

No. 634,888.

**Patented Oct. 17, 1899.**

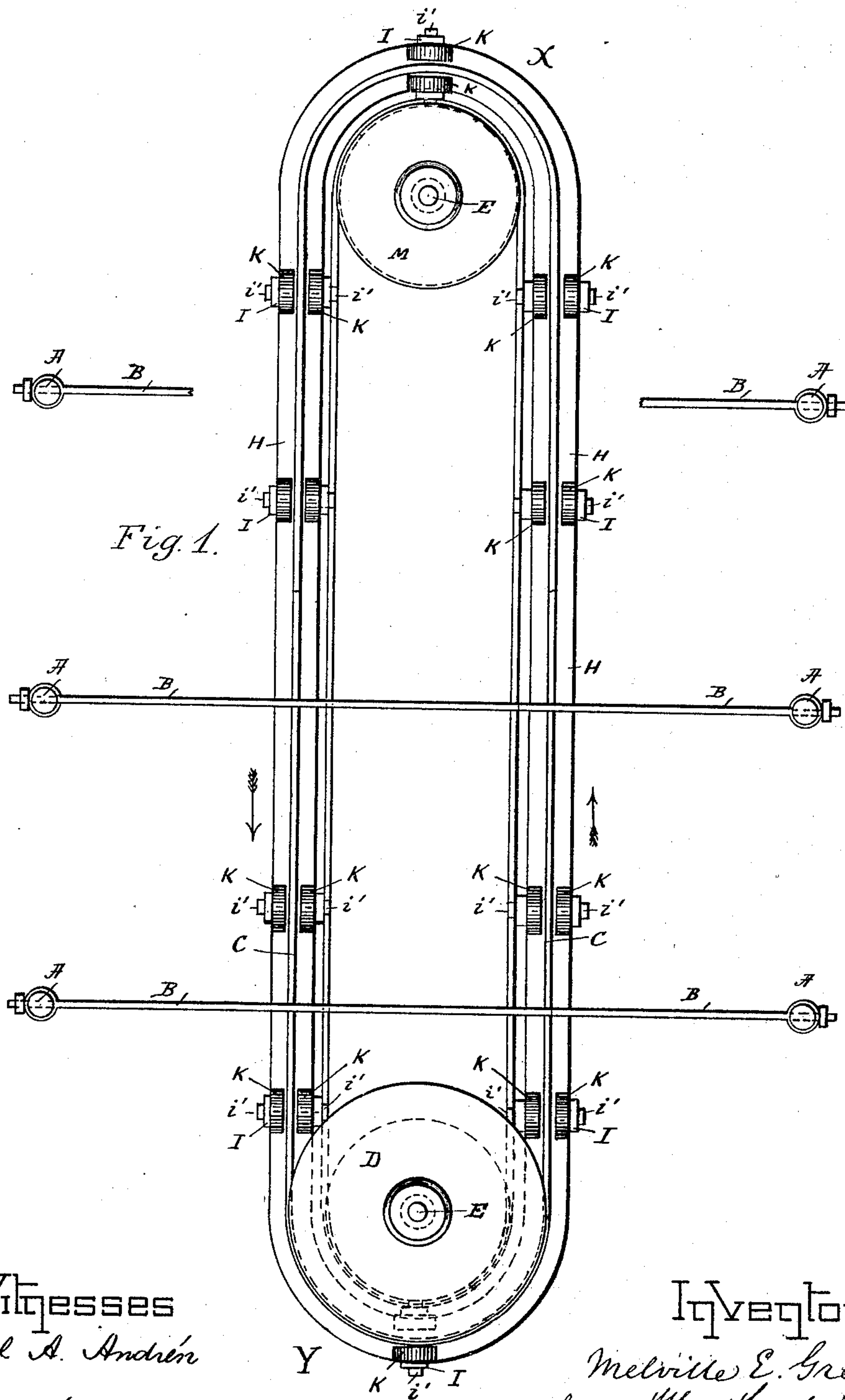
**M. E. GREY.**

**GOODS CARRYING APPARATUS.**

(Application filed Feb. 7, 1899.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses  
Karl A. Andrién  
Sydney Harris

Invegtor  
Melville E. Grey.  
by Alban Andrews  
his atty.

