## UNITED STATES PATENT OFFICE

HENRY B. MALONE, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN FIRE-LIGHTERS.

Specification forming part of Letters Patent No. 220,484, dated October 14, 1879; application filed August 11, 1879.

To all whom it may concern:

Be it known that I, Henry B. Malone, of the city of Chicago, in the county of Cook and State of Illinois, have invented a certain compound, called "Chicago Fire-Lighter," to be used instead of wood or other material in the kindling or lighting of fires, of which the following is a specification.

The nature of my invention consists in mixing the various materials and chemicals, and in the proportions hereinafter mentioned.

To prepare the Chicago fire-lighter, take of rosin, in a crude state, one hundred pounds; maple, hickory, or other hard-wood or softwood sawdust, (hard-wood sawdust being the best,) in a dry state, twenty-five pounds; redsanders or other coloring-matter of like quality, one pound; granulated nitrate of potash, three pounds; sugar, dark or otherwise, three pounds; granulated brimstone, three pounds; petroleum, four pounds. This will make of the compound one hundred and thirtyeight pounds, or thereabout, the mixture described to be made as follows: First, melt the rosin, with the sugar, petroleum, and red-sanders, or other coloring-matter, in a kettle or other vessel by themselves, and bring the same to a boiling heat; then, second, mix in another kettle or vessel the potash, brimstone, and sawdust. After being thoroughly mixed, turn same into the kettle or vessel containing the liquid compound. This mixture should then, while in a warm state, be thoroughly stirred, and also while warm be placed or turned into molds made of thin pieces of board or other material. The size of the mold I would recom-

mend to be about six by ten inches square and one and three-fourths of an inch in thickness. The composition, after being turned into the molds, is then by the use of a trowel or knife cut into blocks two inches square, which must be done while the composition is warm. I make the molds of the size designated for the reason that they are more readily handled in that size, and can be more readily placed on the market; and I make the cake of the size designated for the reason that it is sufficiently large for the kindling of an ordinary fire.

The composition, when cool, is ready for use, and can be lighted with a friction-match. The rosin and sawdust are, among other reasons, used to hold the chemicals together, and to render the compound made as described non-explosive. The sugar is used not only to more firmly adhere the compound as combustible matter, but also as a disinfectant.

This Chicago fire-lighter, when prepared and made as designated, will not decompose by age, for the reason that none of the component parts, after manufacture in the manner described, are subject to decomposition, and the same, by reason of the addition of the rosin and sawdust, is rendered non-explosive, and is not affected by dampness.

I claim as my invention—

A compound consisting of the materials above set forth, when mixed and made substantially in the proportions and for the purposes set forth.

Witnesses: HENRY B. MALONE. D. W. C. CASTLE.

W. E. LEFFINGWELL.