

(No Model.)

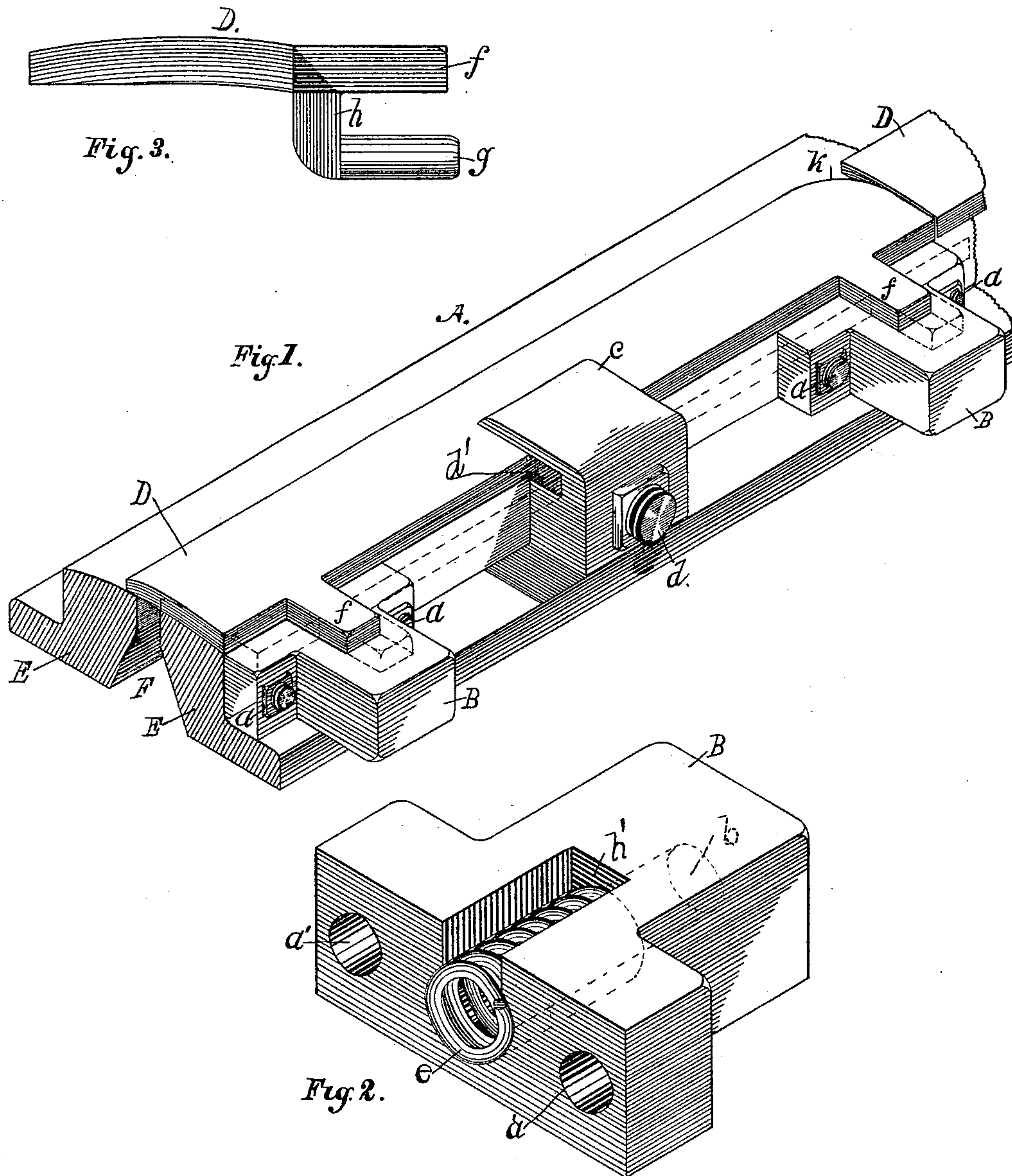
2 Sheets—Sheet 1.

C. DAVIS.

GRIP SLOT CLOSER FOR CABLE RAILWAYS.

No. 403,651.

Patented May 21, 1889.



