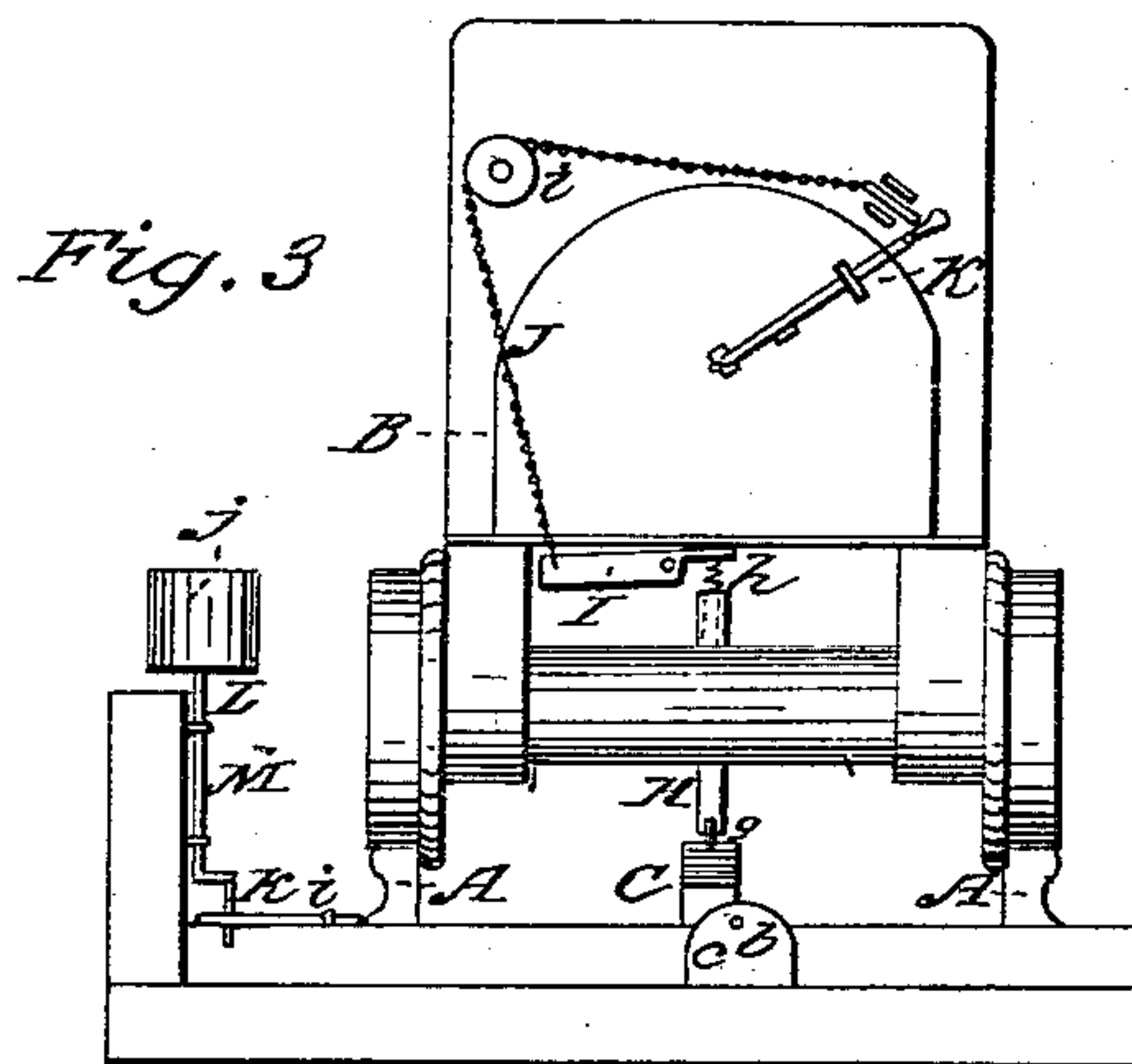
