

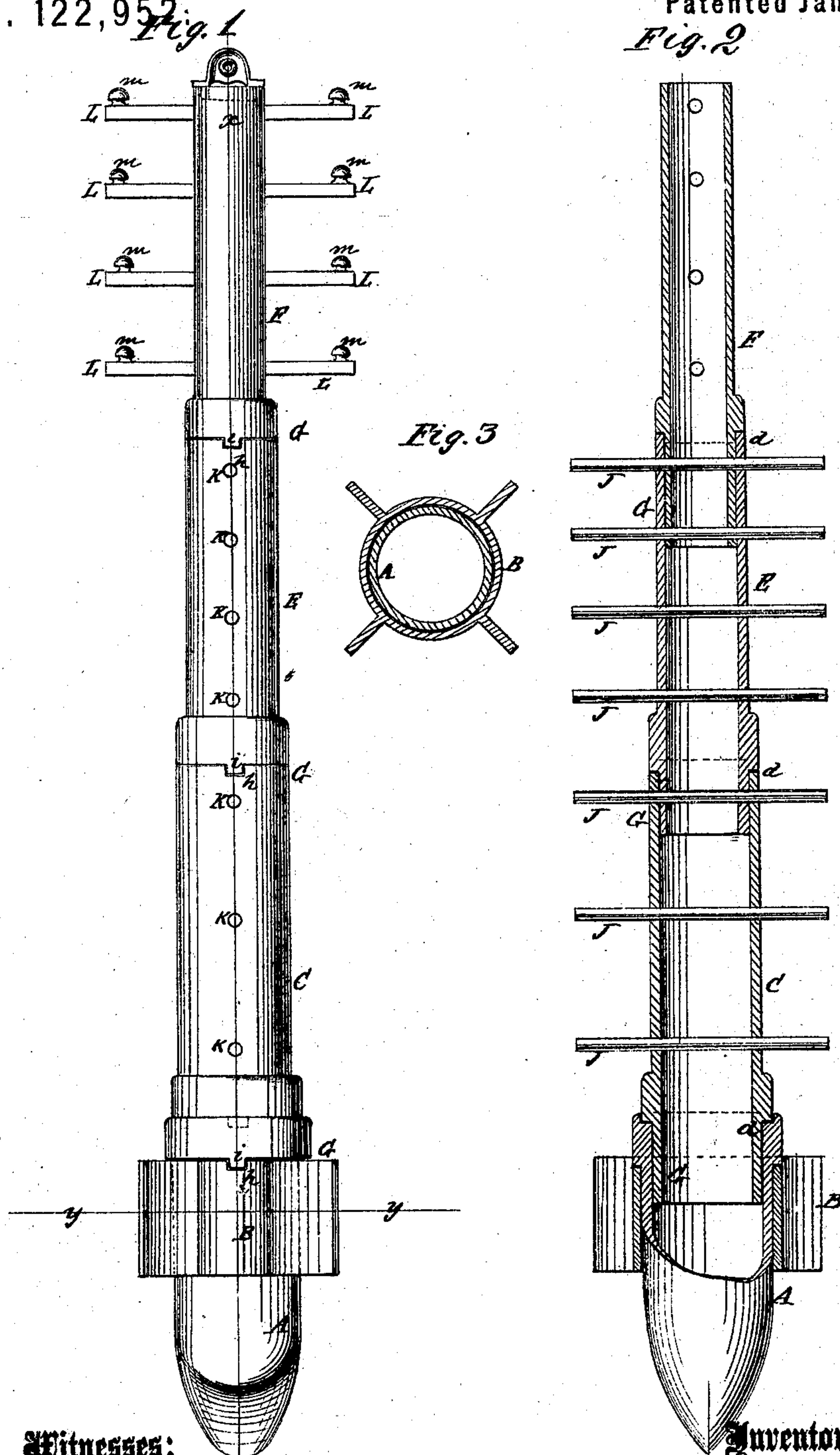
(21.)

