

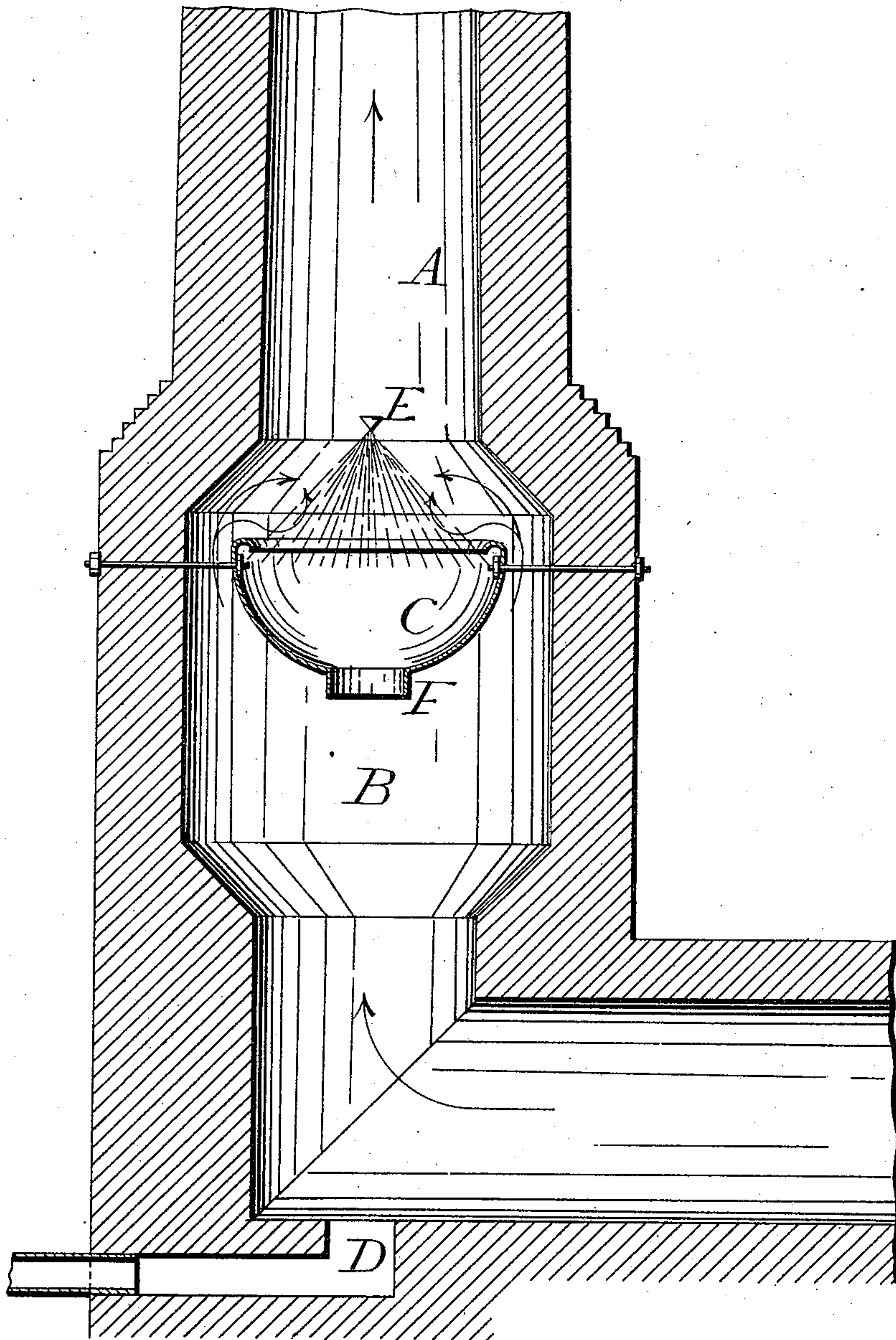
(No Model.)

E. E. DULIER.

APPARATUS FOR REMOVING IMPURITIES FROM SMOKE.

No. 576,838.

Patented Feb. 9, 1897.



Witnesses:
John A. Green
Robert Everett

Inventor,
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Atty.

UNITED STATES PATENT OFFICE.

EDWARD E. DULIER, OF MILDENHALL, ENGLAND.

APPARATUS FOR REMOVING IMPURITIES FROM SMOKE.

SPECIFICATION forming part of Letters Patent No. 576,838, dated February 9, 1897.

Application filed July 7, 1896. Serial No. 598,290. (No model.)

To all whom it may concern:

Be it known that I, EDWARD EUGENE DULIER, a citizen of Belgium, residing at Manor House, Mildenhall, in the county of Suffolk, England, have invented a certain new and useful Apparatus for Removing Impurities from Smoke, of which the following is a specification.

My invention relates to apparatus which can be arranged in a chimney or smoke-flue for the purpose of removing impurities from smoke, so that the combustion-gases may issue from the chimney or flue colorless and free from sulfurous vapors, or nearly so.

The accompanying drawing is a section of the lower part of a chimney with smoke-purifying apparatus according to my invention arranged therein.

I expand at B part of the chimney A, and in the expanded part I fix a cup C. Above the cup C, I provide a nozzle E, of any known kind, arranged to break up and distribute into spray a current of water passing through it. At the bottom of the flue I provide a drain D.

The cup C has at the bottom an opening surrounded by a lip F. The nozzle E being supplied with water from any convenient source, the smoke ascending the chimney, as indicated by the arrows, turns over the edge of the cup and mingles with the water-spray, which has the effect of beating down the black particles and sulfurous vapors. While the impurities are thus carried down by the water

with it through the open bottom of the cup and are carried away by the drain D, the combustion-gases, purified, or nearly so, ascend the chimney.

Having thus described the nature of this invention and the best means I know of carrying it into practical effect, I claim—

1. The combination with a flue or chimney A having an enlarged chamber B, of a cup C having a discharge-orifice F in its bottom, said cup being arranged in said chamber and having an unobstructed passage for the smoke surrounding it, and a spraying-nozzle arranged in the flue or chimney above the cup, substantially as described.

2. The combination with a flue or chimney A having an enlarged chamber B, of a cup C arranged in said chamber and having a flanged discharge-orifice F in its bottom, there being an unobstructed passage for the smoke surrounding said cup, a spraying-nozzle arranged in the flue or chimney above the cup, and a drain arranged in the flue or chimney beneath the cup, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 22d day of June, A. D. 1896.

EDWARD E. DULIER.

Witnesses:

A. E. KING,
GEO. GARNHAM.