

UNITED STATES PATENT OFFICE.

AUGUST SCHÜSSLER AND CHARLES F. DIETERICH, OF NEW YORK, N. Y.

IMPROVEMENT IN PAPER DRY GAS-METERS.

Specification forming part of Letters Patent No. **144,868**, dated November 25, 1873; application filed November 10, 1873.

To all whom it may concern:

Be it known that we, AUGUST SCHÜSSLER and CHARLES F. DIETERICH, both of the city and county of New York, have invented certain Improvements in so-called Dry Meters for Measuring Gas, of which the following is a specification:

Said improvement consists in the substitution of a new material for the leather diaphragms, which are now used in dry meters.

It is well known that the leather which is used for this purpose, having been oiled before it is inserted into the dry meters, loses its oily substances, which are gradually dissolved and washed out by the liquid hydrocarbons, (condensation,) which allows the water and ammonia contained in the gas to enter the leather. The consequence is, that it shrinks and gradually becomes stiff, hence the meter loses its correctness and causes the light to flicker.

The substitute which we have invented for

this purpose is not liable to be physically or chemically affected by the gas or its condensed liquids.

We make these diaphragms for dry meters from parchment-paper, which is obtained by treating cotton or linen paper with equal parts of sulphuric acid and water for a few minutes, and then washing it thoroughly, saturating this product with equal parts of glycerine, acetate of potassa, and water. In this state the material is pressed into the desired form for diaphragms and inserted into the meters.

What we claim, and desire to secure by Letters Patent, is—

The application of paper, when treated substantially in the manner aforesaid, for dry meters, substantially for the purpose set forth.

CHAS. F. DIETERICH.

AUG. SCHÜSSLER.

Witnesses:

HENRY NAEF,

BENJ. A. MORAN.