

# UNITED STATES PATENT OFFICE.

FRANK L. STEWART, OF DOVER, MAINE, ASSIGNOR TO HIMSELF, AND  
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## FIRE-KINDLER.

SPECIFICATION forming part of Letters Patent No. 342,814, dated June 1, 1886.

Application filed June 29, 1885. Serial No. 170,181. (Specimens.)

*To all whom it may concern:*

Be it known that I, FRANK L. STEWART, of Dover, in the county of Piscataquis, State of Maine, have invented a certain new and useful Improvement in Fire-Kindlers, of which the following is a description, sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same.

My invention relates to that class of fire-kindlers which are designed for domestic use in kindling fires for stoves, ranges, furnaces, &c.; and it consists in a novel combination of ingredients, as hereinafter more fully set forth and claimed, by which a more effective and otherwise desirable article of this character is produced than is now in ordinary use.

The nature of my improvement will be readily understood by all conversant with such matters from the following explanation.

Formula: Take one gallon of common pine-tar, warm it until quite thin, and mix it thoroughly with one-half bushel of fine kiln-dried sawdust. Next take one-half bushel of sifted wood-ashes, and mix them thoroughly with six quarts of kerosene-oil, after which put

both of said mixtures into one vessel and stir them until they are thoroughly incorporated, at the same time adding four quarts of fine dry gravel.

When the ingredients are mixed as described, they form a powder, which should be kept in a closely-covered vessel for ready use, from half an ounce to one ounce, or, say, two tablespoonfuls, of the powder being sufficient to kindle an ordinary stove-fire. The gravel operates to render the compound porous and make it burn freely.

The proportions of the ingredients may be varied, and some of them substituted by others of a like nature, without departing from the spirit of my invention.

Having thus explained my invention, what I claim is—

A fire-kindler consisting of a powder comprising a loose mixture of pine-tar, sawdust, wood-ashes, gravel, and kerosene-oil, in the proportions substantially as herein set forth.

FRANK L. STEWART.

Witnesses:

C. A. SHAW,  
L. J. WHITE.