UNITED STATES PATENT OFFICE.

STEPHEN BLAISDELL, OF BRUNSWICK, MAINE.

IMPROVEMENT IN IGNITIBLE COMPOUNDS FOR FRICTION-MATCHES.

Specification forming part of Letters Patent No. **2,494**, dated March 18, 1842.

To all whom it may concern:

Be it known that I, STEPHEN BLAISDELL, of Brunswick, in the county of Cumberland and State of Maine, have invented a new and useful Improvement in the Manufacture of Matches for the Instantaneous Production of Light by Friction, which is described as follows:

Prepare the pieces of wood for the matches by sawing or otherwise, and dip them in sulphur in the usual manner. Then prepare a composition in the following manner: Take one-fourth of a pound of glue or other viscid substance and dissolve it in boiling water. To this add three-fourths of a pound of sulphur or brimstone and simmer them together over a slow fire, stirring the composition until thoroughly mixed. Then remove it from the fire, and when at a temperature of about 100° or 120° Fahrenheit add three ounces of phosphorus, and incorporate this thoroughly with the other ingredients by stirring. Let the composition cool to about 100° of heat, which will be about the right degree for dipping the matches, at which temperature it should be kept by placing the vessel in hot water to prevent ignition during the process of dipping. Then dip the matches in the aforesaid composition and lay them aside to dry. When thoroughly dry cover the composition on the matches with a coat of copal or other varnish to exclude the air and prevent accidental ignition. After the varnish is dry inclose each block of matches in a paper and pack them in packages of about thirty-six blocks each.

I am aware that sulphur and phosphorus have been united in the composition of the fire-bottle formerly in use, but were not combined by means of a glutinous substance, so as to allow of the compound being adapted to the manufacture of friction-matches without the danger of ignition, as in my invention, to which purpose the mixture of sulphur and phosphorus in the fire-bottle is not applicable, as the match introduced into this compound took fire without the use of friction or being withdrawn from the bottle. An alkali in any required proportion may be used to promote a more perfect dissolution of the sulphur; therefore

What I claim as my invention, and desire to secure by Letters Patent, is—

The manufacture of friction-matches by dipping the matches into a compound of sulphur and phosphorus formed into a paste or fluid by means of glue or any other glutinous or viscid substance, as herein set forth.

STEPHEN BLAISDELL.

Witnesses:

WM. P. ELLIOT,

EDM. MAHER.