

No. 679,649.

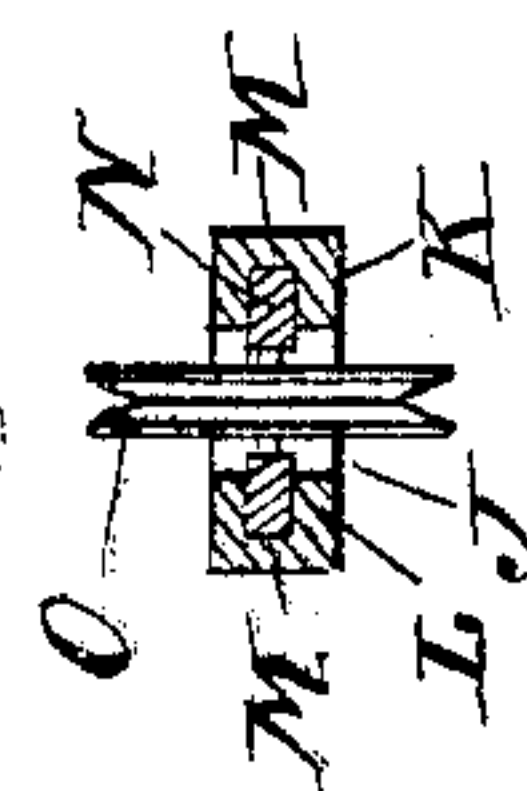
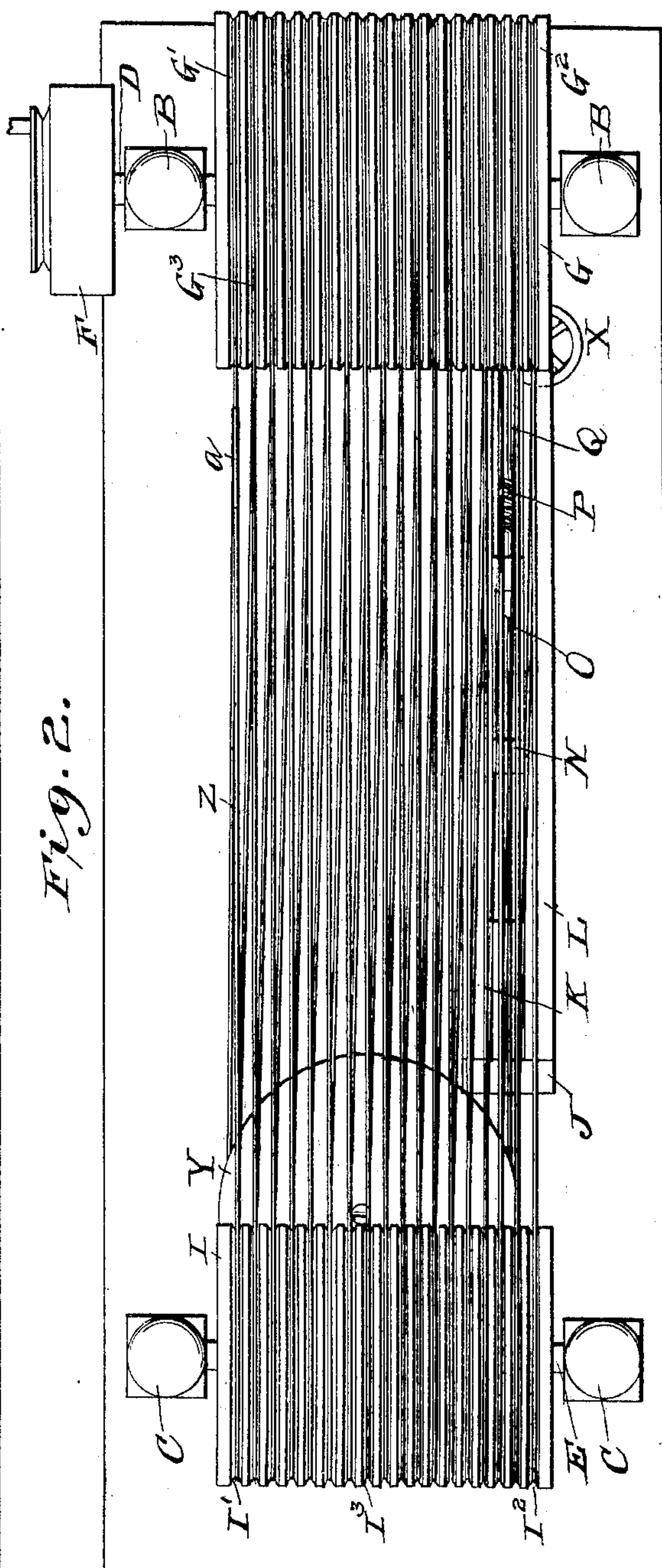
