

No. 778,097.

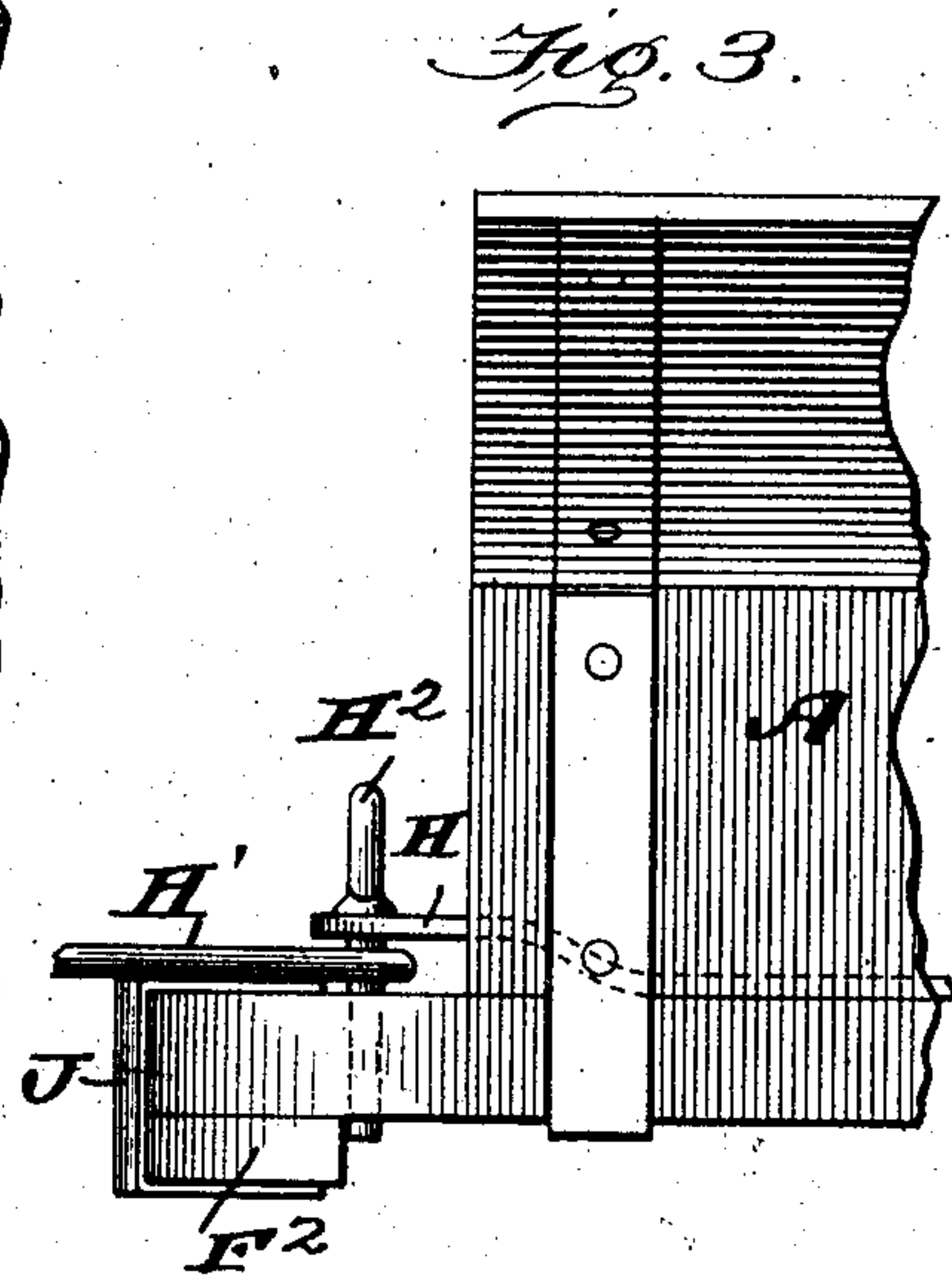
