

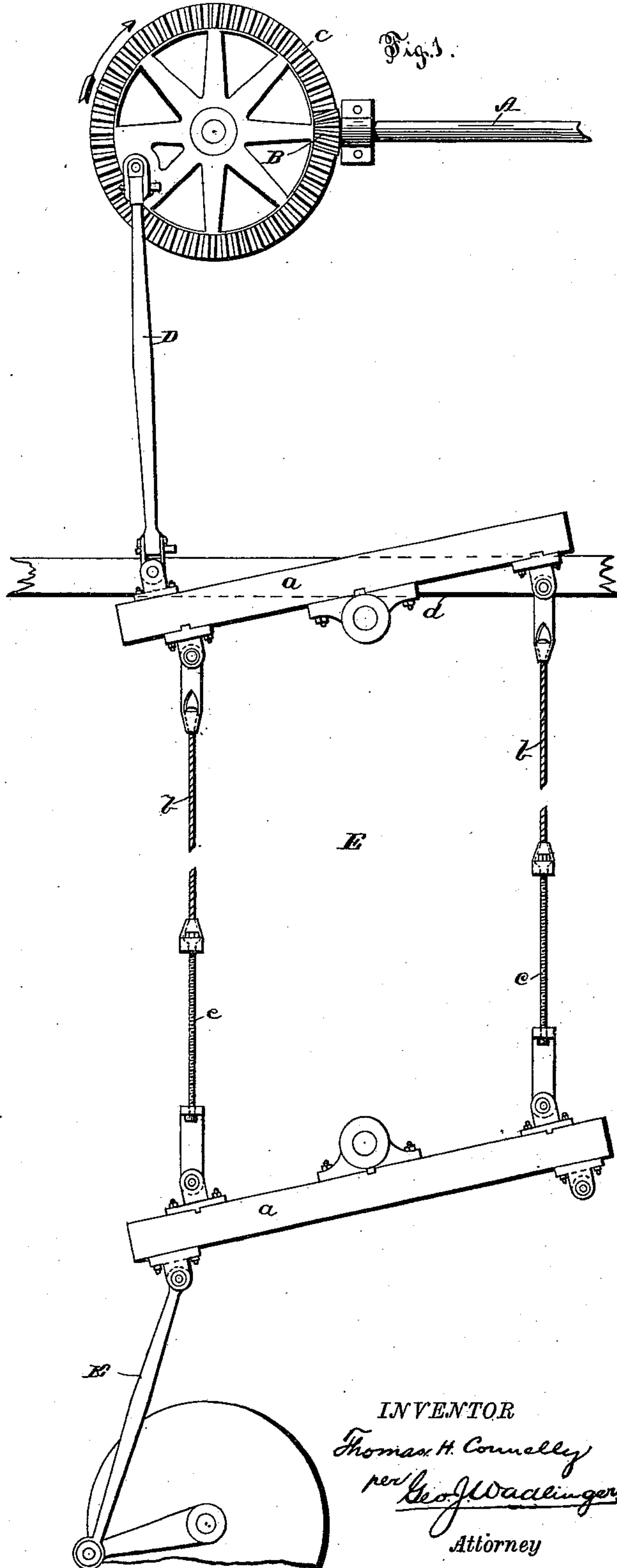
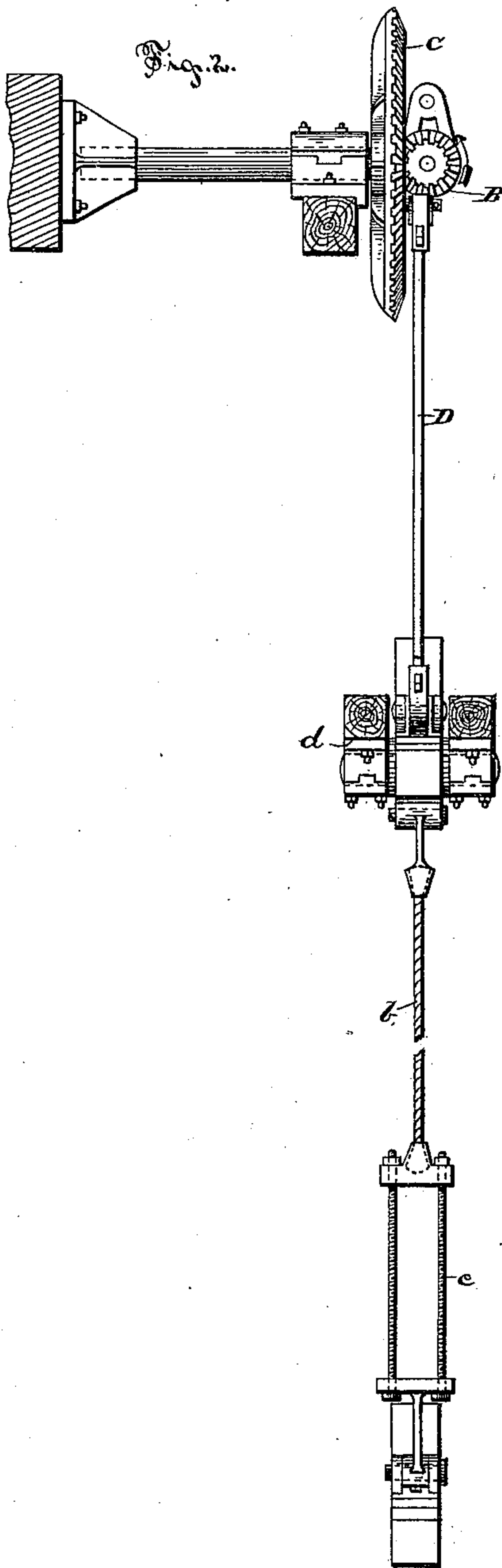
(No Model.)

