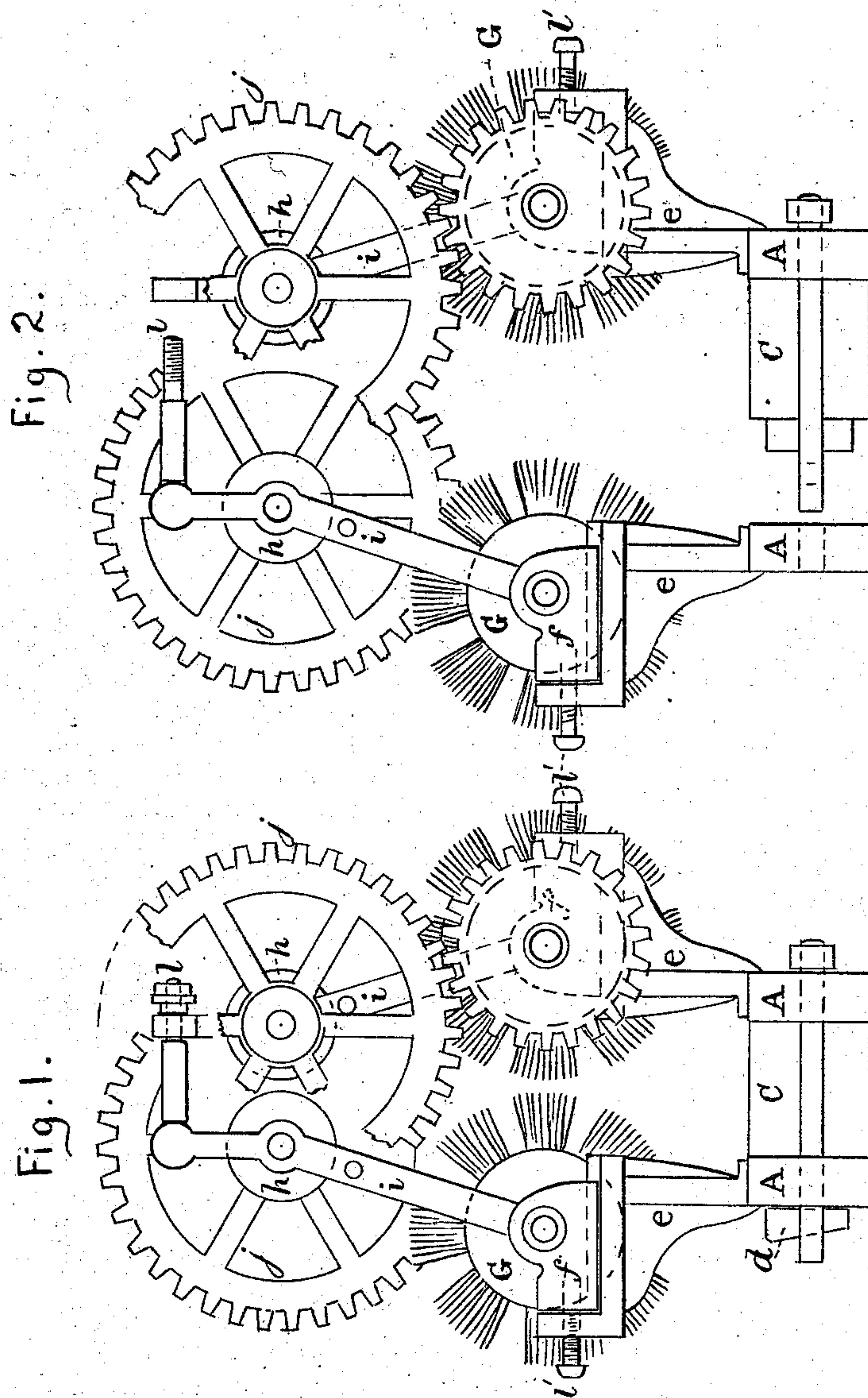


R. COTTER.

Machines for Cleaning Wire Cables.

No. 155,012.

Patented Sept. 15, 1874.



Witnesses :

H. A. Daniels

Will. B. Mason

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UNITED STATES PATENT OFFICE.

RICHARD COTTER, OF VIRGINIA CITY, NEVADA.

IMPROVEMENT IN MACHINES FOR CLEANING WIRE CABLES.

Specification forming part of Letters Patent No. **155,012**, dated September 15, 1874; application filed April 6, 1874.

To all whom it may concern:

Be it known that I, RICHARD COTTER, of Virginia City, Storey county, State of Nevada, have invented a Device for Cleaning Wire Cables; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to a device for cleaning any kind of wire cables, such as are used by mining companies for hoisting and other purposes. These cables, when they become dirty and rusty, are usually cleaned by hand, either by scraping or by being struck with a club, so as to loosen and knock off the scale and dirt.

Referring to the accompanying drawings, A A represent two base timbers of a frame, for supporting the mechanism which I employ. These timbers are separated by short transverse timbers C C, one end of each timber being secured permanently to one of the timbers A, while the opposite ends are secured to the other timber, A, by keys *d d*, so that the frame can be separated into two parts, when desired. Two vertical standards, *e e*, are secured to each of these timbers, and to the upper end of each of the standards is secured an adjustable journal-box, *f*, having a set-screw, *v*. G is a cylinder, which is provided with numerous radiating steel arms, thus forming a cylindrical brush. One of these cylindrical brushes is supported by a proper shaft in the boxes *f* of each pair of standards *e e*. Above the brushes two friction-rollers, *h h*, are supported close together, by bracket-arms *i i* from the standards *e e*. A large spur-wheel, *j*, is attached to the extremity of each of the journals which support the rollers *h h*, one being placed at each end, and these wheels engage with pinions on the journals which support the brushes, as shown.

To adjust the machine upon the cable, the two halves are taken and placed in position, one half upon each side of the cable; the tim-

bers A A are then keyed together, thus fastening the machine to the guide-posts at the top of the shaft. The friction-rollers are tightened against the rope by two set-screws, *l l*, above the rollers. When these are taken off the friction-rollers separate and swing downward around the brushes, until the large gear-wheels come in contact with the timbers A. The boxes which support the brushes are then adjusted toward each other, so as to cause the steel bristles to properly scrape the cable.

When the machine has been thus placed in position for work, and the cable or rope is slacked off, the weight of the descending-cage will draw the rope through between the rollers, and they, being drawn tight against the rope, will be forced to revolve, and, being connected with the brushes by gearing, the brushes will also be revolved.

When the rope is reversed and drawn up, the action of the rollers and brushes will be reversed also, thus cleaning the rope or cable without stopping work and with little trouble.

Every third or fourth row of bristles should be placed edgewise, so as to cause their extremities to work in the creases of the cable.

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

1. The two half-frames, consisting of the timbers A with their vertical standards *e*, cylindrical brushes G, spur-wheels *j*, and pinions K, arranged to be connected together after they are placed in position upon opposite sides of the rope to be cleaned, substantially as above specified.

2. In combination with the cylindrical wire brushes G, the friction-rollers *h h*, spur-wheels *j*, and pinions K, substantially as and for the purpose above described.

In witness whereof I hereunto set my hand and seal.

RICHARD COTTER. [L. S.]

Witnesses:

W. H. BURRALL,
J. G. FARRINGTON.