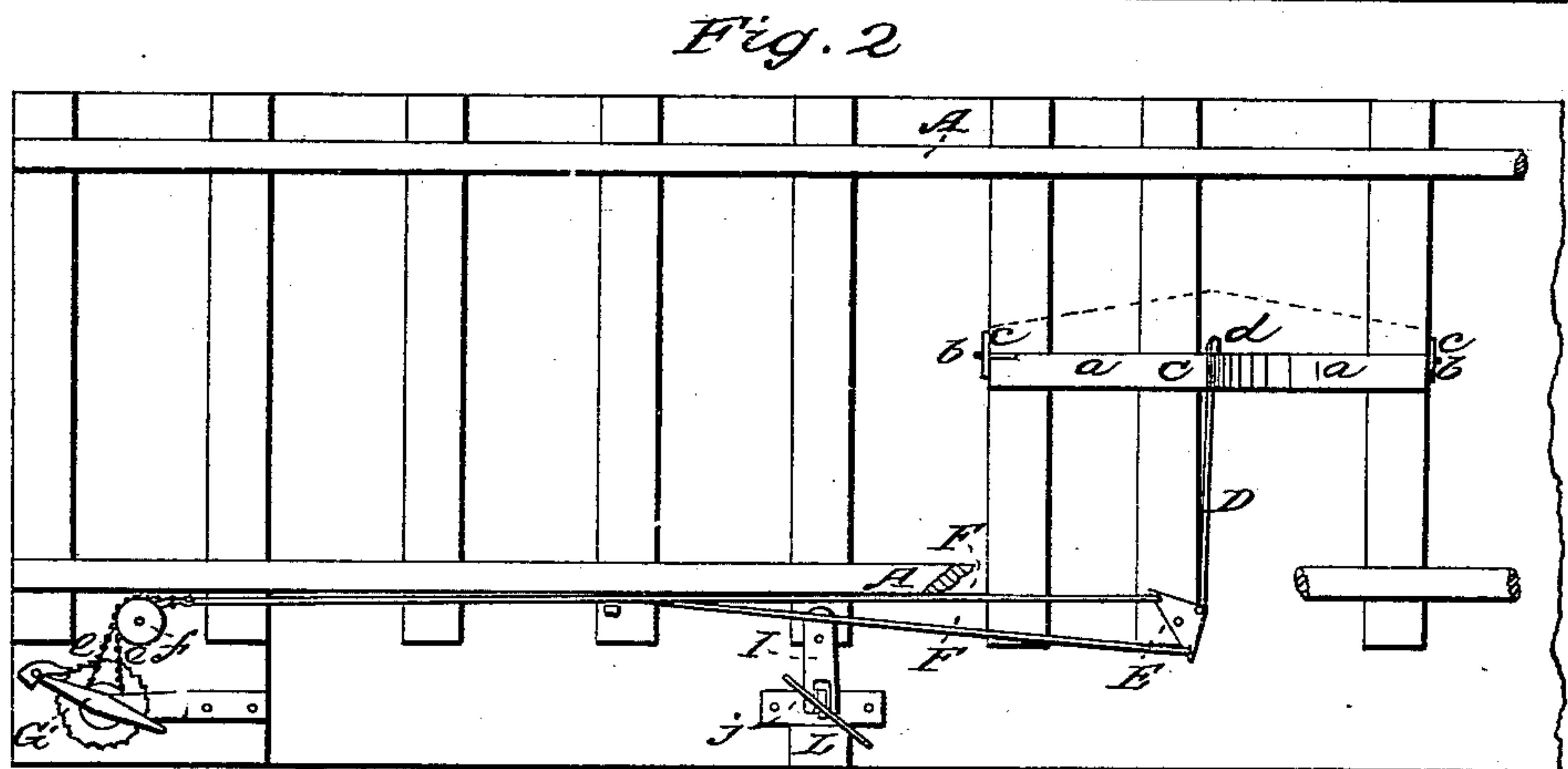
