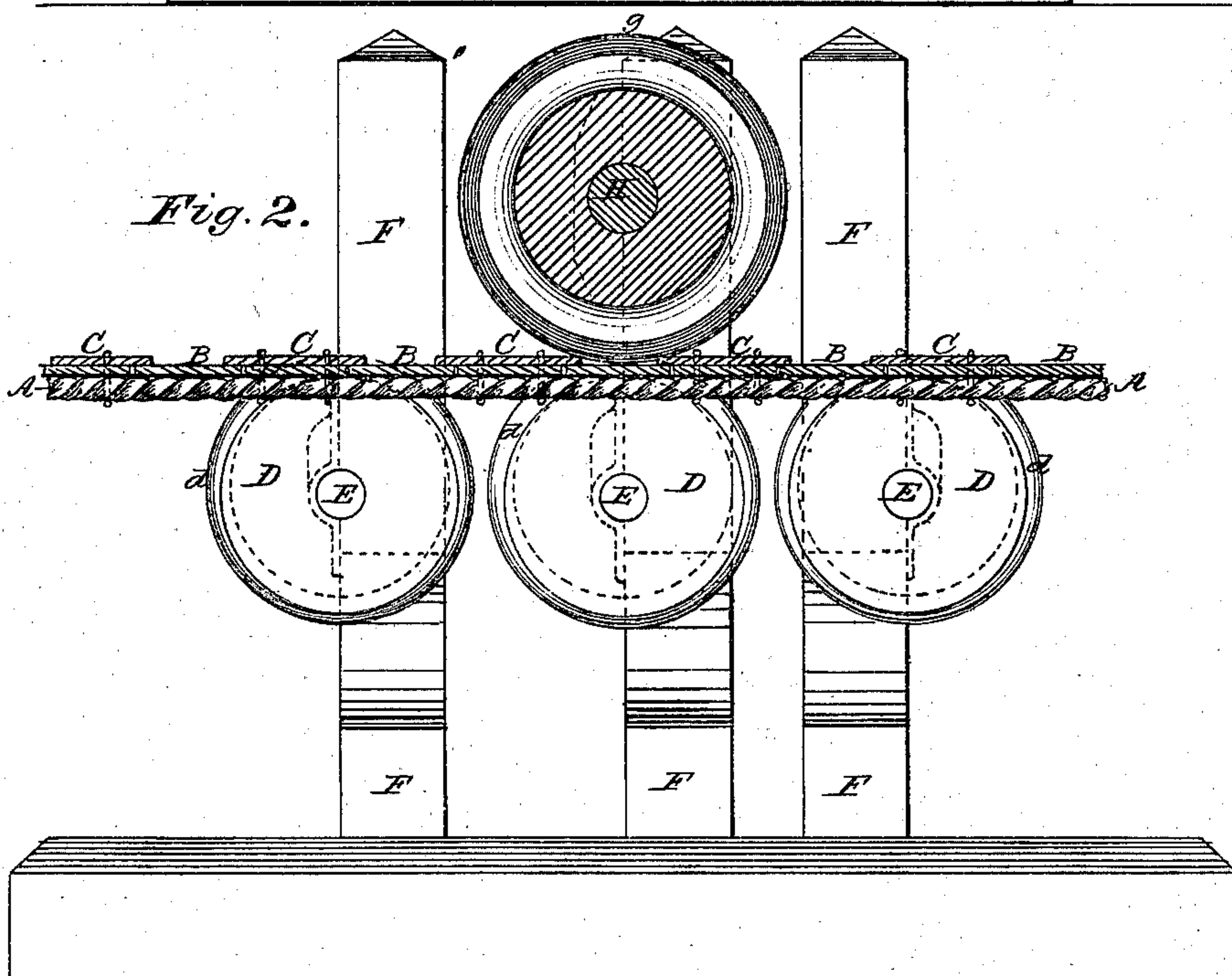
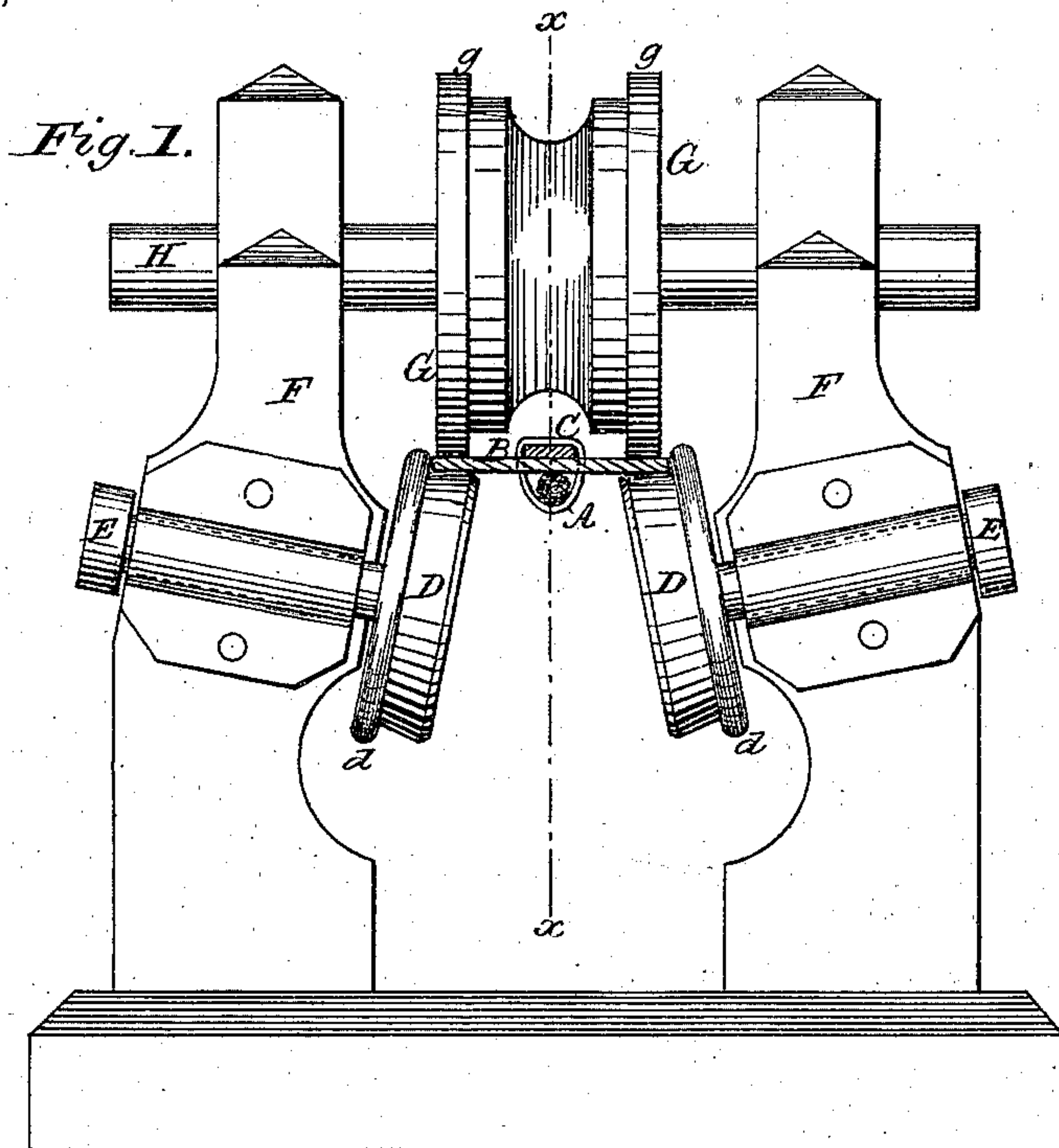


