

(Model.)

E. EBI.
BRAKE ROD.

No. 246,101.

Patented Aug. 23, 1881.

Fig. 1

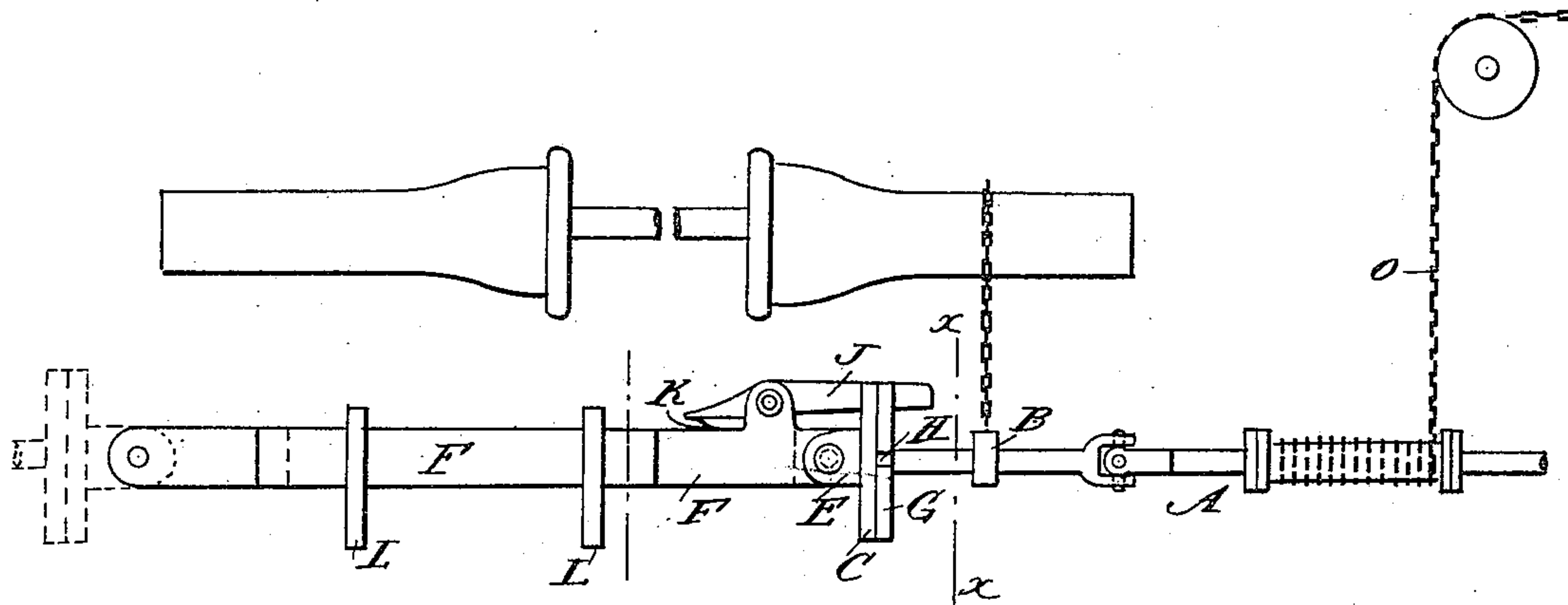


Fig. 2

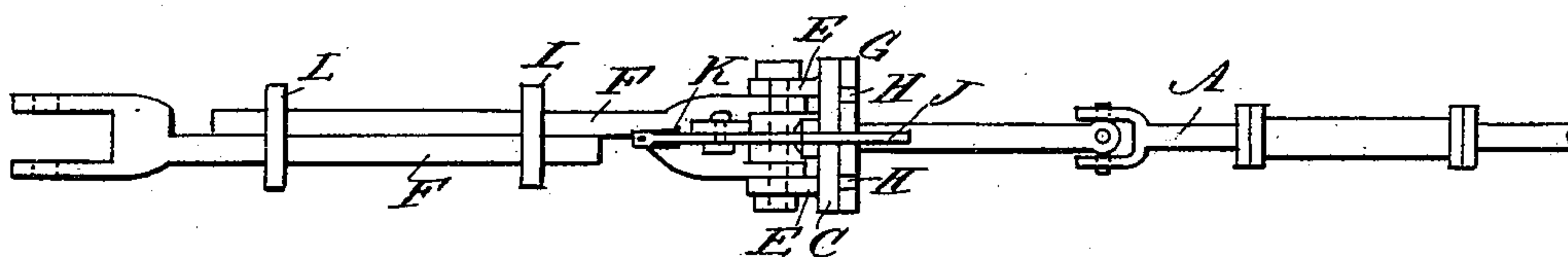


