

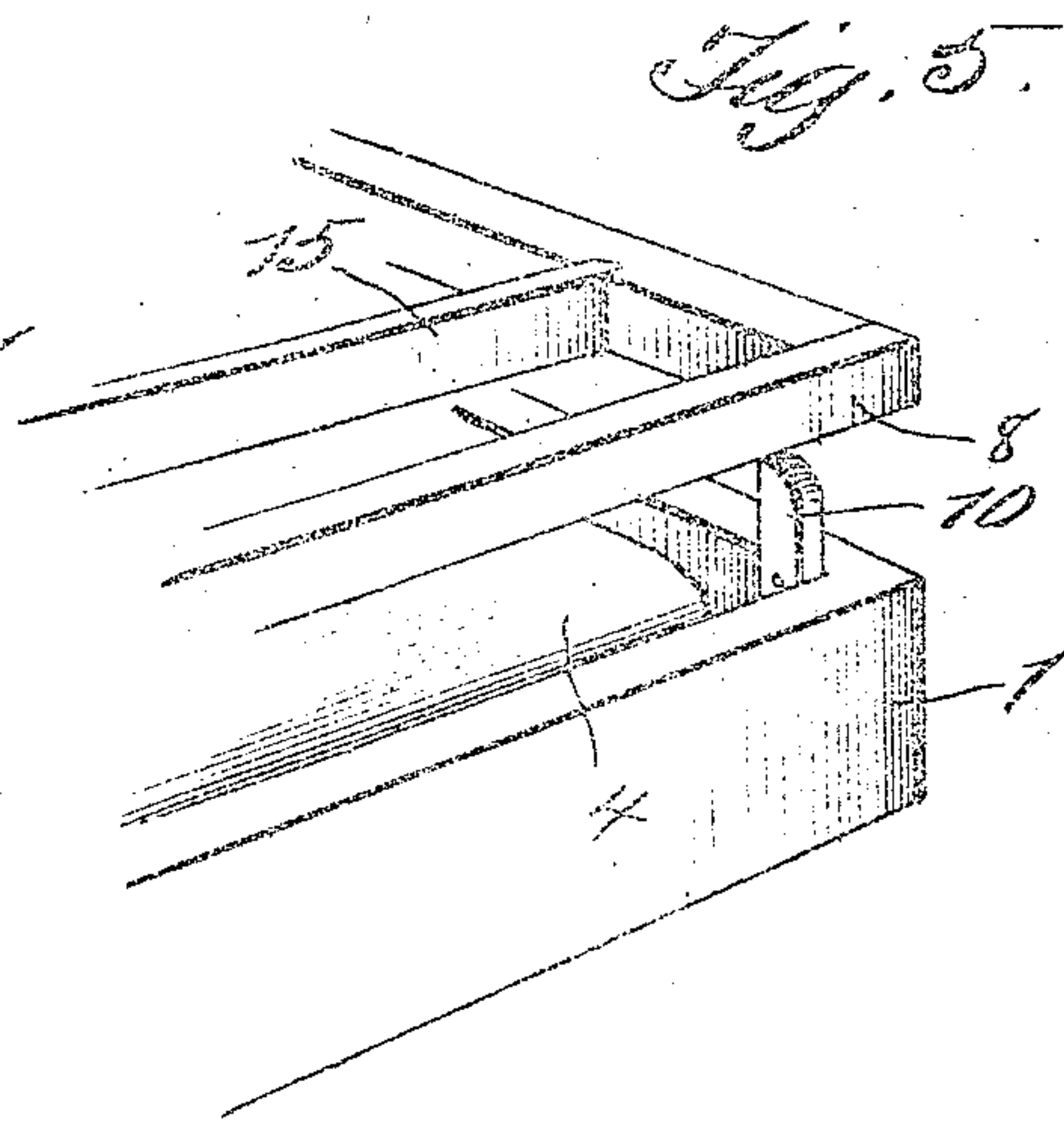