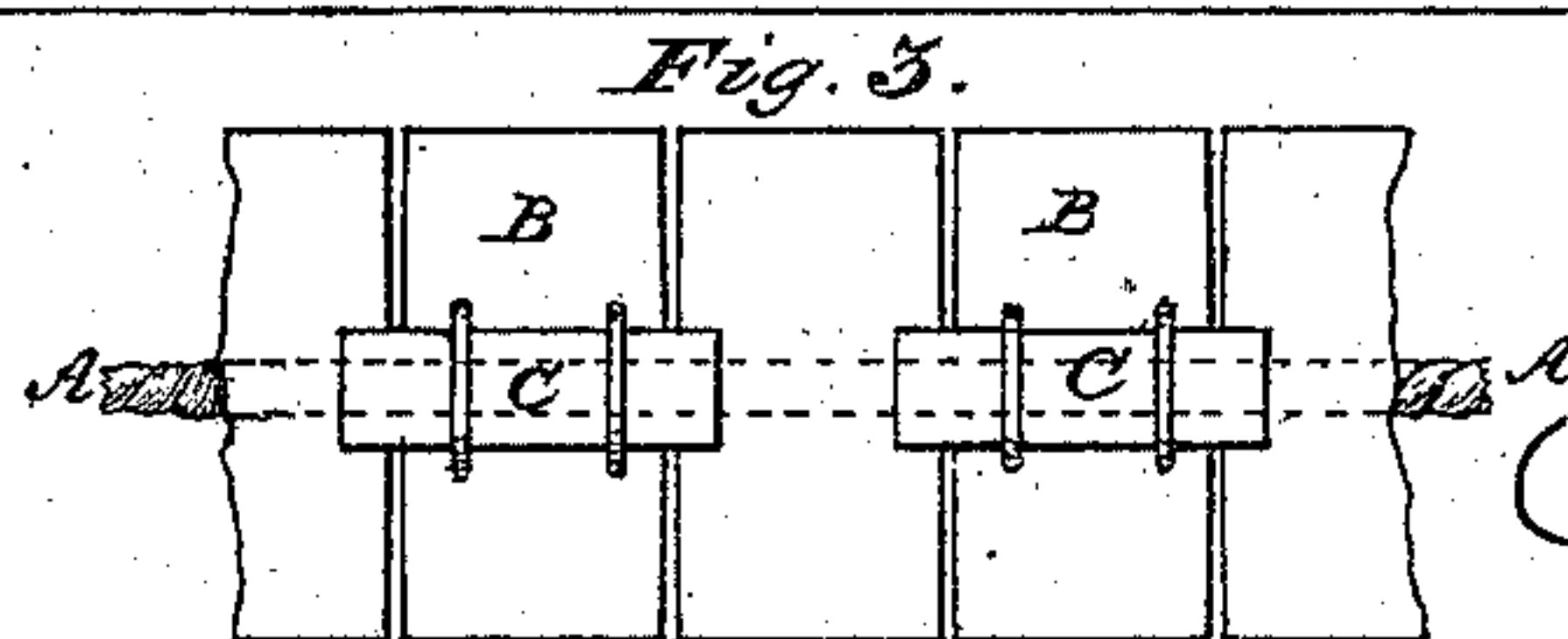
H. W. FARLEY.
Elevated Ways.