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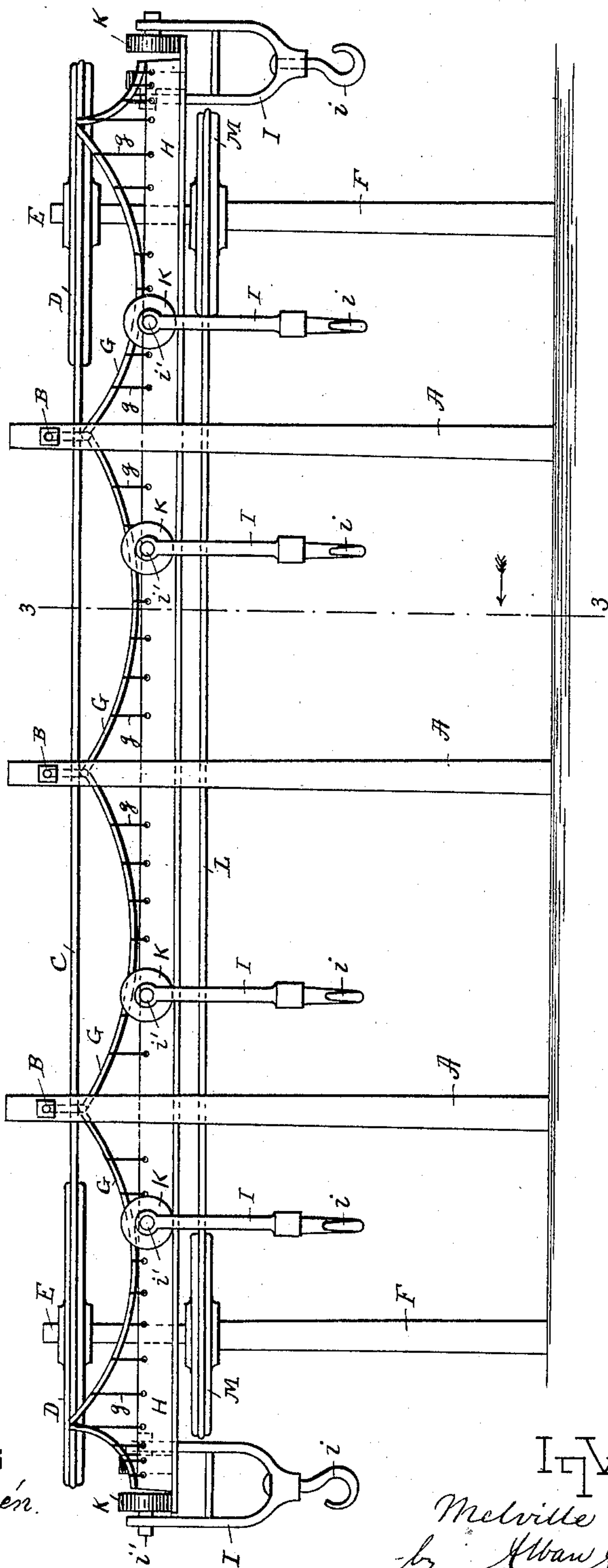
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Fig. 2.



Witnesses  
Karl A. Andren.  
Sydney Harris

Inventor  
Melville E. Grey.  
by *Karl A. Andren.*  
his atty.

