UNITED STATES PATENT OFFICE

GEORG CARL JULIUS SCHNEIDER, OF ERIE, PENNSYLVANIA.

IMPROVEMENT IN COMPOSITIONS FOR SAFETY BLAZING FUSEES, &c.

Specification forming part of Letters Patent No. 153,181, dated July 21, 1874; application filed April 9, 1874.

To all whom it may concern:

Be it known that I, Georg C. J. Schneider, of the city and county of Erie and State of Pennsylvania, have invented a new Composition for Safety Blazing Fusees, of which the following is a full, clear, and exact description:

The nature of my invention consists in using for the ignition of fusees a compound composed of the ingredients hereinafter named, which renders the fusee, when lighted, inextinguishable in wind or rain, and will not poison any one should the composition by accident or through carelessness be eaten.

The construction of my compound is as follows: I take two (2) parts of glue, ten (10) parts of starch, and seventy-two (72) parts of water and mix them when warmed. To this mixture I add twenty (20) parts of powdered glass, forty-eight (48) parts of chlorate of potash, twenty (20) parts of pumice-stone, eight (8) parts of sulphuret of golden antimony, twelve (12) parts of saltpeter, four (4) parts of cascarilla-bark, and two (2) parts of lamp-black. In this mixture the end of the splint or stick of the fusee is dipped but once, and after being properly dried is ready for use, as no other striking preparation is necessary to be added to the point of the fusee to enable it to be ignited.

The fusce thus prepared can only be ignited by friction upon a surface which is prepared

for use by employing a chemical compound composed of the following ingredients, viz: Starch, amorphous phosphorus, sulphuret of black antimony, and water.

As this composition is the subject-matter of another application for a patent, the proportion of the ingredients composing the same are not given here.

I desire it understood that there is nothing arbitrary about the proportions of the ingredients herein named, as they may be varied without in any manner affecting my invention.

I am away that safety-matches have been made—that is, matches which can be ignited only by a specially-prepared surface. The object of my invention is to produce a safety-fusee which cannot be easily extinguished.

I do not limit myself to the exact materials named, as a chemist can readily suggest equivalent substances.

What I claim as new, and desire to secure by Letters Patent of the United States, is— A compound composed of the ingredients

herein named, for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORG CARL JULIUS SCHNEIDER. Witnesses:

J. W. WETMORE, W. R. DAVENPORT.