Witnesses

A. A. Higdon  
E. Ryan

Inventor  
Charles Davis

By His

Attorney

J. A. Higdon

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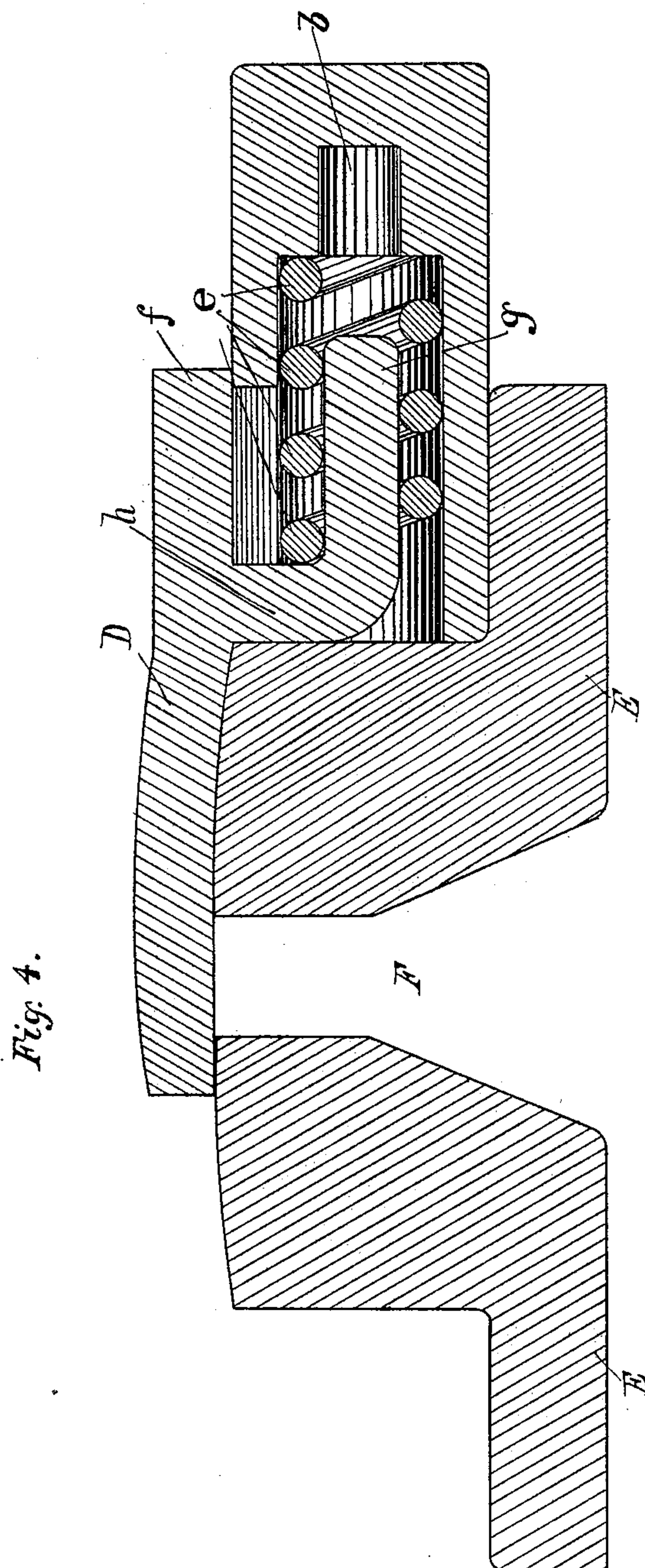
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# UNITED STATES PATENT OFFICE.

CHARLES DAVIS, OF KANSAS CITY, MISSOURI, ASSIGNOR OF TWO-THIRDS TO  
CAROLINE MARDER AND CON. W. MARLIN, OF SAME PLACE.

## GRIP-SLOT CLOSER FOR CABLE RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 403,651, dated May 21, 1889.

Application filed March 23, 1889. Serial No. 304,392. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES DAVIS, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements  
5 in Grip-Slot Closers for Cable Railways, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention pertains to certain improvements  
10 in cable railways, more especially in means to close the cable-slot; and it consists of the combination of parts and their novel construction, as will more fully appear from the following description and accompanying  
15 illustration, in which—

Figure 1 is a perspective view of parts illustrating a cable-railway slot having my invention applied thereto. Fig. 2 is an enlarged  
20 detailed perspective view of one of the slot-cap springs and its seat. Fig. 3 is a detailed end view of the cap, and Fig. 4 is a transverse sectional view taken through Fig. 1.