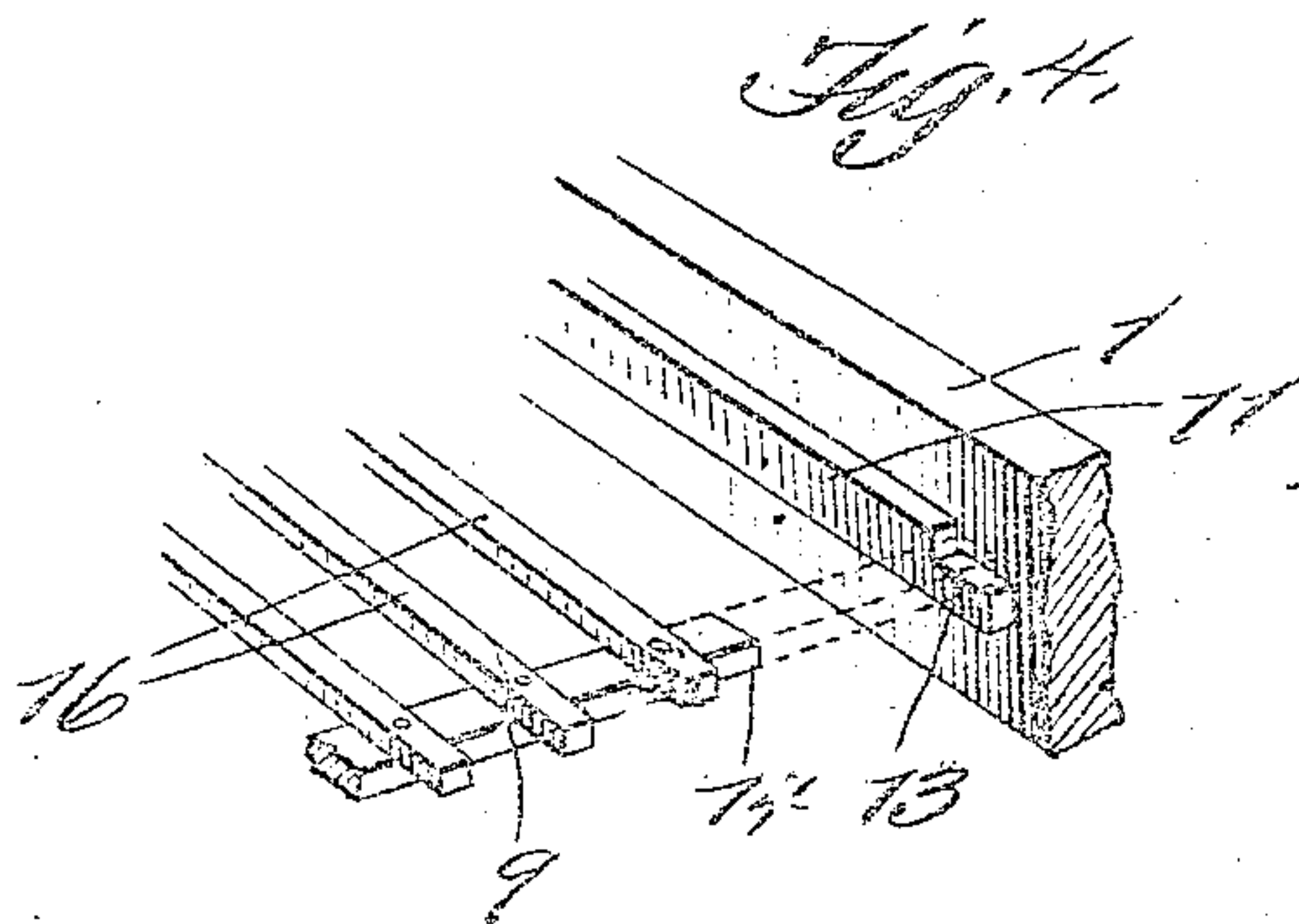
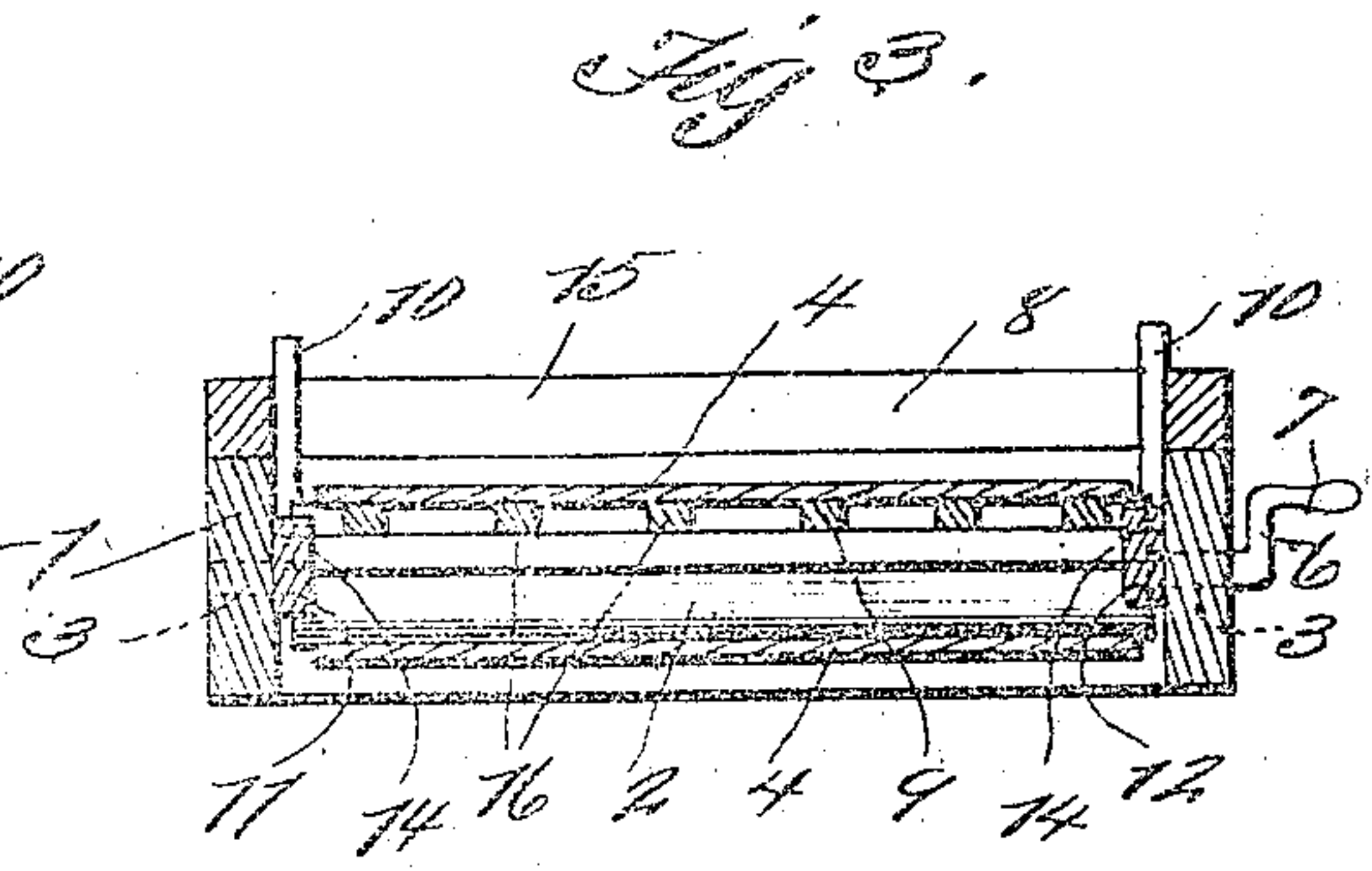