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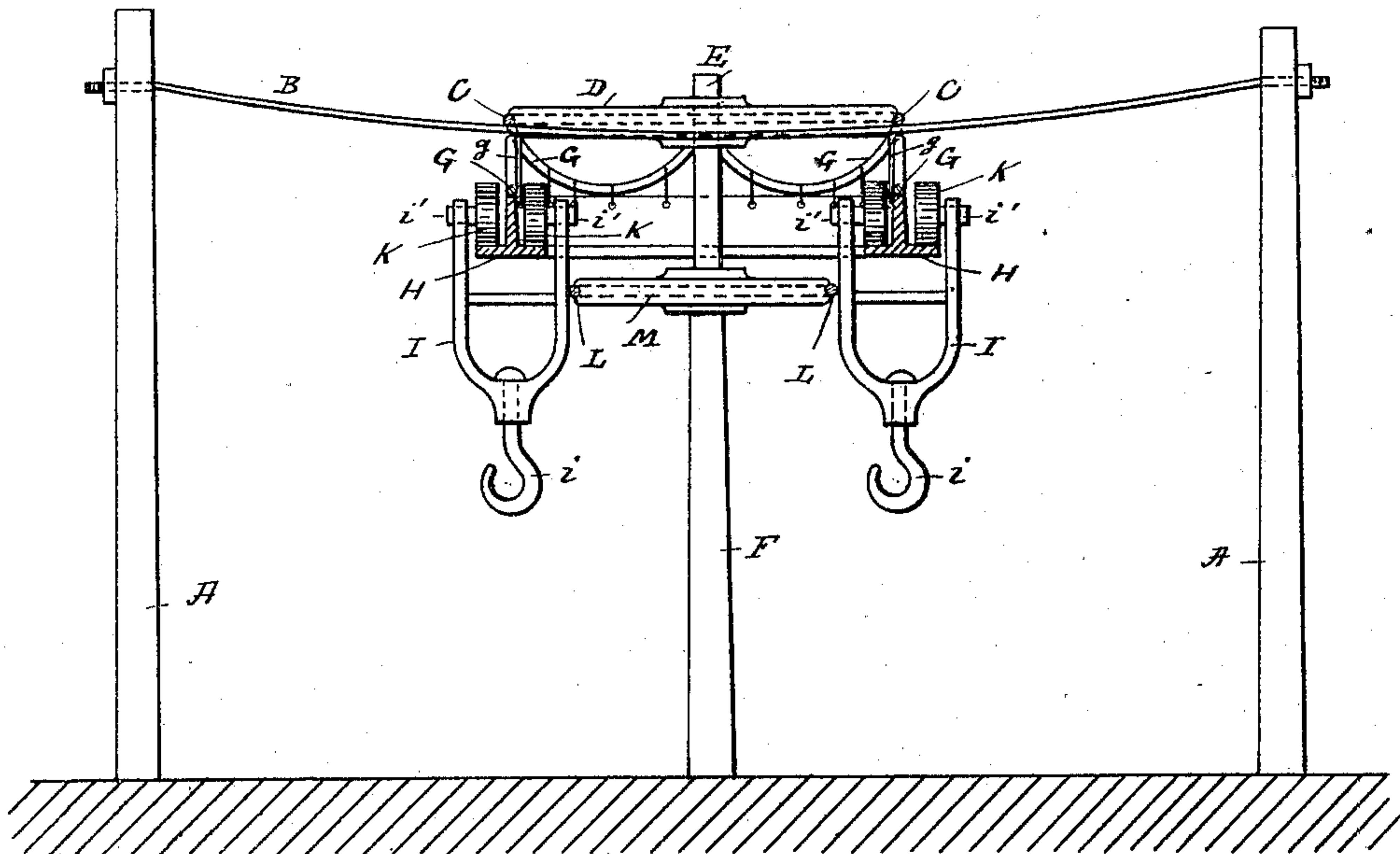
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3 Sheets—Sheet 3.

Fig. 3.



Witnesses

Karl A. Andrién.

Sydney Harris

Inventor

Melville E. Grey.

by Alban Andrién, his atty.



