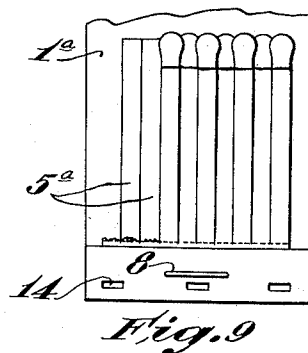
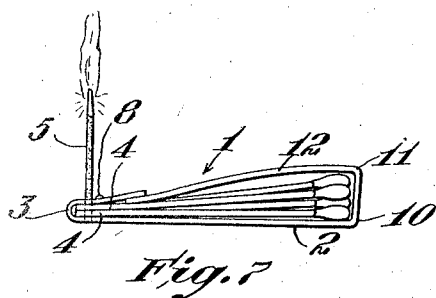
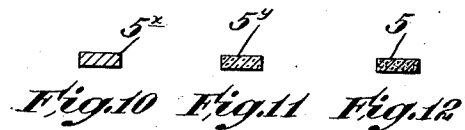
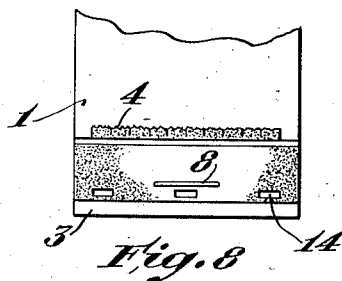
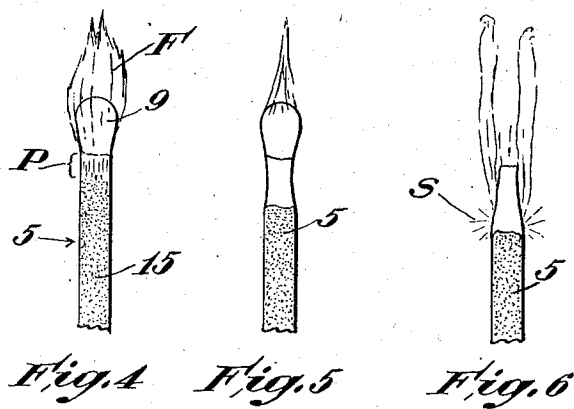
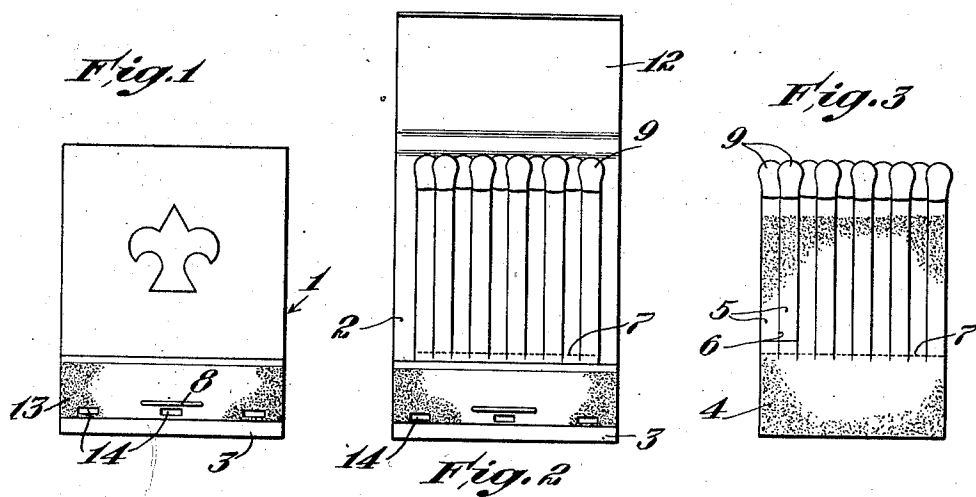


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D. TOPJIAN
ODOR DISPENSING DEVICE
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Inventor
Daniel Topjian
by *Roberts Cushman & Woodberry*
Attys.