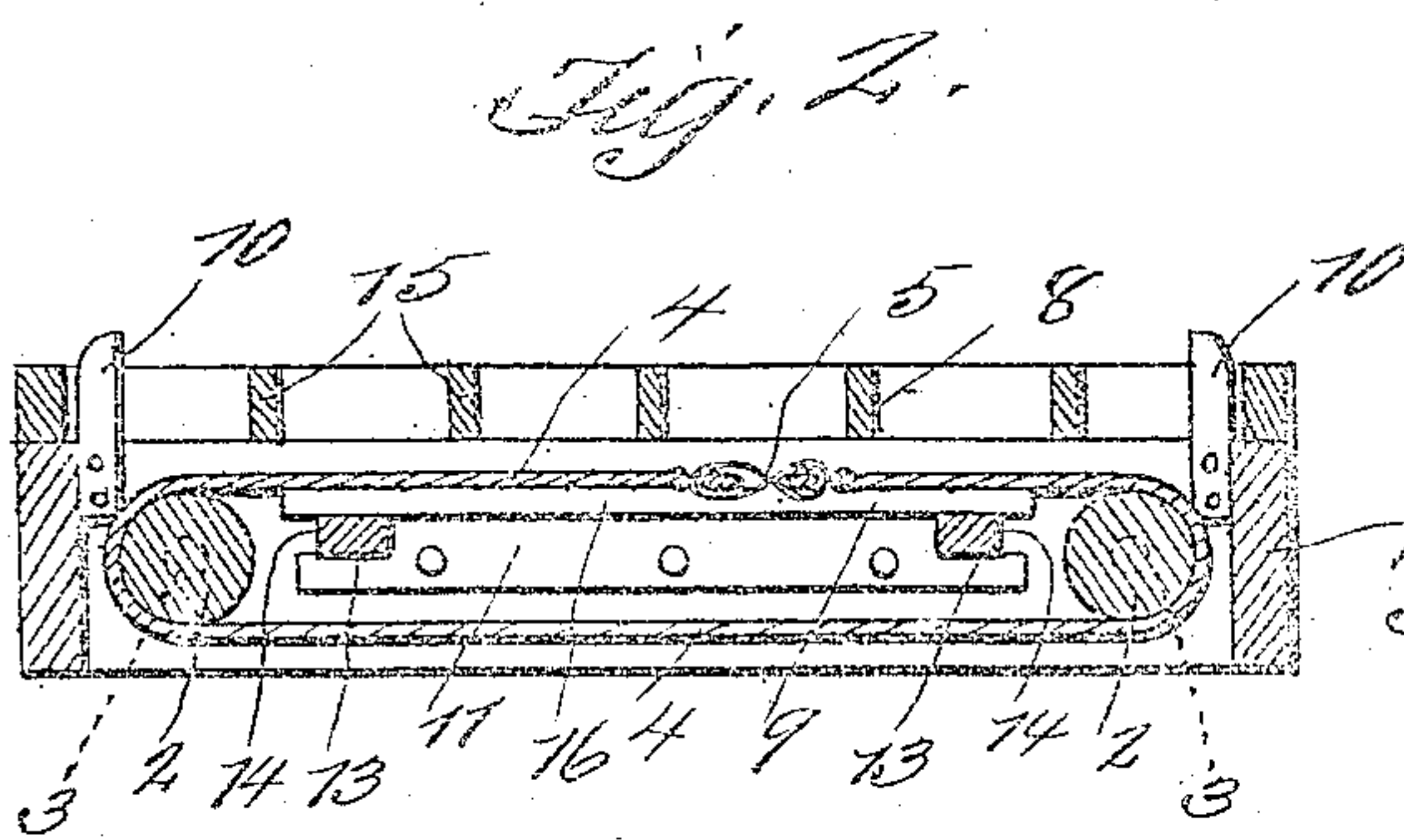
