

UNITED STATES PATENT OFFICE.

CHARLES LOUIS FLEISCHMANN, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN REVIVIFYING CHARCOAL USED IN RECTIFYING SPIRITS.

Specification forming part of Letters Patent No. **136,147**, dated February 25, 1873.

To all whom it may concern:

Be it known that I, CHARLES LOUIS FLEISCHMANN, of the city of Washington, in the District of Columbia, have invented an Improved Process of Revivifying Coal, of which the following is a specification:

The nature of the invention consists in revivifying coal charged with fusel-oil or other substances with diluted acetic acid or vinegar.

The acetic acid has the property of changing alcohol into vinegar; and as fusel-oils are alcohols with a larger amount of carbon than alcohol, they are subject to acidification, and in that state they are readily taken up by the water.

Many attempts have been made to revivify coal with sulphuric acid, sulphurous acid, muriatic acid, chlorides, and alkalies; but these substances have not the property of assimilating the fusel-oil or other organic substances; on the contrary, they decompose it into insoluble substances, which remain in the coal and give the whisky or other material a bad taste.

To revivify coal soaked with fusel-oil I charge

the coal with vinegar; in two or more days, when the acidification of the fusel-oil has taken place, I then force the vinegar from the coal by means of water. When this operation is carefully performed the greater part of the vinegar is again obtained and serves for other revivifying processes. The vinegar, not being a strong acid, does not injure the coal as mineral acid would; and, consequently, in my process of revivification, the coal can be used a long time; but when the coal has been revivified three or four times a small addition of mineral acids is required to remove from the coal the coating of organic matter.

What I claim as my invention is—

The process herein described for revivifying coal by treating it with diluted acetic acid with additions of mineral acids, for the purpose substantially as described.

CH. L. FLEISCHMANN.

Witnesses:

A. B. STOUGHTON,
HENRY LEWIS.