UNITED STATES PATENT OFFICE

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ODOR DISPENSING DEVICE

Daniel Topjian, Watertown, Mass.

Application April 2, 1937, Serial No. 134,463

1 Claim. (Cl. 21—111)

This invention pertains to odor dispensing means, and although of more general application and value, as will hereinafter be made manifest, appears to be most widely useful when embodied in a match packet.

While it is true that the heads of modern safety matches do not contain so much sulphur, white phosphorus or other extremely pungent chemical substances as did the matches of the older types—even the modern match, when burning, emits fumes which are acrid and unpleasant. Doubtless by far the greater part of the matches produced are used by smokers, and a large percentage of these so used are lighted within a restricted or confined space, such as a living room, office, restaurant, railway-car, or the like, from which there is little opportunity for the fumes to escape.

Not only does the excessive consumption of matches by many smokers load the atmosphere with unpleasant fumes, but the tobacco smoke itself, especially after it becomes stagnant and stale, has an odor which is disagreeable even to many smokers, and which, perhaps by reason of some oily constituent in the smoke, exhibits a marked tendency to cling to the hair and clothing for a long period of time. This is particularly objectionable to women, perhaps because they are more fastidious by nature than men, and who normally prefer the delicate fragrance of perfume to the crude and pungent smell of the smoking room.

It has heretofore been proposed to substitute a more pleasing odor for that which usually fills the room where many persons are smoking, by burning incense, joss sticks, or the like, and while this may improve conditions when it is resorted to, its practice demands at least some forethought on the part of the would-be user in providing a stock of incense or joss sticks, neither of which can be regarded as an article of common, everyday use in the average American household, and when, by forethought, such material be on hand, its use is more than likely to be sporadic and only resorted to when conditions become extremely bad.

The present invention has for its principal object the provision of odor dispensing means so intimately and inseparably associated with the use of matches in smoking that in most cases the ordinary use of a match will result in the evolution of an odor of pleasing character, which will tend to obscure the smell of the fumes emitted by the burning match head and the burning tobacco.

A further object of the invention is to provide

a match packet of the general type most commonly used by smokers but containing matches which, while furnished with striking heads of usual character, emit a pleasing perfume-like odor when the match stick is permitted to burn below the head.

A further object is to provide a perfume exhaling match having a stick of such character that it will smoulder without flame while continuing to give off a pleasing incense-like fragrance for a substantial period of time and until the stick is substantially consumed.

A further object is to provide a match packet having means for holding one or more matches or match sticks in operative, substantially upright position while the burning stick is functioning as incense material.

A further object is to provide a match packet which, after the matches have been removed therefrom, continues to emit a faintly fragrant odor, so that it may be used as a sachet, either in the pocket or purse of the user, for example, to overcome the fumes of stale tobacco or the like, or which may be placed in a drawer, clothes closet or chest for the same purpose as the more conventional sachet packets.

Other and further objects and advantages of the invention will be made manifest in the following more detailed description and by reference to the accompanying drawing, in which:

Fig. 1 is a plan view showing a match packet of a more or less conventional type but embodying the present invention;

Fig. 2 is a plan view of the same match packet opened to expose the matches;

Fig. 3 is a plan view of a card of matches before assembly with the other parts of the packet;

Fig. 4 is a fragmentary elevation, to larger scale, showing the upper part of one of the matches removed from the packet and as it appears when it has first been lighted;

Fig. 5 is a view similar to Fig. 4 but showing the match as it appears after the flame has died out from the head of the match;

Fig. 6 is a view similar to Fig. 4 but showing the match after the head has dropped off and as it appears when functioning as an odor dispensing device;

Fig. 7 is an edge elevation of the match packet closed and functioning as a holder for one of the match sticks when the latter is burning as an odor or incense dispensing element;

Fig. 8 is a fragmentary plan view showing the packet after the matches have been removed and as it appears when employed as a sachet;

Fig. 9 is a fragmentary plan view illustrating a modified construction in which the odor dispensing elements are not furnished with striking heads; and

Figs. 10, 11 and 12 are transverse cross sections illustrating various stages in the production of the improved odor dispensing device.

