

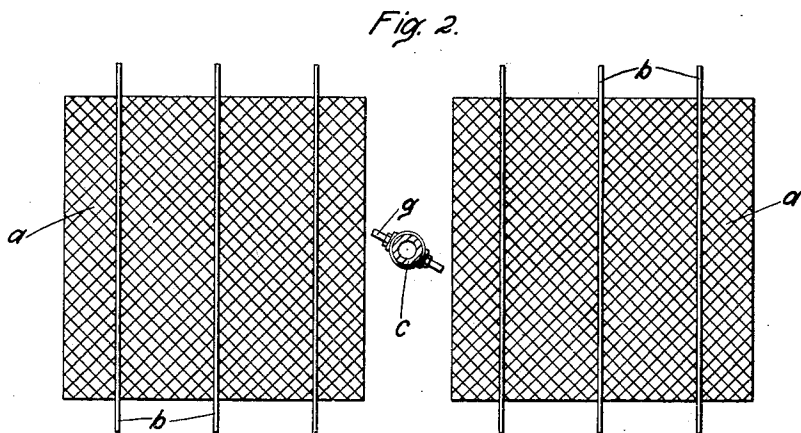
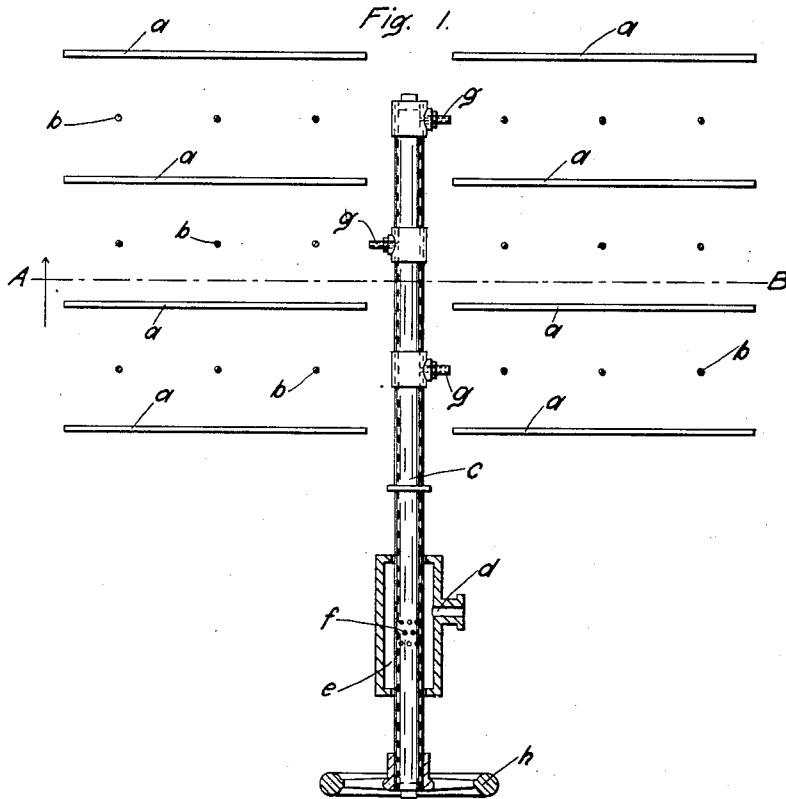
A. PETERSEN.

MEANS FOR CLEANING THE ELECTRODES IN ELECTRICAL FUME PRECIPITATORS.

APPLICATION FILED JULY 10, 1916.

1,399,441.

Patented Dec. 6, 1921.



Inventor:  
Alfred Petersen  
by Arthur P. Knight  
his Attorney.

# UNITED STATES PATENT OFFICE.

ALFRED PETERSEN, OF FRANKFORT-ON-THE-MAIN, GERMANY, ASSIGNOR TO INTERNATIONAL PRECIPITATION COMPANY, OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

MEANS FOR CLEANING THE ELECTRODES IN ELECTRICAL FUME-PRECIPITATORS.

1,399,441.

Specification of Letters Patent.

Patented Dec. 6, 1921.

Application filed July 10, 1916. Serial No. 108,297.

(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that I, Dr. ALFRED PETERSEN, diploma'd engineer, a citizen of the Empire of Germany, residing at Eppsteinerstrasse 6, Frankfort-on-the-Main, Germany, have invented certain new and useful Improvements in Means for Cleaning the Electrodes in Electrical Fume-Precipitators, of which the following is a specification.

The invention relates to a device for removing from the discharge and collector electrodes of electrical fume precipitating plants the dust deposited on the electrodes, such removal of the dust being effected by blowing it off by means of a current or blast of air or other gas.

The accompanying drawing illustrates such a device.

Fig. 1 showing a plan-view thereof, and

Fig. 2 a vertical section on line A—B.

*a* are the dust-collecting electrodes consisting for instance of a wire-netting, *b* are the discharge-electrodes for high tension currents, consisting for instance of fine wire. Between each two field-groups there is a blast-pipe *c*, to which compressed air or gas is fed by means of a tube *d* discharging into a chamber *e*. In this chamber *e* the blast pipe *c* is mounted so as to be slidable longitudinally and to be rotatable around its longitudinal axis, and the compressed air fed to it is admitted to the interior of blast-pipe *c* through the openings *f*. In front of the different fields the blast-pipe *c* is provided with reciprocally arranged nozzles, *g*. By displacing the blast-pipe *c* in axial direction it is possible to clean with one nozzle *g* both the discharge electrodes as well as the collector electrodes and so to free them from the adhering dust. By rotating the blast-pipe *c* on its axis through an angle of 180° by means of the hand-wheel *h* the nozzles *g* are directed upon the opposite field thereby enabling the operator to clean with a single nozzle the discharge and collector electrodes of the opposite field. By

rotating the pipe at an angle of less than 180° the whole electrode surface of each single field can be swept throughout its height.

What I claim is:

1. In combination with collecting electrodes of an electrical precipitator, a blast pipe provided with means for supplying gas thereto and mounted to rotate so as to direct gas on to different parts of said electrodes.

2. In combination with discharge and collecting electrodes of an electrical precipitator, gas supply means and air blast means in communication with said gas supply means and mounted to move rotatively and longitudinally to direct a gas blast at different parts of said electrodes.

3. In combination with electrode means in an electrical precipitator, gas blast means movably mounted to direct a gas blast to different parts of said electrode means to clean the same.

4. In combination with a flue in an electric precipitator a blast pipe, means for controlling the direction of the blast in the flue and means for supplying a blast medium.

5. In combination with a flue in an electric precipitator a blast pipe, means for moving the pipe in axial direction, means for rotating the pipe and means for supplying a blast medium.

6. In combination with an electric precipitator means for cleaning the same, comprising a blast pipe mounted for longitudinal and rotary movement, a chamber for admitting a blast medium and a connection between the said chamber and the blast pipe for admitting the medium to the latter during its motion.

In testimony whereof I have affixed my signature in presence of two witnesses.

ALFRED PETERSEN.

Witnesses:

HARRY E. CARLSON,  
CARL GRUND.