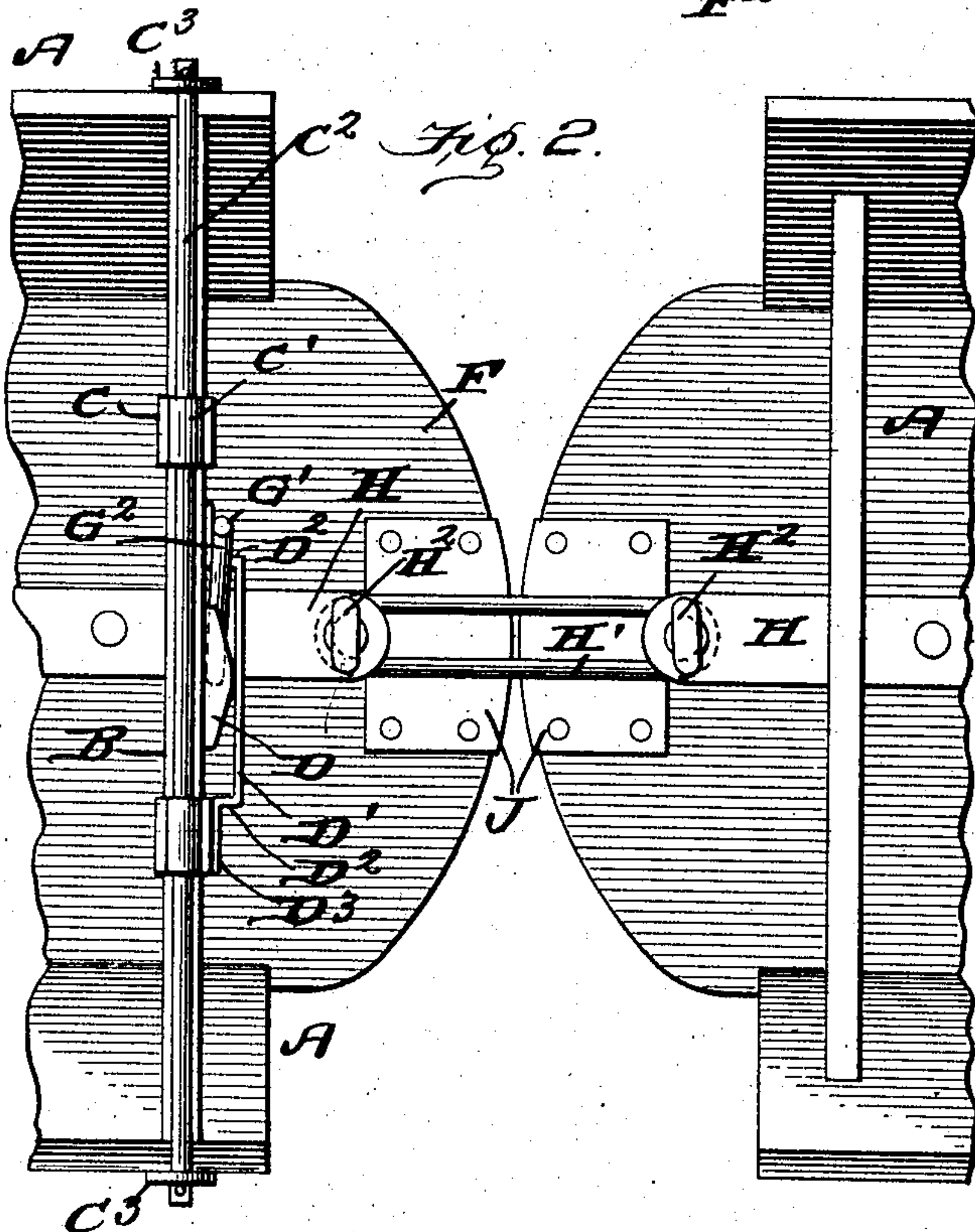