Referring to the drawing, the numeral 1 designates the match packet as a whole, such packet, as is customary, comprising a strip 2 of cardboard or other suitable flexible material which is sharply bent near one end at 3 to provide a U-shaped fold designed to receive the butt portions of one or more "cards" of matches. These cards of matches may be made of any suitable material but are ordinarily made from paper stock having the requisite stiffness, each card comprising the butt portion 4 and the parallel match stick portions 5 separated by slits 6. In thus referring to the parts 5 as "match sticks," it is not thereby implied that they are of wood, although it is contemplated that under some circumstances they may be wood, but merely as designating their stiff, stick-like character.

The match sticks 5 may, as usual, be separated from the butt portion 4 by tearing them or breaking them off, such tearing or breaking action being facilitated by the provision of a line of weakness 7, such, for example, as a series of indentations, spaced incisions, or the like. One or more of these cards of matches is disposed within its butt portion 4 within the U-shaped fold formed by bending the part 2 at the point 3, and these butt portions are permanently united to the holder, for example, by means of staples 8. Before mounting the cards of matches in the holder, they are provided with heads 9 of usual character capable of igniting by friction when struck upon a suitable surface, and these heads are protected and the matches are concealed in the completed package, when the latter is closed, by a flap portion 12 formed by bending the cardboard strip at the points 10 and 11, respectively. The free edge of this flap 12 may be pushed down beneath the free edge of the lower fold of the holder, thus to keep the packet closed. The front face of the fold may, as usual, be furnished with suitable abrasive material 13 compounded with a chemical substance to permit lighting the matches by friction against such abrasive. In all of the above respects the packet of the present invention resembles that now almost universally used by smokers.

In accordance with the present invention, it is preferred to provide the lower portion of the packet with one or more socket openings 14, preferably more or less rectangular, and of dimensions corresponding to the transverse section of one of the match sticks. These sockets may be produced by a punching operation, and are designed to hold the match sticks while burning, as hereinafter more fully described.

It is customary, before applying the striking heads to the matches to dip the match sticks in a waxy substance, such as paraffin, to assure the proper lighting of the match stick before the inflammable material of the head has been consumed. In accordance with the present invention it is preferred to limit this waxy material to a relatively short zone P just below the head, and from this point down, and preferably including the butt 4, the entire card of matches is impregnated with a perfuming material of a type suitable for the accomplishment of the objects of the present invention.

In Fig. 10 the original untreated match stick is indicated at 5x, such match stick being, as above suggested, of a paper stock, for example, cardboard or the like. The next step in the process of preparing the match stick in accordance with the present invention is to impregnate it, as indicated in Fig. 11, with some chemical substance, for instance, potassium nitrate, which promotes a smouldering combustion of the material of the match stick after actual flame has been extinguished. The match stick is then impregnated, as indicated in Fig. 12, with the selected perfuming or odor evolving substance. This perfuming material may, for example, be an alcoholic solution of one of the volatile essential oils, such for example as oil of roses, oil of lavender, or the like, a tincture of musk or sandalwood, one of the essential oils alone, for instance, oil of coffee, vanilla, clove, or the like, or any such compounds of the above, or other substances commonly used by makers of perfume, incense, etc., may be employed. It is further to be noted that the perfuming material may preferably be combined with the chemical substances which promotes smouldering combustion, so that but a single impregnation may be necessary to complete the match stick in accordance with the present invention. Furthermore, when essential oils, rather than tinctures are used, the chemical combustion-promoting substance may be omitted.

It is to be understood that the above operations, that is to say, those of providing the head 9, the waxy substance P, and the combustion-promoting and perfuming elements, are all performed before the match card is mounted in the holder.