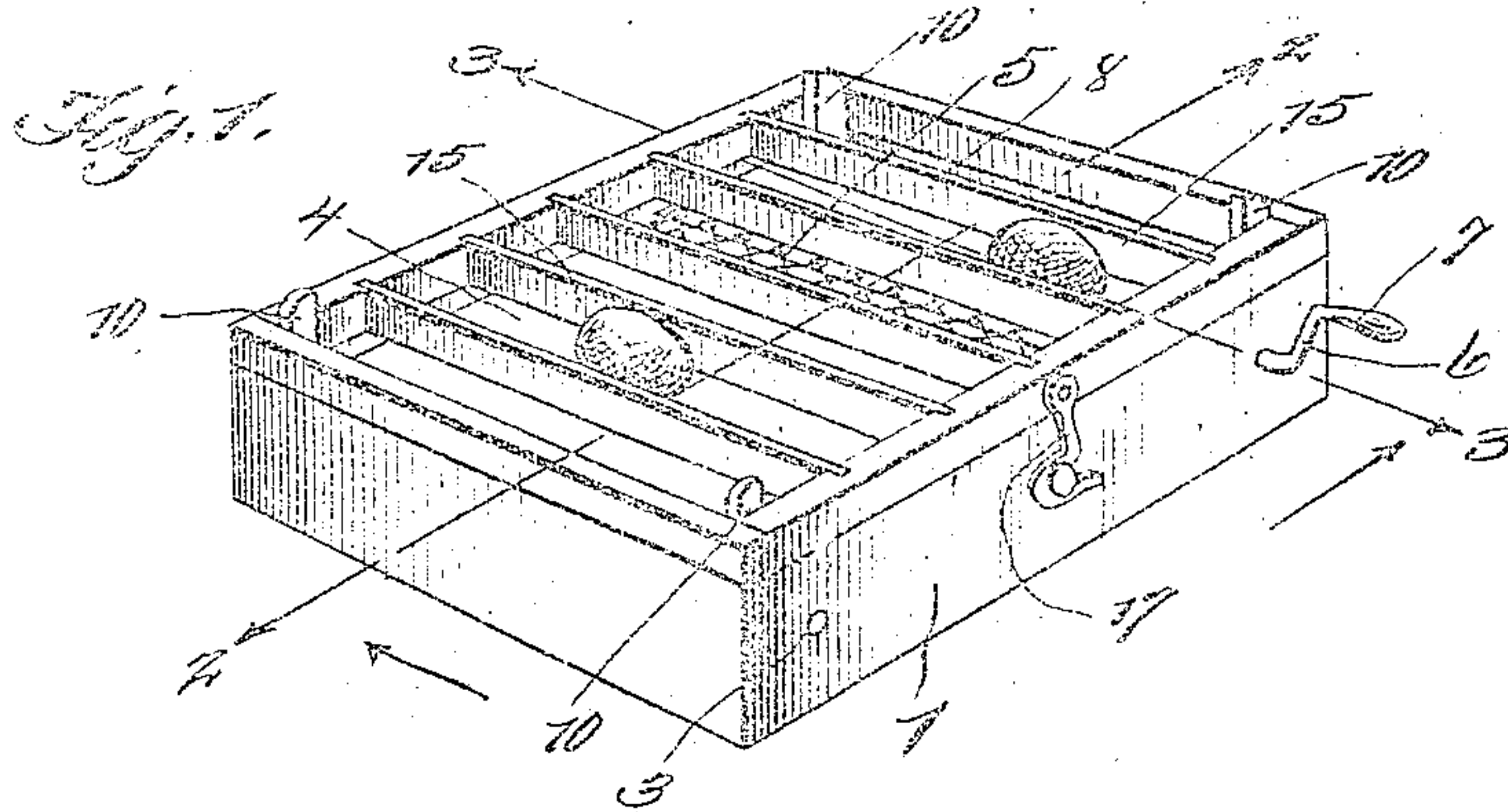
No. 886,185.

