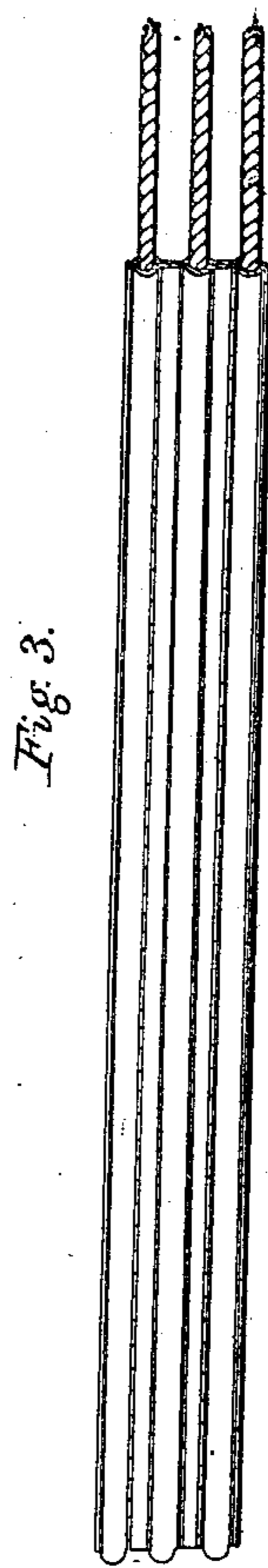
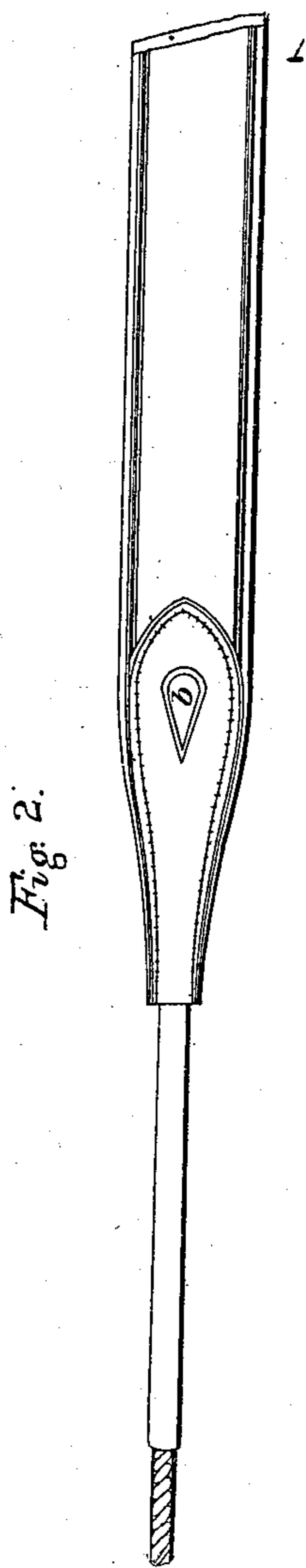
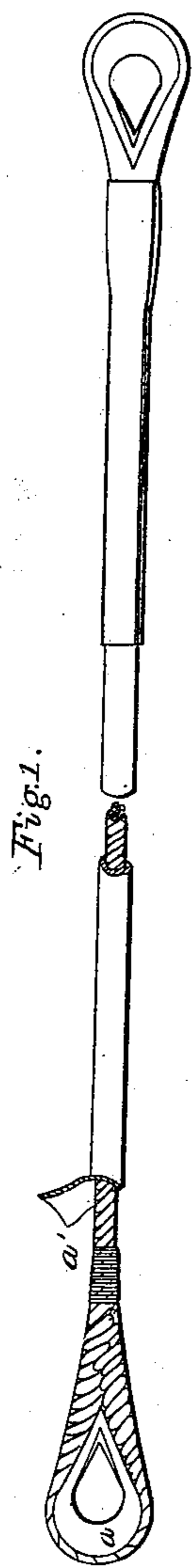


A. R. REESE.  
WIRE HARNESS.

No. 41,860.

Patented Mar. 8, 1864.



Witnesses

B. Robinson.  
Fr. Schmidt.

Inventor

Adam R. Reese  
by his attorney  
Baldwin & Son.

# UNITED STATES PATENT OFFICE.

ADAM R. REESE, OF PHILLIPSBURG, NEW JERSEY.

## WIRE HARNESS.

Specification forming part of Letters Patent No. 41,860, dated March 8, 1864.

*To all whom it may concern:*

Be it known that I, ADAM R. REESE, of Phillipsburg, in the county of Warren and State of New Jersey, have invented a certain new and useful Improvement in Wire Harness; of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 represents portions of a trace embracing my invention. Fig. 2 shows my method of attaching the lines to the reins; and Fig. 3 represents a modification of my invention, as applied to flat parts of bridles or harness.

It is the object of my invention to make bridles and harness strong, light, durable, cheap, and ornamental; and to these ends my invention consists, first, in the employment of wire rope or cord for bridles and harness; secondly, in constructing loops upon the ends of the wire ropes or cords, so as to make their ends nearly solid metal.

In order to carry out the object of my invention, I take iron wire, rope, or cord of the ordinary construction, or cord or rope of copper wire or other suitable metal, and cut it of the necessary lengths for the parts of bridles or harness in which it is to be used. This wire rope or cord may be used as it comes from the hands of the manufacturer, or it may be drawn through dies to render it smooth and compact, and to equalize the strains upon its several strands or wires. The wire rope thus prepared may be used alone or covered, as hereinafter described.

To form the loops at the ends of the bridle or harness pieces, I turn a loop of the wire around a metal grommet, *a*, of proper shape, and reduce the size of the rope by tapering the wires at its short end, so as to fit neatly on the body of the rope or cord, as shown at *a'*, Fig. 1, and wrap the reduced end on the body of the rope or cord with fine wire, and firmly cement the grommet and wires with hard or soft solder, which makes a solid, or nearly solid, metal loop, which can be dressed to the form required for attachment to any part of the bridle or harness. In the trace, for example, both loops may be formed to fit

the single-tree; or the loop at the forward end of the brace may be made to fit the loop, hook, eye, or joint in the hames, while the rear loop may be made to fit the single-tree fastening, of whatever form it may be.

For attachment to straps or buckles in the bridle-cheek, or reins or straps, or buckles for the harness, the loops may be flattened and punched for rivets, or perforated for stitches, to make a secure and neat connection and give a smooth finish to the parts at the point of union.

To protect my improved harness from friction and corrosion, and to give it any desired ornamental finish, I cover the wire rope or cord with a hard-rubber composition, or one of gutta percha, and vulcanize it; or I cover it with leather, and finish the leather covering with ornamental stitching, as shown in Fig. 2; or I plate the iron or other base metal wire rope or cord with any of the precious metals, and this may be done in any of the usual modes of plating upon the finished rope or cord, or upon the several strands before the rope or cord is spun or laid.

In order to make the bridle or harness with flat parts instead of round, under my invention, it is necessary either to flatten the wire rope or cord by rolling or hammering it, or to use fine cords and unite them with a leather or other covering, as shown in Fig. 3. When the latter mode is adopted, it is obvious that the whole number of cords must be united at the ends in the manner hereinbefore described to form the solid terminating loops.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The use of wire rope or cord in bridles or harness, substantially in the manner and for the purposes set forth.

2. The formation of solid loops in wire harness, substantially in the manner and for the purposes set forth.

In testimony whereof I have hereunto subscribed my name.

ADAM R. REESE.

Witnesses:

EDMUND TEEL,  
LEWIS A. REESE.