Fig. 4

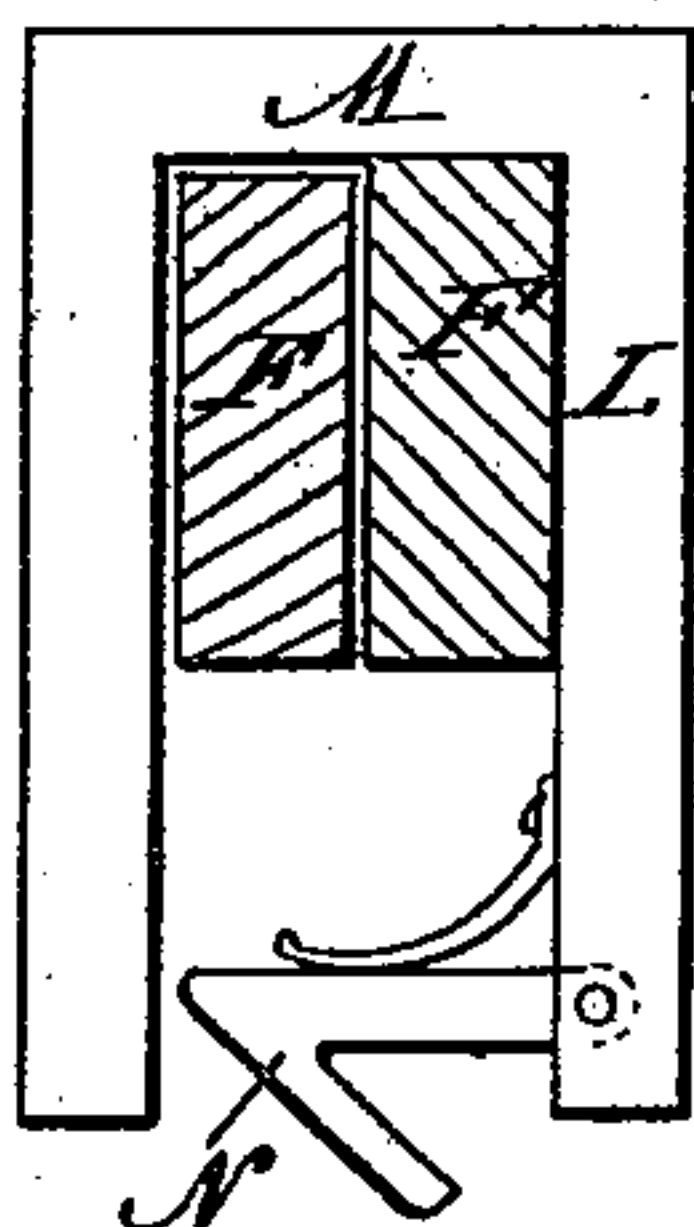
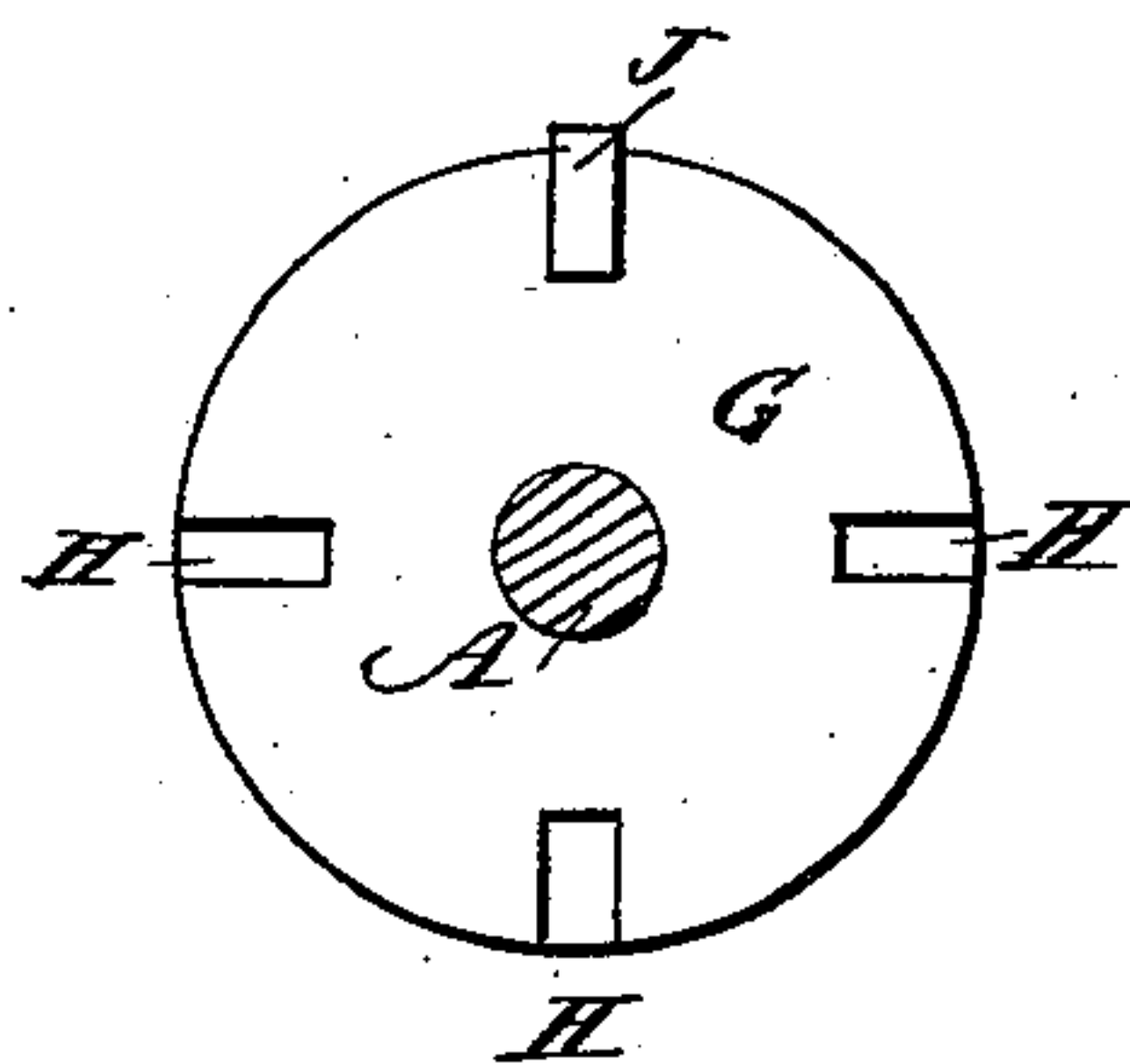


Fig. 3



WITNESSES:

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BRAKE-ROD.

SPECIFICATION forming part of Letters Patent No. 246,101, dated August 23, 1881.

Application filed March 30, 1881. (Model.)