T. H. CONNELLY.

DEVICE FOR TRANSMITTING POWER.

No. 354,692.

Patented Dec. 21, 1886.



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THOMAS H. CONNELLY, OF PHOENIX PARK, PENNSYLVANIA.

DEVICE FOR TRANSMITTING POWER.

SPECIFICATION forming part of Letters Patent No. 354,692, dated December 21, 1886.

Application filed July 29, 1886. Serial No. 209,418. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. CONNELLY, a citizen of the United States, residing at Phoenix Park, in the county of Schuylkill and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Transmitting Power; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to devices for communicating motion from one point to another at a distance therefrom, and while applicable to many situations is particularly useful in transmitting power from an outside source to pumping or other machinery located within mines or like places where economy of space is desired, or where it would be impossible or inconvenient to have the engine proper or other motive power.

My object is to provide a simple and economical mechanism for transmitting the power from an engine or other source located outside of the mine to a machine or machinery within the same through an intermediate cable and frame, which may be of any extent to correspond to the depth of the mine.

The invention consists, primarily, of an oscillating frame composed of two end pieces centrally mounted, one at the surface and one in the mine, their ends being connected by cables with a suitable connection at one or both ends of each of the oscillating end pieces, whereby at the upper part motion is communicated to the frame, and at the lower end transmitted to the machinery within the mine or other place.

In the drawings, Figure 1 represents the driving machinery located outside of the mine, with the frame for transmitting the power to the interior of the mine. Fig. 2 represents a side elevation of the frame, showing the supporting-timbers in section.

It will be understood that while I have shown the mechanism as arranged vertically, it may be located horizontally or at an angle, though the latter situation would probably prove rare.

In the figures, A represents the driving-shaft of the engine or other motive power located outside of the mine or similar place where my

invention would be used; and B represents the beveled gear mounted on said shaft meshing with a crown-wheel, C, having a wrist-pin set in its face, to which is secured a pitman, D. Instead of the connections described, it will be obvious that other and equally well-known attachments may be used for the purpose.

The pitman D is connected at its lower end to one corner of the frame E, and gives a vibratory movement to the frame proper, but a vertical reciprocating movement to the longitudinal sides thereof. This frame is composed of the end pieces, *a a*, one being located at the entrance to the mine or in proximity thereto, while the other is arranged within the mine or other place in convenient position to operate the machinery through suitable connections, similar to those above described, it being understood that these end pieces must be in such relative positions as to be in direct line with each other. They are pivoted centrally on trunnions *d*, as shown in Fig. 2, or in any other suitable manner. The ends of the pieces *a a* are connected by parallel cables *b b*, which are pivotally secured thereto, so that though the pieces *a a* move in the arc of a circle the parallel cables will be reciprocated vertically. The cables are of the same length, and are provided with tightening devices, either such as those shown at *c* in Fig. 2 or of any other suitable for the purpose. The cables upon each side being drawn taut, it will be seen that the power applied through the pitman D will be transmitted through the cables to the opposite end of the frame, and from thence to the machinery to be driven, either by means of a pitman, K, as shown in Fig. 1, or by other suitable connection. The downward movement of the pitman, when connected to the left-hand end of the frame, will have the effect of a push upon the cable of this side and a pull on that of the opposite side, and as both are taut there can be no slack, whatever be the length of the cables.

In case the mechanism should be used at an angle or horizontally, it would be desirable to use supporting and guiding pulleys for the cables to take off any strain upon them.

Instead of having a pitman-connection at one corner of the frame, a second pitman may be connected with the opposite corner to give

increased power, and the same arrangement may be provided below, so as to transmit the power to two different machines or machinery without in any degree impairing the efficiency
5 of the apparatus or lessening its power.

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

10 A device for communicating motion, consisting of two straight rocking beams, one arranged to receive motion from any source of power and the other to transmit the same, and intermediate cables arranged parallel to each

other throughout their whole extent between the rocking beams, and fixed directly to the
15 inner opposite ends of said beams upon each side of the pivotal point thereof, whereby a practically rigid frame is provided, combined with suitable connections for receiving and transmitting power, as set forth.
20

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

THOMAS H. CONNELLY.

Witnesses:

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