(No Model.)

C. L. LEIBY & C. L. BAITTINGER, Jr.

CROSSING FOR CABLES.

No. 359,083. Patented Mar. 8, 1887.

Fig. 1.

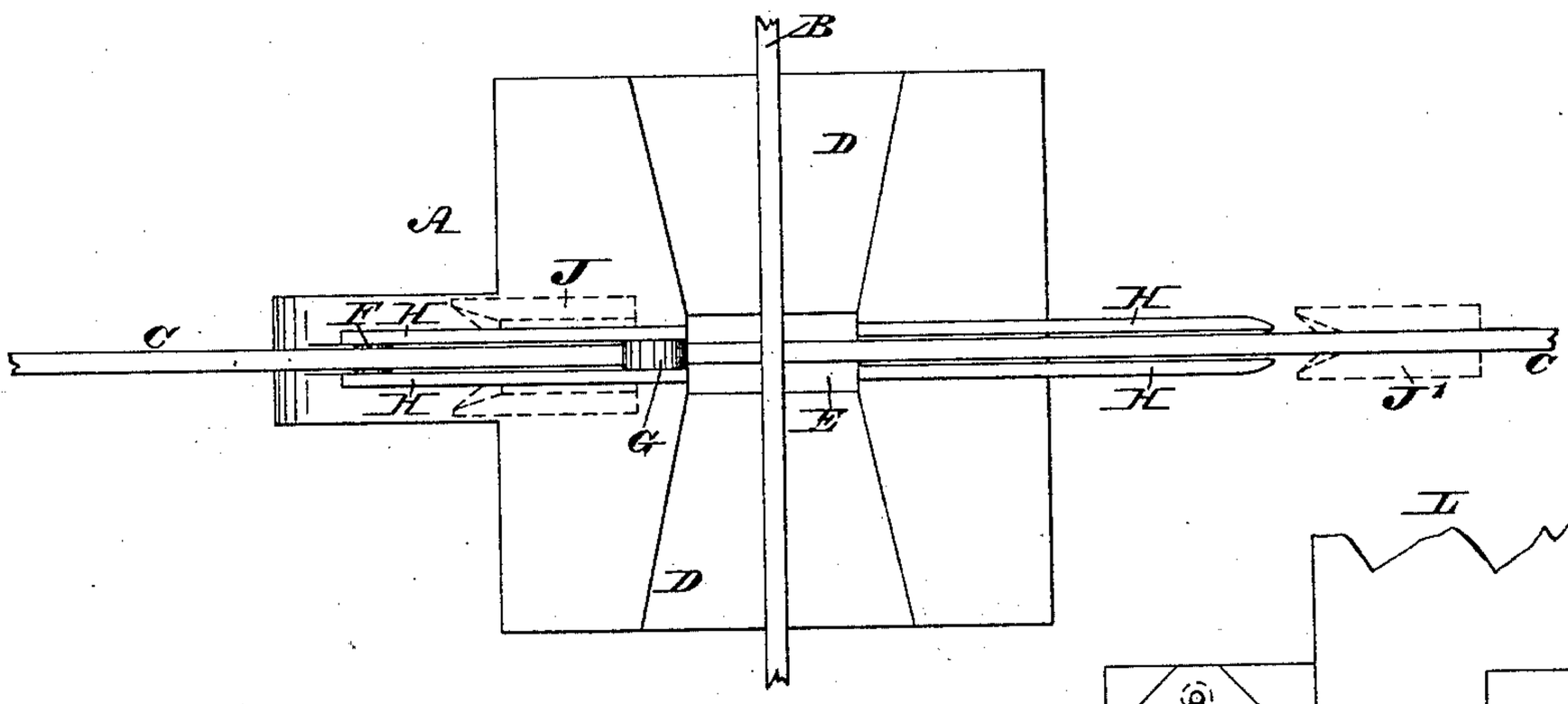


Fig. 2.

