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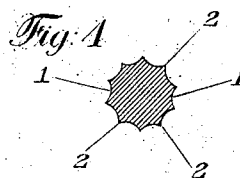
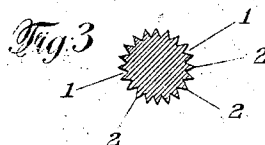
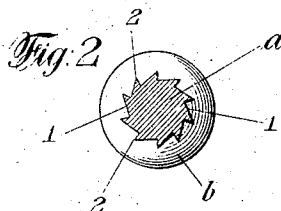
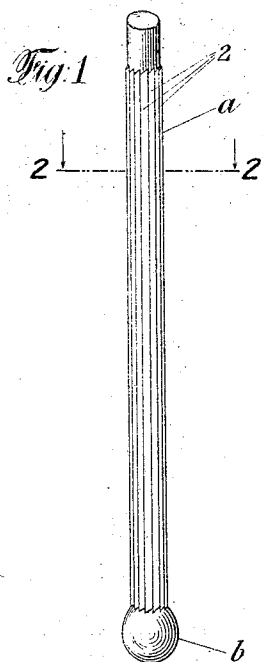
J. R. NOLAN.

MATCH.

APPLICATION FILED MAR. 6, 1912.

1,042,464.

Patented Oct. 29, 1912.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN R. NOLAN, OF NEW YORK, N. Y., ASSIGNOR TO THE DIAMOND MATCH COMPANY,  
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## MATCH.

1,042,464.

Specification of Letters Patent.

Patented Oct. 29, 1912.

Application filed March 8, 1912. Serial No. 681,944.

To all whom it may concern:

Be it known that I, JOHN R. NOLAN, a citizen of the United States, and resident of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Matches, of which the following is a specification.

This invention relates to friction matches; its object being to provide a match of simple and efficient construction whereby the initial igniting and subsequent burning of the stick is facilitated, and whereby the intimate connection of the head composition with the stick is insured.

To this end the invention, as generally stated, comprises a match having its stick provided with a substantially continuous series of adjacent longitudinal grooves which present a multiplicity of thin lateral edges around the stick, and also afford a locking medium for the igniting head composition, as will be hereinafter particularly described and claimed.

In the drawings—Figure 1 is a perspective view of a match, enlarged, embodying a good form of my invention. Fig. 2 is a cross-section through the stick, as on the line 2—2 of Fig. 1. Figs. 3 and 4 are cross-sections of slightly modified forms of sticks.

The match stick *a* is herein illustrated as round in cross-section, but of course the stick may be of octagonal or other cross-sectional form. Instead of being smooth, or practically so, as heretofore, the peripheral surface of the stick is provided with a substantially continuous series of longitudinal channels or grooves 1, of appropriate form, arranged in close relation to each other to present a multiplicity of longitudinal edges or fins, 2, extending preferably throughout the length of the stick, or nearly so. By varying the cross-sectional form of the grooves the shape of the fins may be altered. For example, as illustrated in Figs. 1 and 2, the grooves are shaped similarly to the inclined interdental spaces of a circular saw; and as indicated in Figs. 3 and 4 the grooves are of V-form and U-form respectively. In each case a multiplicity of thin longitudinal edges 2 is pro-

duced around and throughout the length of the stick or substantially so.

The igniting composition is applied in a semiliquid or plastic state to one end of the stick to provide, when hard, the usual striking head *b*. Such composition enters the grooves, and the head thus becomes embedded in and firmly interlocked with the stick, as indicated in Fig. 2. By this construction it will be seen that not only is the head practically an integral part of the stick, but when the head is struck in the usual manner the resulting flame at once attacks the multiplicity of thin lateral edges which thereupon communicate the flame effectively to the body of the splint; and further that the presence of these thin edges around the stick and in the direction of its length insures the free burning of the stick after its initial ignition. Moreover, the provision of the thin burning edges with their attendant aid to easy ignition permits the use of a relatively small quantity of igniting composition for the head of the match.

I claim—

1. As a new article of manufacture, a friction match having its stick provided with a substantially continuous series of adjacent peripheral grooves which present a multiplicity of thin burning edges extending lengthwise of the stick.

2. As a new article of manufacture, a friction match having its stick provided throughout its periphery, from end to end, with a substantially continuous series of adjacent grooves which present a multiplicity of thin burning edges extending lengthwise of the stick.

3. As a new article of manufacture, a friction match having its stick provided with a substantially continuous series of adjacent peripheral grooves which present a multiplicity of thin burning edges extending lengthwise of the stick, and having its head composition firmly embedded in one end of said grooves.

4. As a new article of manufacture, a friction match having a substantially continuous series of longitudinal grooves ar-

ranged in close relation to each other and shaped similarly to the inclined interdental spaces of a circular saw as shown and described, so as to present a multiplicity of burning edges, said match having its igniting head composition firmly embedded in one end of said grooves.

Signed at New York, in the county and State of New York this fourth day of March, A. D. 1912.

JOHN R. NOLAN.

Witnesses:

M. B. GOEWY,  
JOHN F. JACOBS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."