PATENTED APR. 28, 1908.

W. BUNKER.

EGG TURNER.

APPLICATION FILED JAN. 24, 1903.



Witnesses

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EGG-TURNER.

No. 886,185.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed January 24, 1908. Serial No. 412,460.

To all whom it may concern:

Be it known that I, WILLIAM BUNKER, a citizen of the United States, residing at Eaton Rapids, in the county of Eaton and State of Michigan, have invented a new and useful Egg-Turner; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention pertains to a new and useful incubator tray, of such a character and construction, that the eggs while resting therein may be turned without handling, by means of an endless apron, which engages rollers, which are journaled in bearings of the main frame of the tray, one of which rollers is provided with a suitable crank by which the said roller may be rotated, thereby imparting movement to the apron.

The invention in its broadest scope provides a device which is simple and efficient in construction and exceedingly durable in practice.

The invention aims as a further object to provide a removable rack having transverse bars to prevent the eggs from moving in a direction with the apron, as clearly shown.

The invention directs as a further object to provide an additional rack disposed adjacent and beneath the lower surface of the upper portion of the apron, so as to provide a surface upon which the endless apron moves. This rack is also removable when desired, by distorting the apron sufficiently to allow the rack to be removed from one side thereof, as shown in the drawings.

The main frame of the tray is provided with supporting strips upon which the additional rack rests; these supporting strips are recessed to receive portions of the rack to prevent longitudinal movement thereof.

A further object of the invention resides particularly in constructing the said additional rack, so that its bars are disposed at right angles to the first-named rack, so as to prevent transverse creeping or movement of the eggs, as the endless apron moves, as will be clearly evident.

This invention comprises further objects and combinations of elements which will be hereinafter more fully described, shown in the accompanying drawings, and the novel features thereof will be pointed out by the appended claims.

The features, elements and the arrange-

ment thereof, which constitute the above entitled invention, may be changed and varied, that is to say, in an actual reduction to practice, with the understanding that the changes and variations accruing from said reduction to practice, are limited to the scope of the appended claims.

