

UNITED STATES PATENT OFFICE.

FREDERICK BOMMARIUS, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO THE
CARROLL FLEXIBLE MATCH COMPANY, OF MISSOURI.

PREPARING FLEXIBLE MATCHES.

SPECIFICATION forming part of Letters Patent No. 407,717, dated July 23, 1889.

Application filed November 12, 1888. Serial No. 290,617. (No specimens.)

To all whom it may concern:

Be it known that I, FREDERICK BOMMARIUS, a citizen of the United States, residing at the city of New Orleans, State of Louisiana, have invented certain new and useful Improvements in the Method of Manufacturing Lighting-Matches, and in apparatus therefor, for which I have made a separate application for a patent of even date herewith, Serial No. 290,616, filed November 12, 1888; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to produce a flexible lighting-match, or series thereof, which may be packed in a small compass for facility of carriage and use.

To carry my invention into effect I use a band of paper of any desired width, which is first saturated with fusel-oil, shellac, and rosin or other suitable mixture for imparting an inflammable nature thereto. The paper band is then dried by exposure to the atmosphere and then cut longitudinally into strands or strips of suitable width and of varying lengths, according to the desired number of matches to be made along each strip. On one side of each strip, at suitable intervals for its entire length, is then deposited transversely, in a more or less liquid form, striking surfaces or portions of igniting composition, such as phosphorus, glue, nitrate of potash, and calcined magnesia, which adhere to the paper and are dried by exposure to the atmosphere. The paper strip thus prepared is finally coiled upon itself in a similar manner to a watch-spring and forms a series of flexible matches

ready for use, each portion of the strip between the successive deposits of igniting composition composing a match.

I claim—

1. The method herein described of manufacturing matches, which consists in first passing a web or band of flexible material through a bath of inflammable composition whereby the web is rendered inflammable; second, drying the web so that the web may be cut without tearing; third, slitting the web longitudinally into a series of strands, and, fourth, depositing an igniting composition on the separated strands at intervals, substantially as and for the purposes specified.

2. The method herein described for making flexible matches, which consists in the following successive steps, viz: first, immersing a web or band of flexible material, such as paper, in a bath of inflammable material, such as a solution of shellac and rosin in fusel-oil; second, exposing said web to the atmosphere to evaporate the solvent and dry the web so that it can be cut; third, slitting said dried web longitudinally into a series of narrow strips or strands, and, finally, depositing an igniting composition at intervals on each of the separate strands of the series, substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 2d day of November, 1888.

FREDERICK BOMMARIUS.

Witnesses:

JOHN MALLIN,
H. L. LOOMIS, Jr.