

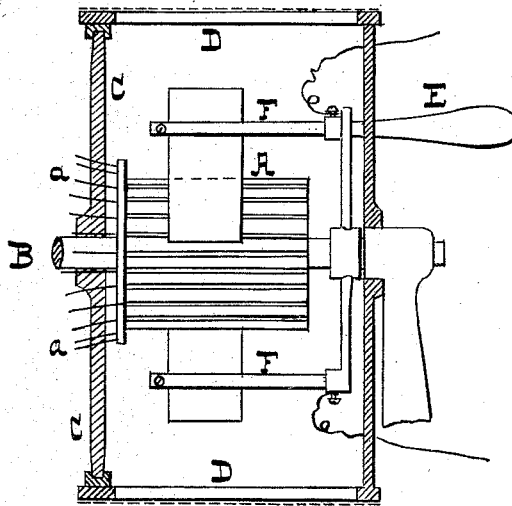
(No Model.)

S. H. TACY.

DYNAMO ELECTRIC MACHINE.

No. 343,930.

Patented June 15, 1886.



WITNESSES

M. C. McGill.
E. Hickelopper

INVENTOR

Samuel H. Tacy.
by G. H. J. Howard
Attorney

UNITED STATES PATENT OFFICE.

SAMUEL H. TACY, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JAMES
BOYCE, OF BALTIMORE, MARYLAND.

DYNAMO-ELECTRIC MACHINE.

SPECIFICATION forming part of Letters Patent No. 343,930, dated June 15, 1886.

Application filed January 14, 1885. Renewed November 19, 1885. Serial No. 183,286. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL HENRY TACY, of the city, county, and State of New York, have invented certain Improvements in Dynamo-Electrical Machines or Motors, of which the following is a specification.

The object of this invention is to render dynamo-electrical machines incapable of igniting combustible gases in mines; and to this end it consists, broadly, in enveloping the commutator and brushes of the machine where practically a continuous spark is produced with a flame-intercepting envelope. This envelope may consist of wire-gauze, and involve the Davy principle of protection, or be formed of some transparent air-tight material, such as glass or mica.

The drawing forming a part hereof is a top or plan view of the commutator and brushes and certain other parts of a dynamo-electrical machine or motor provided with a flame-intercepting envelope after the manner of my invention.

In the said drawing, A is the commutator, and B the armature-shaft, of the machine. The wires, which terminate in the commutator, are denoted by *a a*.

C is a disk of hard rubber or some other insulating material, fastened to the armature-

shaft B. This disk revolves in a cage, D, supported from some stationary part of the machine, and which, in view of the handle E, connected to the brush-carriers F, passing through it, is susceptible of a limited circumferential movement in adjusting the brushes. The periphery of the cage D is covered with either wire-gauze or glass; or, as glass is a material which is an insulator of electricity, the whole cage could be formed of it.

Two or more thicknesses of wire-gauze may be employed, if desired.

It is evident that electricity-generating machines and electric motors having their commutators and brushes provided with flame-intercepting envelopes, as described, can be safely employed in mines where fire-damp is likely to be present, or in mills or factories, which often contain a combustible atmosphere.

I claim as my invention—

In combination with the commutator and brushes of a dynamo-electrical machine or an electrical motor, a flame-intercepting envelope, substantially as and for the purposes specified.

SAMUEL H. TACY.

Witnesses:

PHILIP MAURO,
C. J. HEDRICK.