

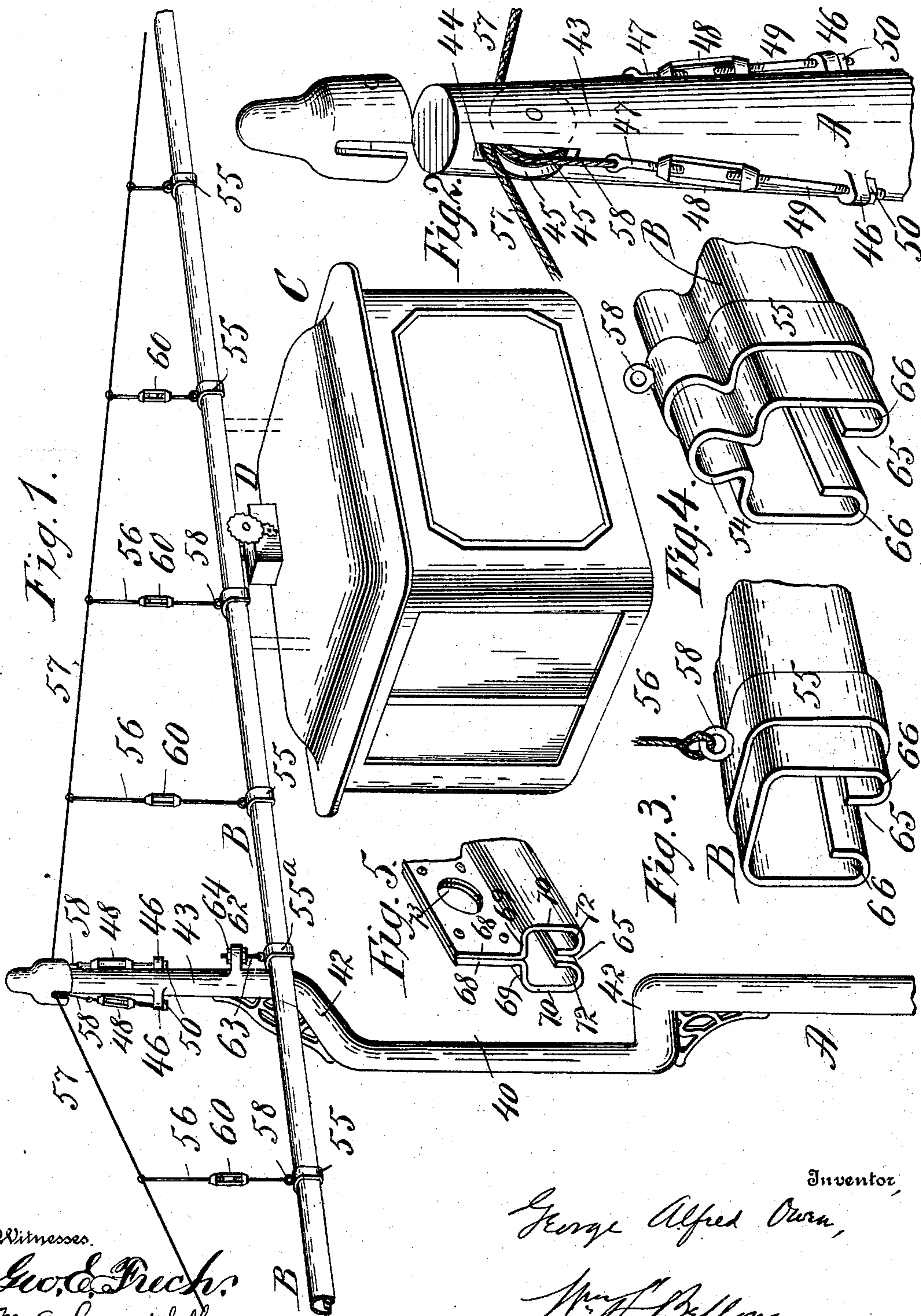
No. 698,548.

Patented Apr. 29, 1902.

G. A. OWEN.  
TRACK SUSPENSION APPARATUS.

(Application filed June 24, 1901.)

(No Model.)



Witnesses.

*Geo. C. Preck.*  
*M. A. Campbell*

By

Inventor,  
*George Alfred Owen,*  
*Wm. F. Bellone.* Attorney.

