J. WALSH.

Instrument for Cleaning Telegraph Wires.

No. 197,067. Patented Nov. 13, 1877.

Fig. 1.

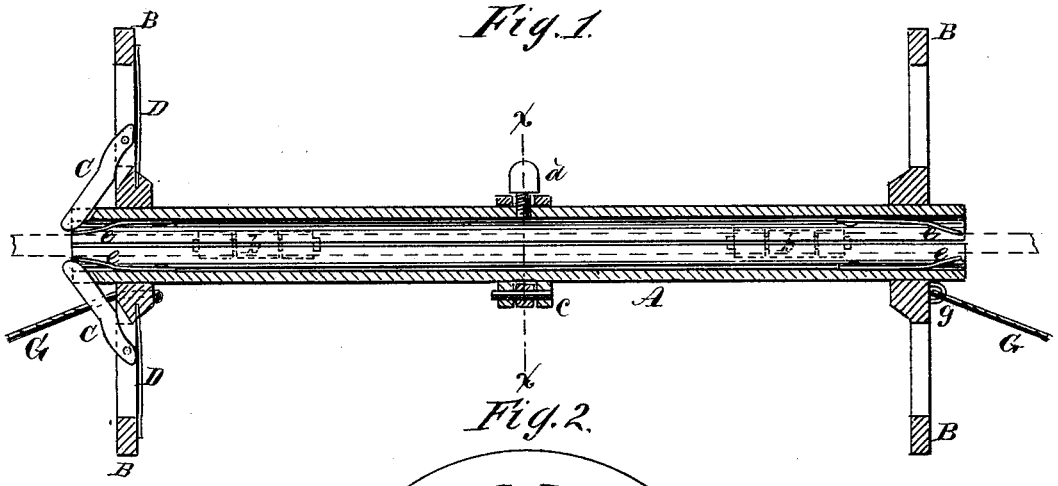


Fig. 2.

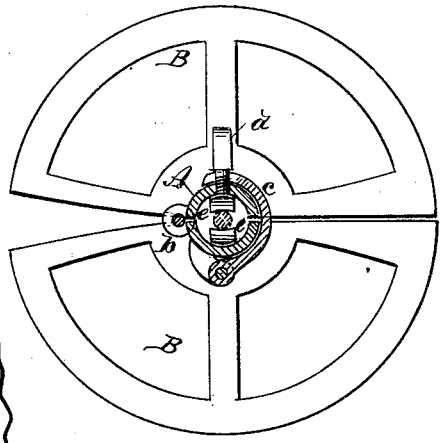
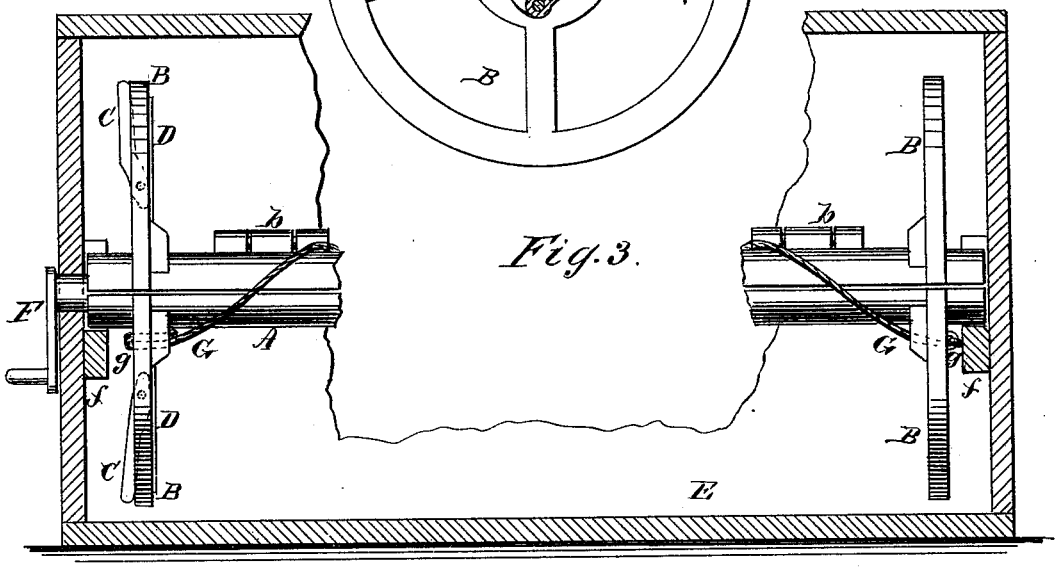


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH WALSH, OF NEW YORK, N. Y.