To obtain a full and correct understanding of the details of construction, combinations of features, elements and advantages, reference is to be had to the hereinafter set forth description and the accompanying drawings in connection therewith, wherein

Figure 1 is a perspective view of the tray, showing one or more eggs therein. Fig. 2 is a longitudinal sectional view upon line 2—2 of Fig. 1, showing the disposition of the two racks, one above the endless apron and the other between the upper and lower portions of the apron. Fig. 3 is a transverse section on line 3—3 of Fig. 1, showing the bars of the rack disposed between the upper and lower portions of the apron in section, thus displaying how the eggs are prevented from creeping or moving transversely of the tray as they are turned. Fig. 4 is a detail perspective view of the rack disposed between the upper and lower portions of the apron and one of the supporting strips and a portion of the main frame of the tray, which parts are in readiness to be assembled. Fig. 5 is a view illustrating the manner in which the upper rack is guided to its position, as shown in Figs. 1 and 2.

In regard to the drawings, like numerals of reference are utilized to indicate corresponding features and elements throughout the several views thereof.

1 designates the main frame of an incubator tray in which rollers 2 are journaled, as at 3.

4 designates an endless apron which travels over the rollers 2, as shown clearly in Figs. 1 and 2 of the drawings. This apron is formed by a single piece of canvas or other suitable material, the ends of which are laced together, as shown clearly in Fig. 1, as at 5. One of the rollers is provided with a crank and handle 6 and 7 for the purpose of rotating the same, thereby imparting movement to the apron.

The tray is provided with an upper and lower rack 8 and 9, the upper rack being guided to the position as shown in Fig. 1 by standards 10, while the lower rack is supported between the upper and lower portions

of the apron by means of the strips 11 and 12, the ends of which are recessed, as at 13, to receive projections 14 of the lower rack.

The lower rack 9 is disposed beneath the upper portion of the apron in such a manner as to allow the apron to engage therewith while traversing the same, so as to form a rest for the eggs, as will be clearly evident from the drawings. The bars 15 of the upper rack are disposed transverse of the tray, so as to prevent movement of the eggs with the endless apron, while the bars 16 of the lower rack are disposed at right angles to the bars 15 of the upper rack, so as to prevent transverse creeping or movement of the eggs; in this manner the eggs remain approximately in one position while being turned or rotated.

The upper rack is provided with suitable catches 17, to engage the main frame of the tray to prevent upward displacement thereof.

From the foregoing, the essential features, elements and the operation of the device, together with the simplicity thereof, will be clearly apparent.

Having thus fully described the invention, what is claimed, is:—

1. In an incubator tray, a main frame having rollers journaled in its opposite ends, an endless apron mounted on said rollers, a removable upper and lower rack, one disposed above and the other below the upper portion of the apron, said main frame having strips provided with recesses, the lower rack having projections to engage said recesses.

2. In an incubator tray, a main frame, an endless apron, said apron being movable, removable racks disposed above and below the upper and lower surfaces of the upper portion of said apron, each of said racks having bars, those of one rack being disposed at right angles to those of the other rack, said main frame having strips provided with recesses, and the lower rack having projections to engage said recesses.

3. In an incubator tray, a main frame having rollers journaled in its opposite ends, an endless apron mounted on said rollers, removable upper and lower racks, one disposed above and the other below the upper portion of the apron and each rack having bars extending at right angles to the bars

contained in the other rack, the said lower rack positioned to be engaged by the upper portion of the apron which traverses thereover, said main frame having strips provided with recesses, the lower rack having projections to engage said recesses.

4. In an incubator tray, a main frame having rollers journaled in its opposite ends, an endless apron mounted on said rollers, removable upper and lower racks, one disposed above and the other below the upper portion of the apron and each rack having bars extending at right angles to the bars contained in the other rack, the said lower rack positioned to be engaged by the upper portion of the apron which traverses thereover, said main frame having strips provided with recesses, the lower rack having projections to engage said recesses, and means to guide and hold the upper rack in position.

5. A tray for incubators, having a pair of rollers, an endless apron mounted upon said rollers, a rack mounted upon the upper face of said apron and adapted to prevent the eggs from moving longitudinally of said tray, a lower rack having bars arranged transversely of those of the upper rack, substantially as described.

6. A device of the class described comprising a frame, having longitudinal strips, recesses formed in each end of said strips, a rack mounted in said recesses, rollers mounted at each end of said rack, an endless apron mounted on said rollers, and means for preventing eggs from moving with said apron when the same is operated.

7. A tray for incubators, having rollers mounted in each end thereof, a rack mounted between said rollers, an endless apron mounted on said rollers, said rack having egg-supporting bars arranged longitudinally of said apron, and an upper rack arranged above said apron, having means to prevent eggs from moving with the apron.

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

WILLIAM BUNKER.

Witnesses:

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G. E. McARTHUR.