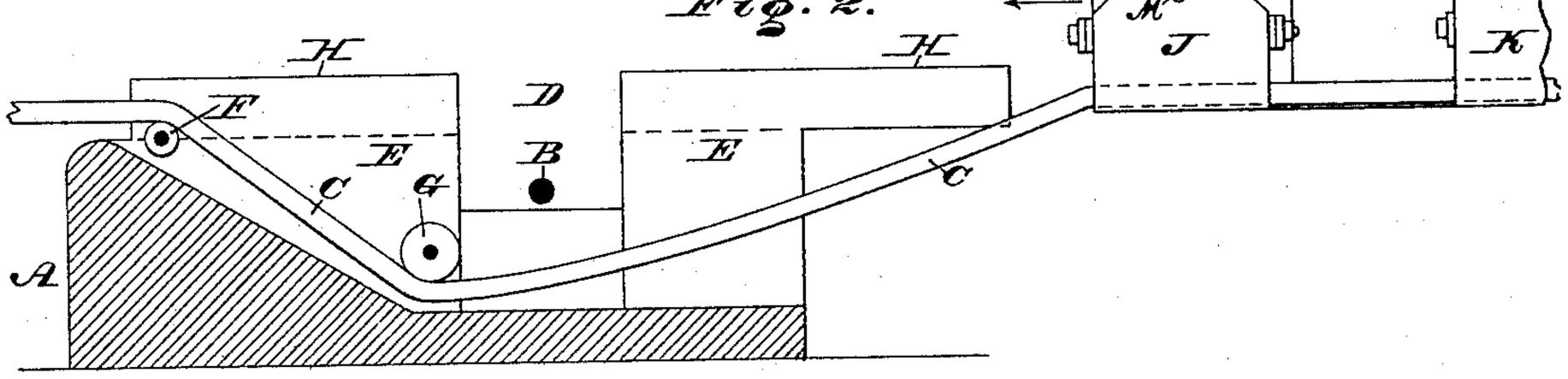


Fig. 3.

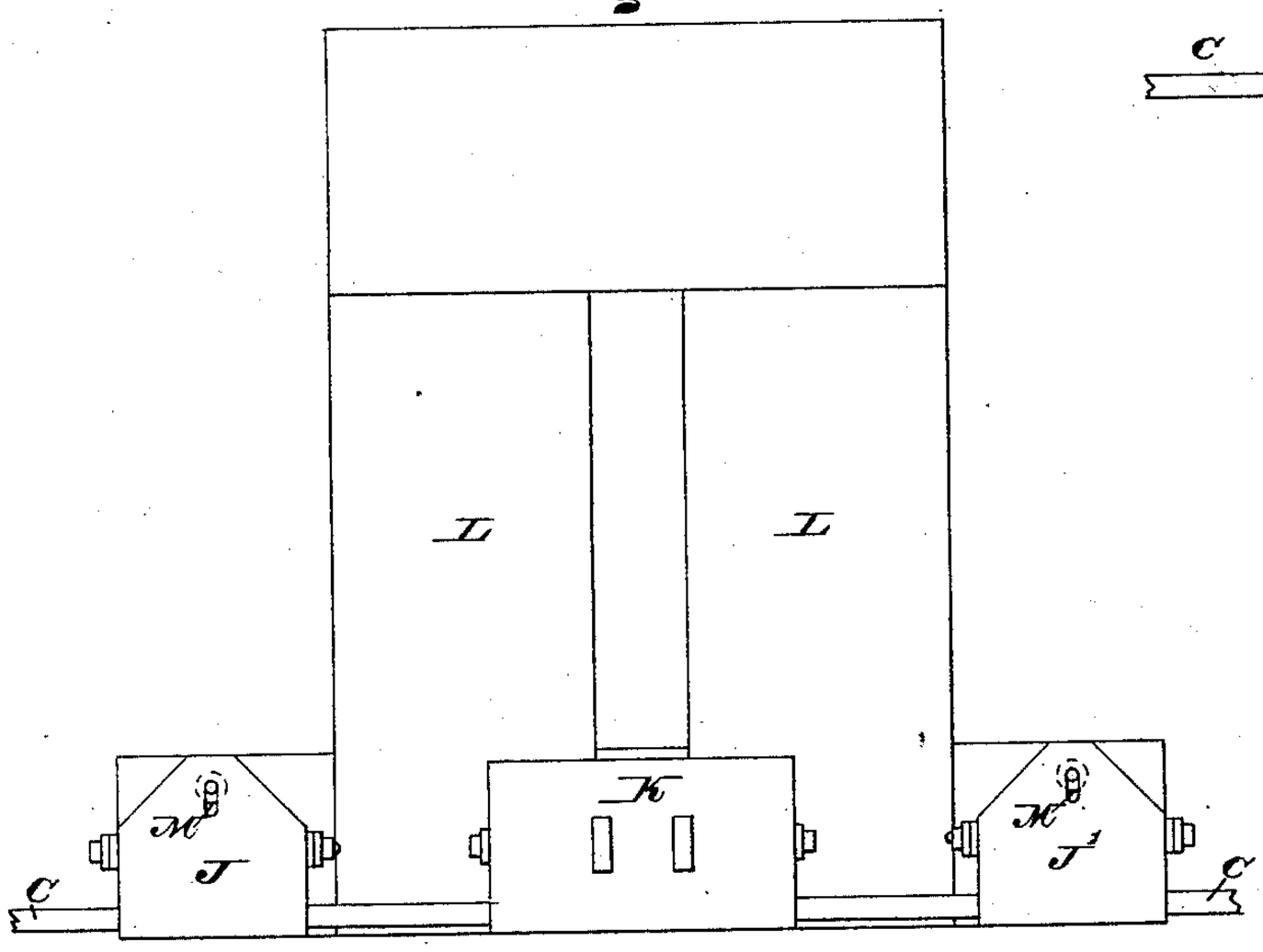


Fig. 4.