To all whom it may concern:

Be it known that I, EDWARD EBI, of Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and Improved Brake-Rod, of which the following is a specification.

The object of my invention is to facilitate operating all the brakes of a train simultaneously from the locomotive.

The invention consists in a rod passing through journal-bearings on the under side of the car, and provided at the ends with pivoted connecting-bars having spring-catches for keeping them united, which connecting-bars are locked to the brake-rods by means of a lever pivoted to the connecting-bar and passing into notches of a loose and a rigid circular plate on the brake-rod, so that all the brake-rods of the several cars of a train will be revolved together and the brake-shoes will be drawn against the wheels simultaneously.

In the accompanying drawings, Figure 1 is a side elevation of two connected ends of my improved brake-rod. Fig. 2 is a plan view of the same. Fig. 3 is a cross-sectional elevation of the same on the line *x x*, Fig. 1. Fig. 4 is a cross-sectional elevation of one of the connecting-bars with its clamp and spring-catch.

Similar letters of reference indicate corresponding parts.

The rods *A A* pass through journal-bearings *B B*, suspended from or attached to the under side of the car, so that these rods can be rotated freely. A circular plate, *C*, with a notch, *D*, and provided with jaws *E*, is loosely mounted on the end of the rod *A*, and a bar, *F*, is pivoted to the jaws *E*. A circular plate, *G*, with a series of notches, *H*, in the circumference, is rigidly mounted on the bar *A*, adjoining the plate *C*; and if a latch-lever, *J*, pivoted on the bar *F*, is passed into the notch *D* of the plate *C* and into one of the notches *H* of the plate *G*, the two plates *G* and *C* will be locked to each other. A spring, *K*, holds the latch-lever *J* in its various positions. A U-shaped clamp, *L*, is attached to each bar *F* in such a manner that this bar rests against one of the shanks and against the transverse piece *M* of the clamp *L*, as shown in Fig. 3.

A spring-latch, *N*, with an outwardly-beveled end, is attached to that shank of the clamp *L* against which the bar *F* rests, so that this latch passes across the clamp, and its point is adjoining the other shank.

The brake-chain *I* is attached to the bar *A*, and will be wound upon the same when the bar is rotated by suitable mechanism.

The operation is as follows: Ordinarily the connecting-bars *F* hang down from the ends of the bar *A*; but when two cars have been coupled one bar *F* is passed into the U-shaped clamp *L* of the other, and is retained in the same by the spring-latch *N*, this bar *F* pressing the spring of the latch *N* inward as it enters into the clamps *L*. If the cars are uncoupled, the bars *F* simply slide out of each other's clamps, and then hang from the end of the rods.

The rods *A* of all the cars of a train can be connected in the manner described above. If the latch-lever *J* is raised, the connecting-bars *F* will not be rotated, and thus any number of cars can be disconnected, if desired.

The rod *A* of the locomotive is rotated by means of some suitable mechanism on the locomotive, and the movement of this bar *A* is transmitted to the others in the manner shown and described.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the rod *A*, journaled on the under side of a car, of the notched circular plate *C*, the pivoted connecting-bar *F*, the notched circular plate *G*, and the latch-lever, *J*, pivoted to the connecting-bar *F*, substantially as herein shown and described, and for the purpose set forth.

2. The combination, with the rod *A*, journaled on the under side of a car, of the connecting-rod *F*, pivoted to a notched circular plate, *C*, loosely mounted on the end of the rod *A*, of the notched circular plate *G*, rigidly mounted on the rod *A*, and of a U-shaped clamp, *L*, attached to the connecting-rod *F* and provided with a spring-latch, *N*, substantially as herein shown and described, and for the purpose set forth.

3. In a brake-rod connection, the connecting-bar *F*, constructed substantially as herein shown and described, with an U-shaped clamp, *L*, provided with a spring-latch, *N*, attached thereto, as and for the purpose set forth.

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Witnesses:

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