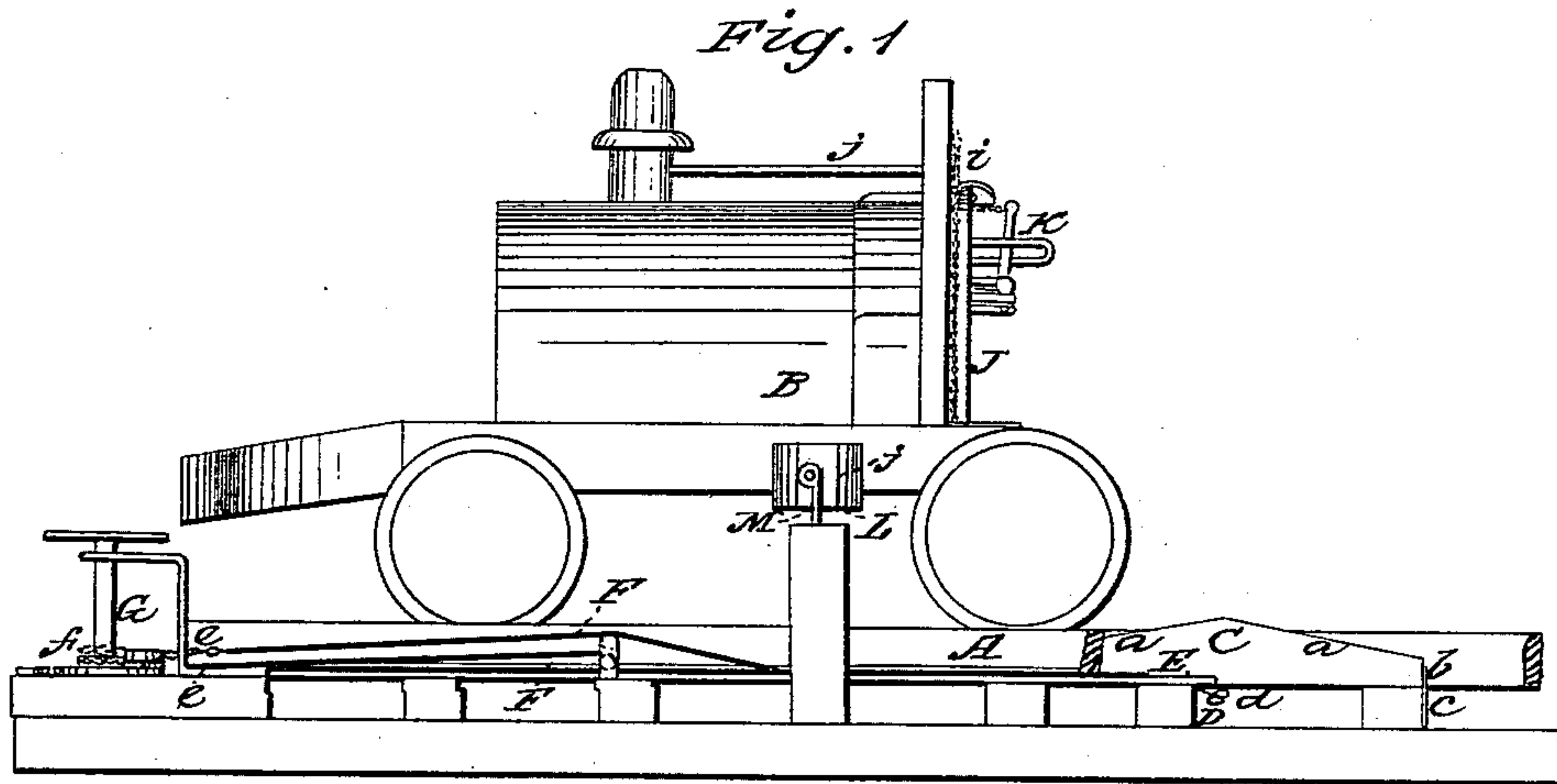