The packets of matches thus prepared may now be distributed in the same way as ordinary packets of matches, either as articles of sale or as advertising media, and the matches may be removed and used in exactly the same way as the ordinary match. However, as indicated in Figs. 4, 5 and 6, after the flame F, produced by striking the match head, has died out, and after combustion has proceeded down through the waxy zone P, the user of the match may blow out the flame, whereupon smouldering combustion will continue on down through the treated portion of the match stick, this smouldering usually being accompanied by evolution of tiny bright sparks, as indicated at S, resulting from the chemical treatment of the match stick. During this smouldering combustion the odor evolving substance is so heated as to become volatile and thus a fragrant odor is emitted until the match stick is completely consumed.

During this slow combustion, the stick may be held in the hand of the user, if desired, but conveniently may be set into one of the sockets 14 of the match packet, and the latter allowed to lie horizontally, as shown in Fig. 7, upon a suitable support. To avoid ignition of the holder, it is preferable to treat the lower part of the holder, at least the folded portion thereof, with some material which inhibits combustion, for example a strong solution of alum or the like.

Since the perfuming material forms a part of the match stick and, except by particular effort on the part of the user, is necessarily dissipated into the air whenever the match is lighted, it becomes an automatic source of fragrance instantly available to counteract the unpleasant fumes due to combustion of the chemicals of the match head and the odor of tobacco smoke, and

thus regardless of how many matches may be consumed or how dense the smoke may become, a proportionate amount of the perfuming material is liberated to take care of the situation.

5 After the matches have all been removed from the packet, as illustrated in Fig. 8, the perfumed butt portion 4 still remains within the packet, and as the perfuming substances employed tend to volatilize slowly even when cold, there is always
10 some fragrance emanating from the packet, and thus the packet, after the matches have been used, constitutes a source of fragrance and may be preserved for this purpose and used as a sachet in the same way as any usual type of sachet pack-
15 age.

Some of the advantages of the invention may be attained even though the contents of the packet may not all be self-igniting matches. Thus in Fig. 9 the packet 1^a contains one card of
20 ordinary unperfumed matches, and behind it a card of sticks 5^a similar to the sticks 5 above described and of similar material and similarly perfumed but devoid of striking heads. This form of packet may be perfumed where, by
25 legal regulation, match sticks themselves are required to be treated to limit the period of combustion. The sticks 5^a may be removed from the packet and ignited by the use of the matches forming the front card and then used as incense
30 sticks, being, for example, disposed in the sockets 14 so as to hold them in upright position while burning. However, while this latter embodiment provides certain of the desirable fea-
35 tures of the invention, it does not supply that more particular advantage above referred to of furnishing perfume automatically and in proportion to the number of matches which are used.

While certain desirable embodiments of the invention have been disclosed by way of example, it is to be understood that the invention is not necessarily limited thereto, but is to be regarded as broadly inclusive of all equivalents and modifications falling within the scope of the appended claim.

I claim:

An odor dispensing match packet substantially indistinguishable in external appearance from
10 usual match packets and comprising in combination with an enclosing holder, a butt of paper-like sheet material secured to and disposed within the holder, said butt having a series of match
15 sticks extending therefrom and integrally joined thereto, each match stick having a striking head, there being a line of weakness at the junction of each stick with the butt to facilitate detachment
20 of each individual stick from the butt, said butt with its attached sticks and heads having substantially the same visual appearance as a usual
25 match card, a fragrant substance and a substance promoting smoldering combustion impregnating the butt and a portion of each stick which lies
30 between the head and butt, said fragrant substance being slowly volatilizable at room temperatures and being more rapidly volatilizable at elevated temperatures whereby smoldering of an individual detached match stick evolves a pleas-
ing odor and whereby the butt which remains
35 within the holder even after detachment of all of the match sticks will emit a pleasing fragrance for a long period of time so that the empty holder may constitute a sachet.

DANIEL TOPJIAN.