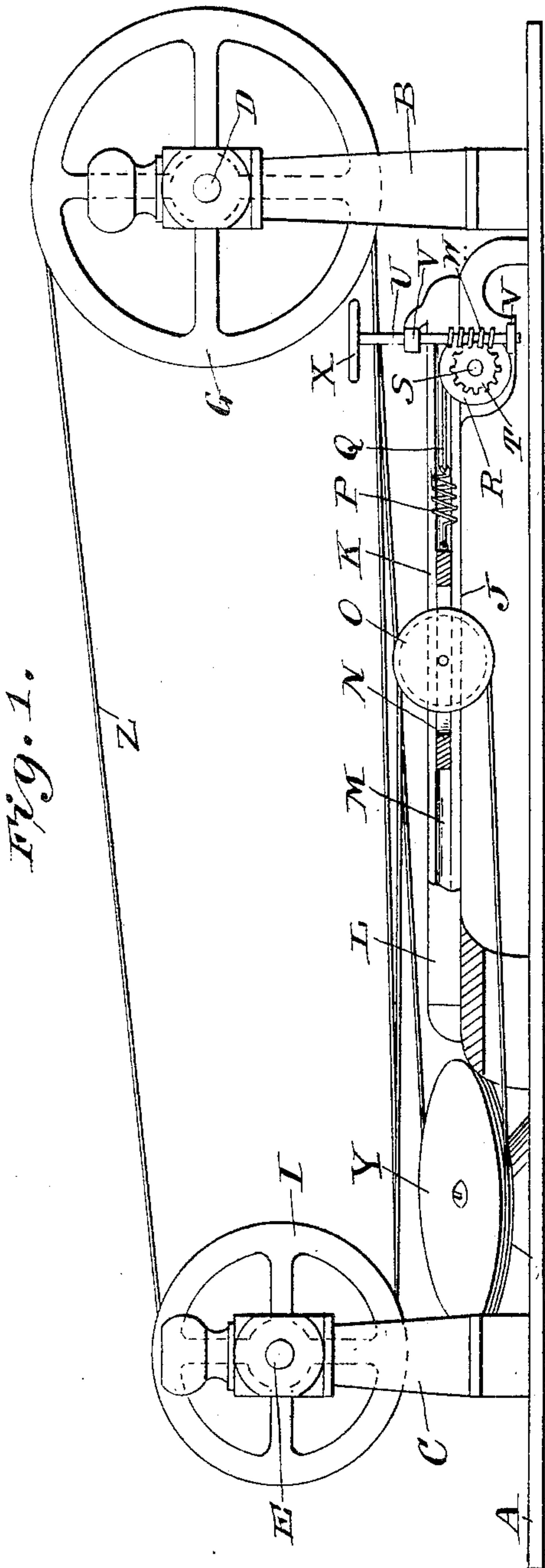
Patented July 30, 1901.