M. WALLWORK.
Railroad Annunciator.

No. 61,693.

Patented Jan. 29, 1867.



Witnesses:
F. A. Jackson
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United States Patent Office.

MILTON WALLWORK, OF SHELBYVILLE, TENNESSEE, ASSIGNOR TO
HIMSELF AND JAMES NUTT.

Letters Patent No. 61,693, dated January 29, 1867.

IMPROVED METHOD OF PREVENTING ACCIDENTS ON RAILROADS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, MILTON WALLWORK, of Shelbyville, in the county of Bedford, and State of Tennessee, have invented a new and improved Means for Preventing Accidents on Railroads; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention, showing a locomotive and portion of the track to both of which the invention is applied.

Figure 2, a plan or top view of a portion of the track to which certain parts of the invention are applied.

Figure 3, an end view of the parts shown in fig. 1.

Similar letters of reference indicate like parts.

The object of this invention is to obtain a simple and efficient means for preventing accidents on railroads, such as the collision of trains, the running of the same off from draw-bridges, &c., &c. The invention consists in applying to the track an adjustable inclined plane, and applying a plunger and lever to the locomotive and connecting the lever to the throttle-valve and alarm-whistle, in such a manner that when the inclined plane on the track is adjusted in a certain position, the plunger on the locomotive will, as the locomotive passes over the inclined plane, be moved or actuated so as to cut off the steam and sound the whistle. A signal is also connected with the wires or rods pertaining to the inclined plane adjusting mechanism, whereby said signal is operated simultaneously with the adjustment of the inclined plane.

A A represent the two rails of a railroad track; and B, the locomotive thereon. C is a double inclined plane, or it may be described as a bar having two inclined surfaces, *a a*; said bar being placed on the track about centrally between the rails A A and parallel therewith; the bar having journals *b* at its ends, which are fitted in bearings, *c c*, attached to the sleepers or cross-ties of the road. The bar or inclined plane has a pendant arm, *d*, attached centrally to it, and this arm is connected by a rod, D, with a bell-crank, E, attached to the outer end of a cross-tie; and this bell-crank has two wires or rods, F F, attached to it, one at each end, as shown clearly in fig. 2, said wires or rods extending along by the outer side of one of the rails A, and having chains *e e* attached to their ends, which chains pass around a pulley, *f*, and are connected to an upright windlass, G. By turning this windlass G, the inclined plane C may be adjusted so that its inclined surfaces will be upward, as shown in fig. 1, or turned down, as shown in red in fig. 2, so that one side of C will be uppermost, which side is a horizontal plane. On the front end of the locomotive there is secured an upright plunger or rod, H, fitted in a suitable guide or guides, and having a friction-roller, *g*, in its lower end. This plunger is kept down to its fullest extent by a spiral spring, *h*, shown in fig. 2, to compensate for the undulating motion of the engine, and one end of a lever, I, is directly over the upper end of the plunger or rod H. The opposite end of the lever I has a chain, J, attached to it, and this chain passes over a pulley, *i*, and is connected to the lever K of the throttle-valve. The chain J is also attached to the rod *j* of the whistle-valve.

From the above description it will be seen that when the inclined plane C is adjusted with its inclined surfaces uppermost the plunger or rod H will, as the locomotive passes over C, be forced or pressed upward, and the lever, I, will be actuated, and the chain J made to operate the throttle-valve and whistle-valve so that the steam will be cut off from the cylinders and the whistle made to blow. Thus I obtain an automatic mechanism which will act as a great safeguard against accidents, especially during the night, when flags and other sight-signals are unreliable. The inclined plane C may be adjusted by an operator or employé, and an ordinary sight-signal, L, may be attached to one of the wires or rods F so as to be turned when the inclined plane C is adjusted. This signal L may be constructed of a board, or sheet-metal plate, *j*, attached to a vertical shaft, M, having a crank, *k*, at its lower end to fit into a slot in a lever, *l*, to which one of the wires or rods F is connected. (See figs. 2 and 3.) This signal is so placed or attached to the wire or rod that the board or plate *j* will have a transverse position relatively with the track when the inclined plane C is raised, as shown in fig. 1, and have a longitudinal position or be parallel with the track when the inclined plane C is down. This sight-signal will serve as an additional safeguard during the day, and also to indicate to the engineer when all is right so that he may proceed with the train.

The object in having two inclined surfaces $\alpha \alpha$ on the bar is to admit of the plunger or rod H being operated when the locomotive is travelling in either direction.

I do not claim the signal L separately, for that is in common use, but I do claim as new, and desire to secure by Letters Patent—

The adjustable inclined plane C, in combination with the plunger or rod H on the locomotive, and connected or arranged with the throttle and whistle-valves thereof, to operate in the manner substantially as and for the purpose set forth.

MILTON WALLWORK.

Witnesses:

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H. C. SHUPARD.