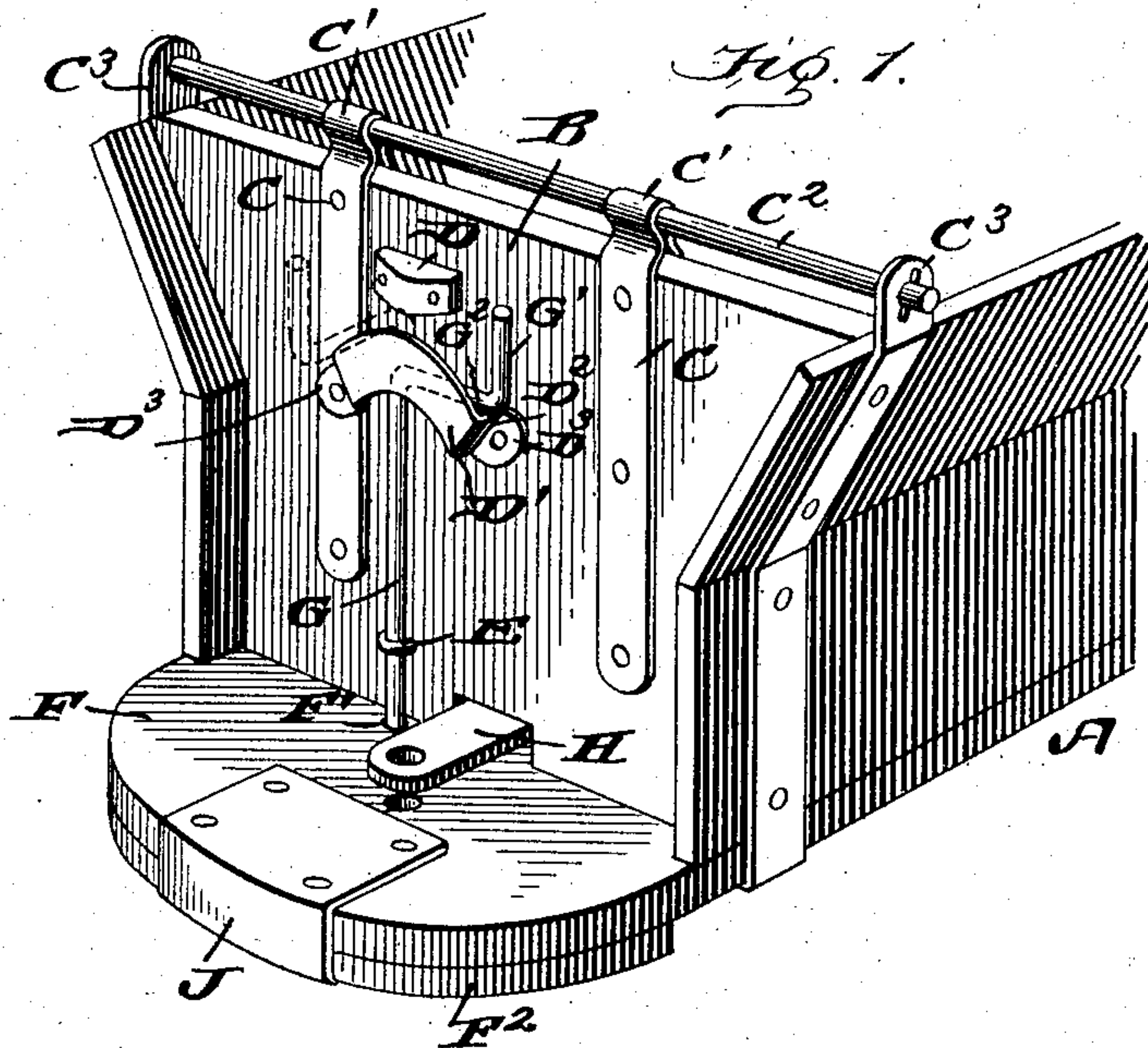
PATENTED DEC. 20, 1904.

