# UNITED STATES PATENT OFFICE.

CAMILLE A. FAURE AND GEORGE TRENCH, OF FAVERSHAM, ASSIGNORS TO THE COTTON POWDER COMPANY, (LIMITED,) OF WESTMINSTER, ENGLAND.

## DETONATOR.

SPECIFICATION forming part of Letters Patent No. 233,406, dated October 19, 1880.

Application filed May 11, 1880. (No specimens.) Patented in Great Britain January 15, 1877.

*To all whom it may concern:*

Be it known that we, CAMILLE ALPHONSE FAURE and GEORGE TRENCH, both of Faversham, in the county of Kent, England, have invented new and useful Improvements in Detonators, which improvements are fully set forth in the following specification.

Hitherto the composition of detonating-tubes or detonators has been either fulminate of mercury alone or mixed with chlorate of potash or with picrate of lead and chlorate of potash, or some such compositions as belong to the gunpowder class properly.

Now we make our detonators by mixing together the fulminate of mercury, while wet, with very finely-ground gun-cotton and some chlorate of potash, about in the proportion, by weight, of six parts of fulminate and one part each of gun-cutton and chlorate of potash.

The water in which the fulminate of mercury is usually stored is first drained off and replaced by displacement by ether or alcohol, or a mixture of the two. While the fulminate of mercury is still moist with ether the gun-cotton and chlorate of potash are added, and the mixture well rubbed together. This pasty compound is next distributed in detonator caps, tubes, or shells by the aid of suitable apparatus, each detonator having the paste pressed firmly in it. The pressure should be gradually increased until the requisite force is exerted to properly compress the compound into the detonator.

We claim as of our own invention—

1. The detonating compound formed of fulminate of mercury, gun cotton, and chlorate of potash, substantially as and about in the proportions hereinbefore set forth.

2. The before-described detonator, consisting of a cap, tube, or shell supplied with the compound formed of fulminate of mercury about six parts, and gun-cotton and chlorate of potash about one part each, substantially as hereinbefore set forth.

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