E. P. TIECHE.

ENDLESS CABLE POWER TRANSMITTER.

(Application filed Jan. 28, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

ERNEST P. TIECHE, OF NEWCASTLE, PENNSYLVANIA.

ENDLESS-CABLE POWER-TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 679,649, dated July 30, 1901.

Application filed January 26, 1901. Serial No. 44,863. (No model.)

To all whom it may concern:

Be it known that I, ERNEST P. TIECHE, a citizen of the United States, residing at Newcastle, in the county of Lawrence and State of Pennsylvania, have invented a certain new and useful Improvement in Endless-Cable Power-Transmitters, of which the following is a specification.

My invention relates to endless cable power-transmitters, and has for one object to provide a device which is simple and inexpensive in construction, easy to operate, and especially adapted for use in tin-mills, rolling-mills, steel-mills, &c., where a series of cables are employed for transmitting power from one wheel to another. Where a number of cables are employed, there is a frequent interruption of the operation of the machinery caused by the necessity for resplicing the various cables as they become stretched; and another object of my invention is to overcome this difficulty by employing a single cable with an ingeniously-constructed device for regulating its tension.

The invention consists in the construction, combination, and arrangement of the several parts, as hereinafter more fully described and claimed.

Referring to the drawings, Figure 1 is a side view in elevation, partly in section; Fig. 2, a top plan view; Fig. 3, a detail view, partly in section, of the frame, slidable plate, and pulley of the tension device.

In the drawings, in which like letters of reference denote like parts throughout the several views, A represents any suitable base for my device, and B and C two pairs of standards or posts rising therefrom at the opposite ends.

D and E are shafts mounted in the tops of the standards B and C, respectively.

F is a driving-pulley mounted on the shaft D. A wheel G is fixed to the shaft D between the standards B and is provided with end grooves G' and G² and intermediate grooves G³, and a wheel I of any desired diameter is fixed to the shaft E between the standards C and is provided with end grooves I' and I² and intermediate grooves I³.

J is a spring tension device comprising a frame K, with side pieces L, having grooves M, and a slidable plate N, adapted to slide in

said grooves and provided with a central slot, with a grooved pulley O mounted therein.

P is a spiral spring, one end attached to the plate N and the opposite end to the cable Q, which is attached to a small drum R, mounted on a shaft S.

T is a gear-wheel on the end of shaft S, and U is an upright shaft secured in bearings V on the frame K and provided with a worm-gear W, adapted to mesh with the gear-wheel T and with a hand-wheel X. The hand-wheel X is for the purpose of operating the worm-gear W and gear-wheel T and by winding the cable Q on the drum R to regulate the tension of the spiral spring P.

Y is a grooved transfer-pulley mounted at an angle on base A.

Z is an endless or continuous cable, the ends of which are spliced or otherwise connected together at a, made of any suitable metal or material.

The cable being endless, it really does not start from any particular point; but as a matter of illustrating the working of the same I will say that the cable travels from the groove G' of the wheel G to the groove I' of the wheel I and then passes successively from each of the intermediate grooves of the wheels G and I until it reaches the end groove I² of the wheel I. Then it goes around the pulley O, and thence around the transfer-pulley Y and back to the groove G' of the wheel G, where it started. The spring tension device J takes up all the slack in the cable Z and keeps the same taut.

It is obvious that my invention may also be used as a conveyer for merchandise, &c.

I do not wish to be limited to the precise construction as herein shown and described, as the same may be varied somewhat without departing from the spirit of my invention.

I do not make a separate claim for the belt-tightener in this application, but reserve the right to file a separate application for the same.

Having thus described my invention, what I claim is—

1. A power-transmitter provided with grooved wheels, a transfer-pulley, a cable adapted to run in the grooves of said wheels and around the transfer-pulley, and a tension device for said cable consisting of a frame, a

slidable plate, a pulley carried thereby, a drum, a cable thereon, a spring connecting said cable with the slidable plate, and means for operating said drum to adjust the tension
5 of the spring, substantially as shown and described.

2. A power-transmitter provided with grooved wheels, a transfer-pulley, an endless cable adapted to run in the grooves of said
10 wheels and around the transfer-pulley, and a device for taking up the slack in said endless cable, consisting of a frame, a slidable plate, a pulley carried thereby, a drum, a ca-

ble thereon, a worm and a gear-wheel for operating said drum, a hand-wheel on the worm- 15 shaft, and a spring one end connected to the slidable plate and the opposite end to the cable of the tension device, substantially as shown and described.

In testimony whereof I hereto affix my sig- 20 nature in the presence of two witnesses.

ERNEST P. TIECHE.

Witnesses:

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