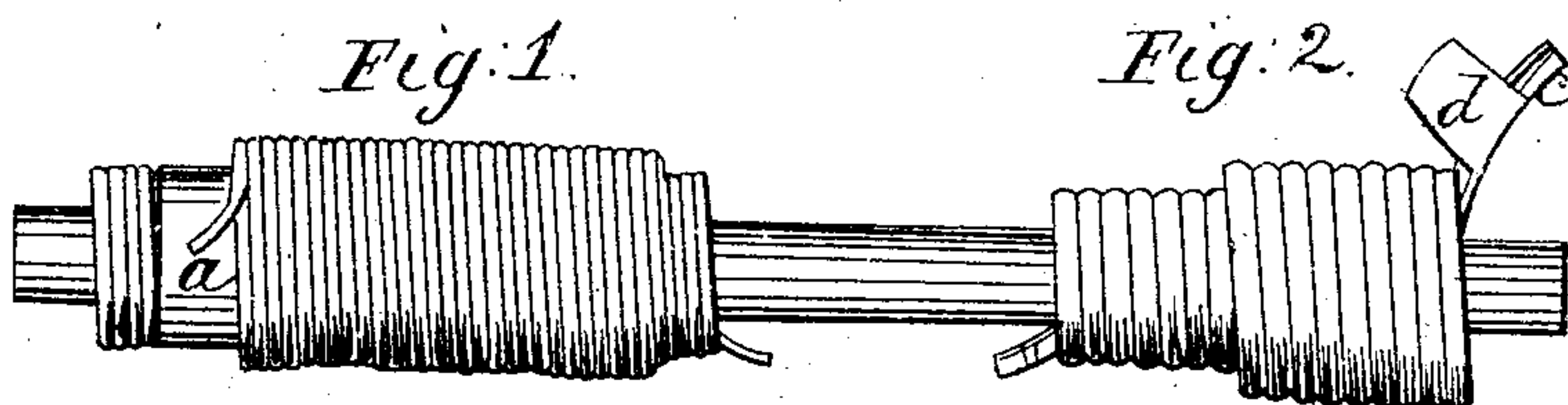


H. M. Paine

Electro Magnet

N^o 103,231.

Patented May 17, 1870.



Witnesses;

Lab Stamborough
John Davidson

Inventor;

Henry M. Paine

United States Patent Office.

HENRY M. PAINE, OF NEWARK, NEW JERSEY, ASSIGNOR FOR ONE-HALF
TO MAHLON S. FROST, OF NEW YORK CITY.

Letters Patent No. 103,231, dated May 17, 1870.

IMPROVEMENT IN THE CONSTRUCTION OF ELECTRO-MAGNETS.

The Schedule referred to in these Letters Patent and making part of the same

I, HENRY M. PAINE, of the city of Newark, in the State of New Jersey, have invented certain improved Methods of Increasing the Power of Electro-Magnets by combining metal foils with the current wires, of which the following is a specification.

The object of my invention is to neutralize the induced currents, and thus avail myself of the full dynamic value of the battery.

I have found, in the course of my electro-magnetic experiments, that the interposition of metal foils, *a*, fig. 1, between the coils, has a tendency to neutralize the antagonism of like currents to each other.

A still better result is obtained when the whole insulated wire is wound with the foil or other preparation of thin metal, as shown in fig. 2, *c* being the wire, and *d* the foil-coating.

I claim, broadly, the interposition of metal sheets between the layers of electro-magnetic coils or the clothing of the whole wire with the same, substantially as herein set forth.

HENRY M. PAINE.

Witnesses:

JAS. STANBROUGH,
JOHN DAVIDSON.