# UNITED STATES PATENT OFFICE.

GEORGE A. OWEN, OF SPRINGFIELD, MASSACHUSETTS.

## TRACK-SUSPENSION APPARATUS.

SPECIFICATION forming part of Letters Patent No. 698,548, dated April 29, 1902.

Application filed June 24, 1901. Serial No. 65,744. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. OWEN, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Track-Suspension Apparatus, of which the following is a full, clear, and exact description.

This invention relates to improvements in apparatus for the transmission of mail and other matter, and is applicable, for instance, in connection with such mail-transmission apparatuses or systems as are illustrated in Letters Patent of the United States issued to me July 2, 1901, Nos. 677,423 and 677,424.

The present improvements more particularly relate to the suspension means for the trackway on which the conveyer, which may be cable-propelled or electrically propelled, runs, the object being to provide forms of trackways having fitness for the purpose contemplated and having means for their support which are capable of maintaining the track in all portions of its length level or even and for rectifying or evening up the track, which after protracted use may have become uneven or "out of true."

The features of invention reside in the form of the posts which constitute the primary supports for the trackway; also, in the combination, with the posts, of the longitudinally strung or connected cables or the like from which the track is suspended and means for taking up any undue slackness in the cable; also, to the trackway and clips which embrace the same, having eyes by means of which, through depending supports, the track is supported; also, to the combination, with the longitudinal cables and the trackway, of the depending supports consisting of wires or rods having take-up devices individual thereto.

The invention also consists in the posts having offset portions whereby an unobstructed opening is provided for the passage of the conveyer in line with each post by the same and such posts having above the offset portions upward extensions constituting elevated supports for the track-supporting appliances; and the invention furthermore con-

sists in certain features and constructions, as particularly pointed out hereinafter and covered in and by the claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of the trackway, one of the series of supporting-posts therefor, and the track-supporting appliances. Fig. 2 is a perspective view of the upper portion of one of the posts, on a larger scale, illustrating the take-up devices for the longitudinally-extending support-cable. Figs. 3, 4, and 5 represent desirable forms of trackways which may be used in my improved apparatus, the same having characteristics and appliances hereinafter referred to.

In the drawings, A represents one of the posts, of which, as manifest, a series will be provided along the street at suitable intervals, as required. Each post has an offset portion 40, as produced by the two approximately right-angular bends 42, to give the clear space just below the trackway B for the free passage of the conveyer C, which may have a motor D for its propulsion, taking its driving-current from a feed-conductor, which may be provided through the trackway itself or through a feed-wire adjacent thereto, or the conveyer may be propelled by a constantly-running cable, both of which means of propulsion are illustrated in the aforesaid patent. The post has above the offset portion 40 the upwardly-extending post extension 43, having in its upper extremity the recess 44, in which are journaled the double sheaves 45 45, and below said recess 44 the post extension is provided with the oppositely-disposed lugs 46 46.

The suspension-cable 57 has one end portion thereof 58 connected to a member 47, which is threaded and forms part of the turnbuckle 48, the other threaded rod 49, which is threaded at both its ends, being screw-engaged with the turnbuckle and also engaged through the aforesaid lug 46 of the post extension, a confining-nut 50 being provided screwing on the rod member 49 and having an engagement under the lug. The cable 57, extending from the turnbuckle, passes over the sheave, and in a catenary line has a half-turn

around one of the sheaves 45 in the next post, its end being similarly connected through the turnbuckle appliance with the lug of such post.

5 The track B is at suitable intervals embraced by the clips 55, each of a form suitably corresponding to the track, and each is provided at its top with an eye 58. The depending connections 56, the upper ends of  
10 which are connected with the longitudinal cables 57, have supporting connections with the eyes 58 of said clips, and said depending connections comprise double wires or rods the approached ends of which are screw-  
15 threaded and have therewith connected the turnbuckles 60. Each post extension 43 just above the level of the trackway has the horizontally-extended lug 62, through which is inserted the upper extremity of a threaded  
20 rod which engages the eye of the adjacent track-supporting clip 55<sup>a</sup>, confining-nuts 64 being provided.

