it necessary to illustrate them. I prefer to conceal by suitable means the strip and its drum and supports, and for this purpose may use an apron H and doors J. The lower edge of the apron is arched, so that it may occupy no more vertical space than is needed to cover the strip and present a graceful outline, and doors J, which are in front of the drums, may be hinged at *m*, so that they can be opened, as shown, to permit changes of the strip.

With my invention the strip is so placed as not to interfere with the knees of players using the piano and so as not to affect or require any change in the general construction of the instrument-case or to affect its general appearance, and should one of the strips be stretched between the drums when the instrument is used for manual playing it is held up out of contact with the knees of the player. The strip is also rendered easy of access and readily changed.

I claim—

1. The combination with a keyboard instrument, of a movable perforated strip for controlling the automatic playing mechanism, and drums, one at each end of the keyboard, upon which the strip is wound in such manner that the strip extends from the top of one drum to the top of the other, both the strip and drums being located under the keyboard, whereby a central space is left between the drums to accommodate the knees of the player, substantially as specified.

2. The combination with a keyboard instrument, of a movable perforated strip for controlling the automatic playing mechanism, drums, one at each end of the keyboard, upon
5 which the strip is wound in such manner that the strip extends from the top of one drum to the top of the other, and a casing or covering for said strip and drums, arched or elevated at the central portion, said strips, drums and casing being located underneath the key- 10 board, whereby a central space is left between the drums to accommodate the knees of the player, substantially as specified.

FREDERICK W. HEDGELAND.

Witnesses:

H. M. MUNDAY,
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