No. 137,667.

Patented April 8, 1873.



Witnesses:
John B. Young
M. Gardner.



Inventor:
H. W. Farley, by
Prindle and Co., his Attys

UNITED STATES PATENT OFFICE.

HENRY W. FARLEY, OF OSWEGO, ILLINOIS.

IMPROVEMENT IN ELEVATED WAYS.

Specification forming part of Letters Patent No. **137,667**, dated April 8, 1873; application filed March 8, 1873.

To all whom it may concern:

Be it known that I, HENRY W. FARLEY, of Oswego, in the county of Kendall and in the State of Illinois, have invented certain new and useful Improvements in Elevated Railways; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a front elevation of my improved device; Fig. 2 is a vertical central section of the same upon line *x x* of Fig. 1; and Fig. 3 is a plan view of the upper side of the carrier.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to enable cars or other articles to be transported for any distance with ease and dispatch; and it consists, principally, in the means employed for sustaining the rope in vertical and radial position, substantially as and for the purpose hereinafter specified. It consists, further, in the means employed for imparting a longitudinal motion to the rope, substantially as and for the purpose hereinafter shown.

In the annexed drawing, A represents a cable or rope constructed of or from wire, upon the upper side of which is placed a series of metal plates, B, that have a length equal to nearly twice their width, and are secured in place by any suitable means. Upon each second plate B is placed a plate, C, which has a width about equal to the diameter of the cable, and a length sufficient to enable it to extend over the contiguous edges of the plates B immediately in front and in rear of the plate to which it is attached. This arrangement of the plates B and C gives to the cable great rigidity against a vertical pressure that would otherwise cause it to curve downward, while at the same time they leave said cable free to bend around a pulley when used in an endless form. The carrier thus constructed is supported at suitable intervals by means of flanged rollers D, which are each attached to or upon the inner end of a shaft, E, that is journaled within a post, F, or an equivalent supporting-frame. In order to give

all possible space between said rollers for the passage of articles being transported by the cable, the shafts E are arranged at an angle, as shown in Fig. 1, and the peripheries of said rollers formed upon a corresponding opposite angle so as to occupy a horizontal line at their upper sides. The bearing and supporting rollers are arranged in pairs, and are placed opposite to each other, so as to receive the ends of each plate B simultaneously. In order to permit the cable to have sufficient lateral flexibility to turn curves, the plates B, while touching each other at their longitudinal centers, are cut away from thence outward in each direction, as shown in Fig. 3. Motion is imparted to the carrier by means of one or more wheels, G, which are each secured to or upon a suitably-journaled shaft, H, and have a breadth of face corresponding to the distance between the flanges *d* of a pair of rollers, D, and are provided near their ends with enlargements *g*, that are formed of or covered by elastic material. Each driving-wheel G is placed directly over a pair of bearing-rollers, D, and made adjustable toward or from the same, so as to enable the carrier-plates B to be firmly grasped between their peripheries. By causing said wheels to revolve the carrier will be moved in an opposite direction. In practice it is intended to have the carrier made continuous, and at each end of the route pass around a suitable pulley. When the length of the carrier is comparatively short one engine, operating through a driving-wheel, G, will be sufficient to operate the same; but when a long carrier is employed several engines will be required, said engines being arranged at suitable intervals, and either controlled directly by means of electricity so as to move simultaneously, or by the same means a system of signals are to be conveyed to those in charge of said engines, and their action thus rendered uniform.

The device described is applicable to the carriage of cars or any other articles, which are to be suspended from the lower side of the cable in any suitable manner, and, being comparatively cheap in construction and operation, can be employed with profit in place

where an ordinary railway would not pay expenses.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the cable A the plates B and C, when relatively arranged, substantially as and for the purpose specified.
2. In combination with the carrier as a whole the supporting-rollers D and driving-

wheels G, when relatively arranged, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of March, 1873.

HENRY W. FARLEY.

Witnesses:

F. COFFIN,
WILLIS FORBES.