

# UNITED STATES PATENT OFFICE.

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## PYROXYLIN COMPOUND.

SPECIFICATION forming part of Letters Patent No. 610,566, dated September 13, 1898.

Application filed May 7, 1898. Serial No. 679,998. (No specimens.)

*To all whom it may concern:*

Be it known that I, JOHN H. STEVENS, of the city of Newark, county of Essex, and State of New Jersey, have invented certain  
5 new and useful Improvements in Pyroxylin Compounds, of which the following is a specification.

Pyroxylin compounds are now well known. They consist either of nitrocellulose or its combination with solvents or other materials.

In order to prevent or minimize the dangerous acid decomposition to which these compounds are liable, it has been customary to combine with them some antacid substance.  
15 The various properties and conditions of treatment have made it desirable to have a large number of these antacid substances to select from.

The present invention is mainly of benefit  
20 to compounds used for coating solutions and for imitation of leather, also for black effects, such as pyroxylin imitation of jet. The invention is applicable as well to the manufacture of smokeless powder from pyroxylin.

25 In operating with my invention I introduce into the pyroxylin or its compounds from one to two per cent. of acetate of manganese. This can be done by dissolving the acetate of manganese in water or in wood-spirit, according to the nature of the compound to be acted upon—that is, whether it is the pure nitro-cellulose or a solution in spirituous solvents. These proportions need not be strictly  
30 adhered to, as more or less can be used, with

the effect of making the compound more or less stable. The acetate of manganese belongs to the class of substances known as the “manganese salts” of the volatile monatomic fatty acids. These salts are all equivalents for this purpose. The entire series of salts  
40 consists of formate of manganese, propionate of manganese, acetate of manganese, butyrate of manganese, and valerate of manganese. The acetate of manganese is especially valuable in making transparent effects, because  
45 when used in wood-spirit it forms so complete a combination, especially in the proportions specified, that the solutions or compounds are transparent.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A new composition of matter consisting of pyroxylin and a manganese salt of an acid of the volatile monatomic series of fatty acids,  
55 substantially as described.

2. A new composition of matter consisting of pyroxylin, a solvent of the same, and a manganese salt of an acid of the volatile monatomic series of fatty acids, substantially as  
60 described.

3. A new composition of matter containing pyroxylin and acetate of manganese.

JOHN H. STEVENS.

Witnesses:

WALTER P. LINDSLEY,  
S. M. COOLEY.