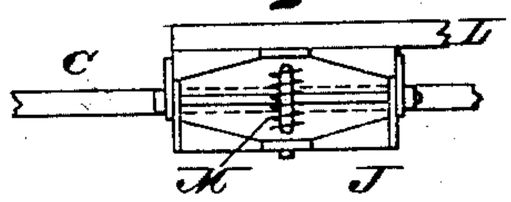
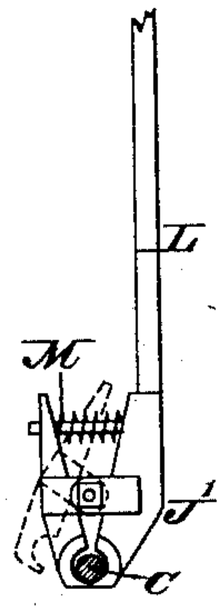


Fig. 5.



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CHARLES L. LEIBY AND CHARLES L. BAITTINGER, JR., OF PHILADELPHIA, PENNSYLVANIA.

CROSSING FOR CABLES.

SPECIFICATION forming part of Letters Patent No. 359,083, dated March 8, 1887.

Application filed December 4, 1886. Serial No. 220,647. (No model.)

To all whom it may concern:

Be it known that we, CHARLES L. LEIBY and CHARLES L. BAITTINGER, Jr., citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Crossings for Cables, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a top or plan view of a crossing for cables for traction-cars embodying our invention. Fig. 2 represents a vertical section thereof and a side elevation of portions of the grip and connected devices. Fig. 3 represents a side elevation of the grip and connected devices. Fig. 4 represents a top view of one of said devices. Fig. 5 represents an end view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Our invention consists of a crossing for cables for traction-cars constructed to permit one cable to pass the other without interfering with each other and in a measure continuing the motions of the cars at said crossing.

It also consists in providing a grip with means for grappling the cable after the latter passes the crossing, whereby the cable is prevented from sagging prior to the closing action of the grip.

Referring to the drawings, A represents a bed formed of a block of suitable material, which is properly located at the place of crossing of the cables B C, said bed having passages D E, extending at an angle to each other to permit the travel of said cables. At one end of the bed is mounted a roller, F, which is about the height of the level of the cable C, and near said roller F is mounted another roller, G, which is below the cable B, so that as the cable enters the passage E it runs under said roller G, whereby it clears the cable B, and vice versa, said cable, after leaving the roller G, running over the roller F, and so continuing its journey.

From the top of the bed A there rise upright pieces H, which form deflectors for opening the grapples J J′ and grip K of the car, said deflectors being disconnected over the passage D.

The grapples J J′ are of the form of jaws which are connected with the end pieces of the bar or shank L, one of each pair of jaws being pivoted to the opposite jaw and held closed thereagainst by a spring, M. If desired, both jaws of each pair may be pivoted together and held closed by said spring M.

The forward ends of the grapples J J′ and jaws of the grip are rounded, and the front ends of the deflectors H are also rounded, (see Fig. 1,) whereby when the grapples and grip strike the deflectors abruptness in the contact of the parts is avoided.

It will be seen that the cables B C may travel as usual, and the grip of the car propelled by the cable B passes over the cable C without interfering therewith. The cable C is embraced by the grapples J J′ and grip K, and when the advance grapple, J, reaches the deflectors H they strike the same and are thereby separated, letting go the cable C, the grip K being previously released of its clamping action by the gripman on the car. When the grip reaches the deflectors, it is separated and opened and the hold on the cable by said grip is fully let go. The grapple J′ now alone holds the cable until it reaches the deflector, when it is opened and also releases the cable. The car having sufficient momentum passes over the cable B. When the grapple clears the end of the deflectors adjacent to the roller F, it closes quickly on the cable C and holds up the same at a place where it is liable to sag, so that when the grip has passed the deflectors it takes immediate hold of the cable, thus preventing the grip from losing said cable, the grip then being fully tightened by the gripman. The grapple J′ next clears the deflectors and closes against the cable C, the car continuing its motion as usual.

The grapple J′ may be omitted, if desired.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A cable-crossing consisting of the bed A, having the passages D E, extending at an

angle to each other, and provided with the rollers F G and the deflectors H, all substantially as described.

2. A cable-crossing consisting of the bed A, having the passages D E, extending at an angle to each other, the passage D being above that of the passage E, the rollers F and G, located as described, and the upright pieces H, along both sides of the passage E and interrupted by the passage D, forming deflectors, all substantially as described.

3. The bed A, the roller F, the deflectors H, the automatic grapple J, and grip K, all of said parts being so combined and arranged whereby the cable is automatically seized in the advance of the grip and prevented from sagging, substantially as described.

4. In a cable-crossing, a bed with passages for cables and upright pieces extending on both sides of one of said passages and forming deflectors, whereby a grip is opened in advance of its arrival at the crossing, substantially as described.

5. In a cable-crossing, a grapple formed of a fixed jaw, a pivoted jaw, and a spring, the latter normally adapted to close the said jaws, the said jaws having their forward end portions rounded, in combination with a bed having deflectors with front rounded ends, all substantially as and for the purpose set forth.

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