# UNITED STATES PATENT OFFICE.

MELVILLE E. GREY, OF BEVERLY, MASSACHUSETTS.

## GOODS-CARRYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 634,888, dated October 17, 1899.

Application filed February 7, 1899. Serial No. 704,803. (No model.)

*To all whom it may concern:*

Be it known that I, MELVILLE E. GREY, a citizen of the United States, residing at Beverly, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Goods-Carrying Apparatus, of which the following is a specification.

This invention relates to improvements in goods-carrying apparatus for the purpose of conveying goods of any kind—such as, for instance, lumber, stone, earth, coal, &c.—from one place to another upon an endless track in a manner as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a top plan view of the invention with a portion of the endless stationary girder shown as removed for the better illustration of the endless track and goods-carriers supported thereon. Fig. 2 represents a side elevation of Fig. 1, and Fig. 3 represents a cross-section on the line 3 3 shown in Fig. 2.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A A represent a series of upright posts, trees, or suitable natural objects, such as rocks, mountain sides, or any other convenient supports. To such posts or supports are secured at intervals transverse cables, chains, or ropes B B, which serve as means from which to suspend the endless girder and track for the goods-carriers, as will hereinafter be more fully shown and described.

In practice I prefer to secure to the transverse cables, &c., B B the endless cables C C, which are arranged parallel to each other in the direction in which it is desired to transport the goods. I prefer to support the end portions of such endless cables on stationary drums D D, which may be attached to the upper ends of vertical shafts E E, secured to posts F F or otherwise secured firmly in stationary positions. To the transverse cables, &c., B B or to the endless cables C C is secured the endless stationary girder, which is composed of looped cables, &c., G G, to which are attached a series of downwardly-extending rods or wires g g, having attached to their

lower ends the endless stationary track H, which is made T-shaped in section, as shown in Fig. 3. The said endless track H comprises two parallel ways, upon one of which the goods are conveyed to the desired location and the other serving for the return of the empty goods-carriers. The opposite ends of said endless track are semicircular or curved, as shown in Fig. 1.

The goods-supporting carriers are preferably composed each of a bail or frame I, provided at its lower end with a hook or equivalent device, to which the goods or receptacles for containing such may be temporarily secured. The upper end of each bail or frame I terminates as inwardly-projecting trunnions i' i', on which the wheels or rollers K K are journaled, as shown. Said wheels or rollers are supported on and made to roll upon the horizontal flanges of the T rail or track H, as shown. The said carriers are permanently or detachably connected at proper intervals to an endless cable L, carried on grooved pulleys M M, arranged at the opposite ends of said endless track H, as shown. Said grooved pulleys are loosely journaled on the spindles or shafts E E, as shown.

In case the track H should be arranged horizontally without any inclination it will be necessary to apply suitable power to one of the drums or pulleys M for the purpose of rotating it, and thus causing a motion to be imparted to the endless cable L and carriers connected thereto in the direction of arrows shown in Fig. 1. In case the track H should be inclined from the goods-receiving end X toward the delivery end Y such power for rotating one of the drums or pulleys M may be dispensed with, as the loaded carriers will cause them to run by gravity from X toward Y on account of the carriers on the return portion of the track H being empty, and consequently lighter.

The apparatus is very simple in construction and can readily be erected in woods or other localities for the purpose of automatically conveying goods of any description or nature from the desired receiving to the delivery end of the endless track.

What I wish to secure by Letters Patent and claim is—

The herein-described goods-conveying apparatus consisting in combination a series of posts or supports A A, transverse cables, B B connected to such supports, an endless girder  
5 attached to said transverse cables and composed of loops G G attached to the transverse cables, an endless T-shaped track H attached to said loops, a series of goods-carriers adapted to roll on said track and connected at intervals to an endless cable L supported on  
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wheels or pulleys M M at the opposite ends of the track substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 15

MELVILLE E. GREY.

Witnesses:

ALBAN ANDRÉN,  
KARL A. ANDRÉN.