J. B. BELL.

MINE CAR.

APPLICATION FILED JUNE 10, 1904.

NO MODEL.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH B. BELL, OF WINDBER, PENNSYLVANIA.

MINE-CAR.

SPECIFICATION forming part of Letters Patent No. 778,097, dated December 20, 1904.

Application filed June 10, 1904. Serial No. 211,978.

To all whom it may concern:

Be it known that I, JOSEPH B. BELL, a citizen of the United States, residing at Windber, in the county of Somerset and State of Pennsylvania, have invented a new and useful Improvement in Mine-Cars, of which the following is a specification.

My invention is an improvement in the end piece of a mine-car, the object of the invention being to produce a simple and secure means of locking the end-gate in place and of locking the cars of a train together; and a further object of the invention is an improvement of the nature above mentioned which can be applied to any of the cars now in common use.

My invention consists in the novel features of construction and combination of parts hereinafter described, particularly pointed out in the claims, and shown in the accompanying drawings, in which—

Figure 1 is a perspective end view of a car equipped with my improvements. Fig. 2 is a plan view showing two cars coupled together. Fig. 3 is a side elevation of an end portion of a car.

In the drawings, A represents the body of the car, and B the end-gate. I employ two metal strips C, bent upon themselves and secured vertically to the end-gate B, having a loop C' formed in their bow portion, and through the loops C' extends a rod C², and the ends of the rod pass through perforations formed in ears C³, carried by and projecting above the sides of the car A. The rod C² is held in place by suitable cotter-pins, and this construction is not claimed as new. To this end-gate B and on the outer face of same I secure a block D, arranged between the strips C. Below the block D, I arrange a segment D', having its end portions bent inwardly, as shown at D², and thence outwardly, as shown at D³, the portions D³ being parallel to the gate B and secured thereto in any suitable manner. Below the segment D' and in vertical alinement with the center of the arch formed by the said segment I secure to the end-gate B an eye E. The floor of the car is projected or carried beyond the end-gate and sides of the car, as shown at F, and in the

floor I form an opening F' in alinement with the eye E. A straight rod G is cranked to form a handle G' at its upper end, and the horizontal portion G² of the handle G' is adapted to rest and move upon the segment D'. When the rod G is placed in position, its lower straight portion passes vertically through the eye E and through the opening F', the portion G² resting on the segment D' and between the segment and the end-gate B. When the handle G' is thrown into the position shown in full lines in Fig. 1, the gate is locked in position and the lower edge of the gate cannot swing either inward or outward. In this position the horizontal portion G² of the handle rests on the angled portion D² of the segment D'. When, however, the handle G' is rotated to a position at right angles to the end-gate B, the horizontal portion G² rides upon the curved edge of the segment D' and the rod G is lifted from engagement with the socket or opening F' in the floor F. The end-gate B can then be swung on the rod C² outward or inward. The block D limits upward movement of the rod G and prevents its removal from the end-gate.

The platform or projecting end portion of the floor F is rounded from the sides on the arc of a circle struck from within the car to the rear of the end-gate B. The usual draw-bar H is provided, having a perforation adjacent the end, and a link H' is coupled to the draw-bar H by means of a coupling-pin H². The curved edge of the platform is reinforced to form a buffer by means of the curved plate F², secured to the under side of the platform, and further strengthened by means of the U-shaped metal plate J, the members of which fit over the platform and reinforcing-plate F². The cars when coupled will on a curve touch at one point only and will swing smoothly around a sharp curve without jolting or tending to ride the one upon the other, as is the case where a plurality of links are employed or the meeting edges of adjacent platforms comprise straight edges.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. A mine-car having an end-gate, a pro-

jecting platform, said platform being perforated adjacent the gate, a curved segment carried by and spaced from the gate, an angled rod adapted to slide between the segment and the gate and to engage the perforation in the platform, said rod having a cranked portion adapted to rest on the segment, and a stop-block arranged on the gate centrally above the segment, as and for the purpose set forth.

10 2. A mine-car having an end-gate, a platform projecting beyond the gate and having a curved edge on the arc of a circle struck

from the rear of the end-gate, a curved plate secured to the under side of the platform, and a U-shaped metal plate fitted over the curved edge of the platform and the plate secured to the under side of the platform, and means carried by the gate adapted to lock the gate to the said platform, as and for the purpose set forth. 15

JOSEPH B. BELL.

Witnesses:

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