In the embodiment of my invention I employ a cap or plate, D, which is more especially  
25 used to cover or close the slot F at street-crossings; but of course it may be applied along the entire track or length of the slot. The slot F, to the particular construction of which no claim is made, may be formed  
30 of the properly assembled or arranged side step-shaped beveled pieces, E E. The cap or plate D has chamfered or curved inner corner edges, as at *k*, to permit of the ready contact of the grip-shanks therewith, and so as to move  
35 it sidewise from over the slot upon the approach of the car and to permit of the passage of the latter.

The upper surface of the cap or plate D may be rounded or beveled off along the side edges  
40 to avoid the accidental abrupt contact of horses' feet therewith, which might result in the displacement or knocking of the plate or cap from its place over the slot.

The cap or plate is preferably in sections  
45 of two to twelve feet in length, and may be of iron or steel. Each of the plate or cap sections is provided at one of its side edges with two arms, *f f*, one arranged near each end, and directly in the plane of each arm *f* there  
50 depends from the under side of said arm a lug, *h*, which has also an arm or projection, *g*, con-

necting or formed therewith at one side near its lower end. Each arm *f* rests upon a block or seat, B, bolted, as at *a a*, to the outer side  
of one of the side pieces, E, of the slot F. The  
55 seats or blocks B are provided with chambers or sockets *h'*, in which are placed springs *e*, the sockets or chambers *h'* being diametrically contracted or reduced beyond the outer ends of said springs, as seen at *b*. 60

The pendants or lugs *h*, it will be seen, depend in the sockets or chambers *h'* of the blocks or seats B and their arms *g* enter the  
springs *e e*, and upon compression of said  
65 springs, as is the case when the grip-shanks have contact with the cap or plate sections, are projected into the contractions *b* of the  
said chambers. It will thus be observed that upon the escape of the grip-shank from each  
70 plate or cap section the latter will be automatically returned to its former position, again covering the slot, and be thus retained until similarly acted upon.

The cap or plate sections have particularly  
75 for their object to prevent the knocking of dirt or the falling thereof from the wheels, &c., of passing vehicles into the slots, as well as to prevent the accidental catching of the  
horses' feet in said slot at the street-crossings  
80 and elsewhere along the track.

*c* is a holding plate or chair having a right-angled cross-section, the vertical portion of  
which is bolted to the outer side of one of the side pieces, E, as at *d*, while immediately above  
the portion or surface having contact with  
85 said side piece it is provided with a lateral recess, *d'*, which provides for the reception of the plate or cap section as it is moved outward. The horizontal portion of the plate *c*  
90 overhangs or rests upon the plate or cap section and holds it down in position upon the side pieces, E. Instead of occupying its present position, the chair *c* may be formed integral with the cap or plate sections where are  
95 now provided the arms *f*, thus dispensing with the latter, as is apparent. This cap or plate, it will also be observed, prevents the wheels  
of vehicles accidentally dropping into the slots of the track, which has heretofore occurred, and from which the wheels have been  
100 considerably damaged.

Having thus described my invention, what I



claim as new, and desire to secure by Letters Patent, is—

1. The cap or plate covering the cable-track slot and having at one of its side edges arms  
5 resting upon blocks or seats, said arms having pendants, also provided with arms, in combination with springs placed in said seats or blocks, substantially as set forth.

2. The cap or plate covering the cable-track  
10 slot and having a lateral movement, in combination with the chair bolted or secured at one side of the slot and having its horizontal portion resting upon said plate or cap, and having a horizontal or lateral recess provid-  
15 ing for the reception of said plate or cap as it is moved laterally, substantially as set forth.

3. The combination of the cable-track having a gripper-receiving slot, the cap or plate sections curved or chamfered at the end edge 20 and having the lateral arms provided with pendants, also having arms, the chambered seats or blocks, the springs arranged in the chambers of said blocks or seats and in the chair having a lateral recess, and its horizon- 25 tal portion resting upon the top or plate section, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES DAVIS.

Witnesses:

F. G. FISCHER,  
A. A. HIGDON.