IMPROVEMENT IN INSTRUMENTS FOR CLEANING TELEGRAPH-WIRES.

Specification forming part of Letters Patent No. **197,067**, dated November 13, 1877; application filed October 6, 1877.

To all whom it may concern:

Be it known that I, JOSEPH WALSH, of the city, county, and State of New York, have invented a new and Improved Instrument for Cleaning Telegraph-Wires, of which the following is a specification:

Figure 1 is a longitudinal section of my improved instrument. Fig. 2 is a transverse section taken on line *x x* in Fig. 1. Fig. 3 represents the instrument in its case.

Similar letters of reference indicate corresponding parts.

My invention consists in a longitudinally-divided tube, which is hinged together at one side, and provided with a fastening device at the other side, and is furnished with internal spring-knives, and with flanges at its ends, in the face of which there are knife-blades, which are arranged to fold up when not in use.

In the drawings, A is a longitudinally-divided tube, which is connected at one side by hinges *b*, and at the other by a hasp, *c*, which is hinged to one of the halves of the tube, and is fastened to the other side by means of a thumb-screw, *d*, which clamps the slotted end of the hasp to the tube.

At the ends of the tube spring-knives *e* are secured to its inner surface, with their free cutting-edges a small distance within the end of the tube. The cutting-edges of these knives are concaved to conform to the surface of the telegraph-wire, and are turned outward slightly to admit of passing over the splices of the wire.

An apertured segmental flange, B, is secured to each half of the tube A, near its ends, and in them, at one or both ends of the instrument, two or more knife-blades, C, are pivoted on diametrical lines drawn through the tube A and its flanges. These blades have shoulders that move against springs D, that hold the blades either opened or closed. When the blades are opened their free ends rest in notches cut in the end of the tube A, and their backs touch the spring-knives *e*.

The instrument is fitted to a box, E, having sockets *f*, which form bearings for the ends of the tube A. One end of the box is apertured to receive a key, F, which is fitted to the end of the tube A.

A swiveled eye, *g*, is attached to one or both of the flanges for receiving the cord G, which is employed in operating the instrument.

When the instrument is not in use it is placed in the box E, and the cord G is wound upon the tube A by turning the key F. When the instrument is to be used the operator takes the end of the cord G, and clamps the pole that supports the wires. The instrument is now drawn up by means of the cord, and the tube A is opened, placed on the wire, (which is indicated in dotted lines in the drawing,) and fastened together, the knife-blades C are placed in the position shown in Fig. 1, and the free end of the cord G is dropped. An assistant, who stands upon the ground, takes the cord and draws the instrument along the wire to the next pole, and returns it in the same manner to the operator, who removes it from the wire just cleaned and places it upon another, when the operation is repeated.

It is obvious that, as the instrument is drawn over the wire, the knives will remove the kite-tail strings and similar objects that are frequently seen hanging from the wires.

Anything of a nature that does not admit of cutting is moved along the wire by the instrument to the operator, who removes it by hand.

The edges of the segmental flanges B form a stop, which prevents the opening of the tube A beyond a prescribed distance, and the opening between the flanges forms a guide, which facilitates placing the instrument on the wire.

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

1. The longitudinally-divided tube A, having the hinges *b* and hasp *c*, and provided with spring-knives *e*, substantially as and for the purpose herein shown and described.

2. The combination of the segmental flanges B with the divided tube A, substantially as herein shown and described.

3. The combination of the knife-blades C with the flanges B, substantially as herein specified.

JOSEPH WALSH.

Witnesses:

C. SEDGWICK,

ALEX. F. ROBERTS.