R. D. McDONALD & E. M. CRANDAL.

Improvement in Iron Telegraph Poles.

No. 122,952

Patented Jan. 23, 1872.



Witnesses:

A. W. Humphreys  
Charles. Mc Ardle

Inventor:

R. D. McDonald  
PER E. M. Crandal  
Attorneys.



# UNITED STATES PATENT OFFICE.

RICHARD D. McDONALD, OF JERSEY CITY, NEW JERSEY, AND EDWARD M. CRANDAL, OF MARSHALLTOWN, IOWA, ASSIGNORS TO RICHARD D. McDONALD.

## IMPROVEMENT IN IRON TELEGRAPH-POLES.

Specification forming part of Letters Patent No. 122,952, dated January 23, 1872.

Specification describing a certain Improvement in Iron Telegraph-Poles, invented by RICHARD D. McDONALD, of Jersey city, in the county of Hudson and State of New Jersey, and EDWARD M. CRANDAL, of Marshalltown Station, in the county of Marshall and State of Iowa.

Our invention pertains to certain improvements in the construction of sectional iron telegraph-poles, which will be specifically indicated in the claim.

In the accompanying drawing, Figure 1 represents an exterior view of our improved telegraph-pole. Fig. 2 is a vertical section of Fig. 1, taken on the line *x x*. Fig. 3 is a cross-section of Fig. 1, taken on the line *y y*, showing the winged support or socket at the base of the pole.

Similar letters of reference indicate corresponding parts.

A is the lower section of the pole or the part which enters the ground, provided with a winged supporting-socket, B. The end of this section may be pointed or made sharp in any manner, so that it may be driven into the ground; or the end may be split, with the parts turned out in either direction, where a hole is made to receive the pole. This section is supported upon the socket B by shoulders, as seen in Fig. 2. In "planting" the pole this lower section is either driven into or placed in the ground, with the supporting-socket B around it, as represented, the top of which socket is designed to be at or near the surface of the ground. C represents the second section of the pole, which connects with the first section by a slip-joint limited by shoulders *d*, as seen. E is the third and F is the fourth tubular section of this pole, of diminishing diameter from the base section A up, and each connected by the slip-joint G, limited by the shoulders *d*. In the upper end of each of the lower sections is a recess, *h*, and on the other end is a lug, *i*, which fits into the recess *h*, as seen in Fig. 1. By this arrangement the sections are prevented

from turning, and are held in proper position. There may be bands around the ends of each section, which will come in contact at each end of the joint, if desired. These tubular sections are made of gas or steam pipe, and they must necessarily be banded to form the shoulders or enlargements seen in the drawing. Ordinarily the tubing used would be of sufficient strength without the additional bands first referred to. J represents rounds, which pass through the holes K in the pole for convenience in ascending and descending the pole. L represents the arms for supporting the wires, and M are the insulators thereon. In the top of the upper section F there may be an insulator, with provision for supporting a telegraph-wire, as represented in the drawing. The pole being a tube, a conducting-wire (one or more) may be carried down through it to the ground, and thus be secured from injury, transverse bars being arranged, with proper glass insulators, to guide the wire within the pole.

We do not limit or confine ourselves to the precise form and arrangement of any of the parts described, as they may be varied in many ways without departing from our invention.

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

1. The removable winged socket B, combined with the pointed and shouldered lower section or base of a sectional telegraph-pole, substantially as herein shown and described.

2. The telegraph-pole formed of tubular iron sections fitted together by means of slip-joints and recesses and lugs *h* and *i*, as herein shown and described.

RICHARD D. McDONALD.  
EDWARD M. CRANDAL.

Witnesses for McDONALD:

GEORGE W. MABEE,  
T. B. MOSHER.

Witnesses for CRANDAL:

O. A. ASHBY,  
J. A. MCARTHUR.