The leveling of the trackway may be, as manifest, done both at the time of installing  
25 the plant and at various times thereafter as occasion may require by operating the turnbuckles 48 for the longitudinal cables and by operating the turnbuckles 60 for the individual depending track-supports 56.

30 I may employ as the overhead-trolley track one having the form of a tube constructed with a bottom median slotway 65 and with trough-like longitudinal runner-ways 66 66 at both sides of the slotway, in which may  
35 run double wheels of a trolley from which the motor is suspended. This tubular form of trackway may be made of a cross-sectional form which comprises a median loop 54 at its top, which will greatly strengthen the track  
40 and stiffen it longitudinally. (See Fig. 4.) The track may advantageously have the construction and cross-sectional form illustrated in Fig. 5, the same being made of two strips of sheet metal each having a flat upper portion  
45 68, the outwardly-bent portion 69, the downwardly-bent portion 70, and the inwardly under-turned runner-forming portion 72, two of these like bent strips having the portion 68 thereof placed facewise in contact  
50 and riveted firmly together. The said united portions 68 in addition to having the capabilities of materially strengthening the track, especially longitudinally, and producing an efficient track cheaply and easily, further-  
55 more by the simple perforations 73 afford attachment means for the depending supports 56.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

60 1. In a track-supporting apparatus, of the character indicated herein, a post having an offset portion 40, and thereabove a post extension, combined with a trackway, having  
65 its position adjacent an upper part of the said offset portion 40, whereby the conveyer to

run suspended from the trackway may pass unobstructedly through the space within said offset portion of the post, longitudinal flexible supports extending from post to post, and  
70 depending connections between the latter and the track.

2. The posts having in the upper extension thereof sheaves 45 mounted to freely turn and provided with lugs 46, of the longitudinal cables, end portions of which are  
75 passed around the sheaves, and have connections with turnbuckles which are also connected with the said post-lugs.

3. The posts having in the upper extended portion thereof, recesses 44 and double sheaves mounted and freely rotatable therein, and provided with the lugs 46, of the cables 57, the end portions of which are passed  
80 around the sheaves in opposite directions, the trackway having supporting-eyes at its top and turnbuckles comprised in depending connections between intermediate parts of the longitudinal cables, and said track-supporting eyes and the turnbuckles 48, 48, having  
85 connections with the extremities of the longitudinal cables, and the post-lugs 46, 46.

4. The posts A having the double bends 42, 42, and intermediate offset portion 40, and the upper post extension 43 provided near the  
90 upper bend 42 with the angularly-extended lug 62, combined with the longitudinal cables supported from the upper portions of the posts, and having depending track-supporting connections, and screw-rods confined  
95 in, and depending below, the lugs 62, and having supporting connection with the track, serving to steady the latter adjacent the posts.

5. The trackway of tubular form having an underneath median slotway, and having a  
100 connected top eye, and the posts having from their upward extensions, the longitudinal cables and the depending track-supporting connections 56, the lower ends of which are connected with each of the eyes at the top of the  
105 track.

6. The trackway of tubular form having an underneath median slotway, and having an embracing-clip 55, provided at its top with an eye, of the posts having upward post  
110 extensions, the longitudinal cables and depending track-supporting connections 56, the lower ends of which are connected with each of the eyes provided at the top of the track.

7. Track-suspension appliances, and the track constructed as follows: the post A having the offset portion 40 and the upward post extension having in its upper extremity the  
115 recess 44, therebelow the opposite lugs 46, and also the lugs 62, the double sheaves 45, 45, in the recess, the longitudinal cable 67, end portions of which are passed around the sheaves, the double rods 47, 49, threaded and united by turnbuckles, one of each rod having connection with the end of the cable, and  
120 the other having a confining engagement with a post-lug 46, and the trackway having  
125  
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the clips 55, provided with the eyes 58, the  
depending connections 56 having connections  
with said eyes, and supported by the longi-  
tudinal cables, and intermediately provided  
5 with turnbuckles, rods 63 having support-  
ing connections with the post-lugs 62, and de-  
pending therebelow, and having a supporting  
and steadying connection with the portion

of the track adjacent the post, substantially  
as described. 10

Signed by me at Springfield, Massachusetts,  
this 21st day of June, 1901.

GEORGE A. OWEN.

Witnesses:

WM. S. BELLOWS,  
M. A. CAMPBELL.