

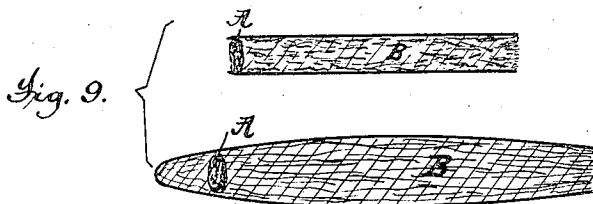
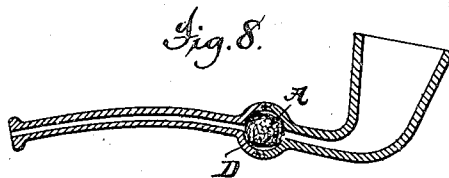
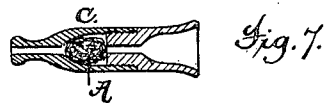
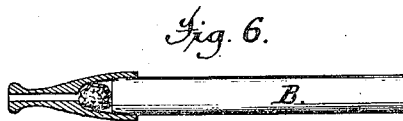
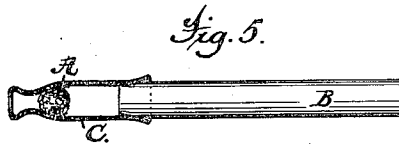
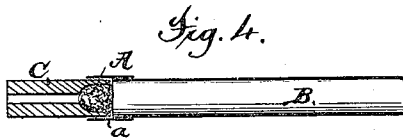
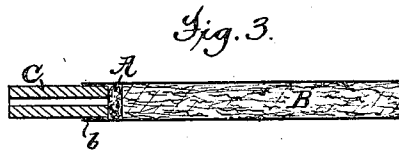
(No Model.)

F. S. KINNEY.

SMOKE FILTER FOR PIPES AND CIGARETTES.

No. 253,296.

Patented Feb. 7, 1882.



Attest;
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Inventor,
Francis S. Kinney,
by Munson & Kilipp
Atty's.

UNITED STATES PATENT OFFICE.

FRANCIS S. KINNEY, OF NEW BRIGHTON, ASSIGNOR TO THE KINNEY TOBACCO COMPANY, OF NEW YORK, N. Y.

SMOKE-FILTER FOR PIPES AND CIGARETTES.

SPECIFICATION forming part of Letters Patent No. 253,296, dated February 7, 1882.

Application filed November 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS S. KINNEY, a citizen of the United States, residing in the city of New Brighton, county of Richmond, and State of New York, have invented certain new and useful Improvements in Smoke-Filters for Pipes, Cigars, Cigarettes, &c., fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

It is well known that the nicotine taken into the system in smoking tobacco is highly injurious to health, and pipes, cigars, cigarettes, &c., have from time to time been provided with devices intended to prevent the passage of this noxious oil into the mouth of the smoker; but the expedients adopted have, however, in practice proved inefficient and unsatisfactory. Among other ways, it has been attempted to rid the smoke of this injurious element by causing it to pass through a loose plug or ball of raw cotton interposed between the tobacco and the mouth-piece of a cigarette, but this did not prove effective and satisfactory. The cotton only detained a part of the nicotine, and it was also found that slight filaments were drawn into the mouth, to the great annoyance of the smoker.

It is the object of this invention to provide a complete remedy for this evil; and to this end I have produced a smoke-filter for pipes, cigars, cigarettes, and the like smoking articles, which primarily consists of some substance having chemical properties which cause it to take up, neutralize, or destroy the nicotine, thus purifying the smoke and rendering it innoxious and pleasant. There are various substances having qualities which adapt them to this use. Among the more effective ones for the purpose are charcoal, tea, coffee, benzoic acid, arsenic of soda, lichen from Iceland, and balsam of tolu. Others, however, having the properties stated, and an additional one which gives perfume to the smoke, may be used. These substances, either singly or in any approved combination, are by the use of a proper vehicle made into wafers, balls, or other shape suitable to the object sought. The filter thus made is used in connection with a pipe, cigar, cigarette, or like smoking article in such manner that the smoke is caused to pass through it, in which

passage the nicotine is taken up, neutralized, or destroyed, and the smoke, it may be, perfumed. An appropriate and effective vehicle for the various substances named is ordinary cotton or other similar filamentous material, though fine sponge or spongy material of any kind will serve the purpose well, as will also, with some of the substances named, many of the gums, their use being to unite granulated particles of the substances into suitable shape in such manner as to permit the smoke to pass freely.

It is to be remarked that cotton, when saturated or treated with one or more of the substances named, will have its filaments so held that they will not readily detach and be drawn into the mouth of the smoker, while the chemical properties of the substance with which the cotton is treated will cause the filter thus constructed to act readily upon the nicotine and other alkaloids contained in the smoke, so that these injurious elements will be entirely eradicated and the smoke rendered pure and wholesome.

The accompanying drawings illustrate some of the various ways in which this invention may be applied to cigarettes, cigars, pipes, &c.

In said drawings, Figure 1 shows perspective views of two forms of filter. Figs. 2 and 3 show two different ways of applying the filter to a cigarette having one of the glass, paper, or cork mouth-pieces in common use. Fig. 4 shows another way of applying the filter to a cigarette, with a cork or wood mouth-piece. Figs. 5, 6, and 7 show ways of using the filter with different styles of detachable mouth-pieces, and Fig. 8 shows how the filter may be used with a pipe. Fig. 9 shows how the filter may be applied to the draft end of an ordinary cigarette or cigar.

The filter A may be made of cotton or other like filamentous material, saturated with some one of the substances hereinbefore named, or with some substance having the same chemical properties. The saturation is well effected by finely powdering the substance and making it into a paste of proper consistency, then spreading the cotton in a very thin layer and soaking it in said paste, and finally rolling the cotton into proper shape for the filter. If, however, the substance is granulated, as can be well done

with coffee, tea, and the like, the filter may be made of a proper quantity of the substance, molded, and retained in form by a suitable cement or gum. Both forms of filter are shown in Fig. 1. One of these filters is then interposed between the tobacco and the point where the smoke issues from the mouth-piece, as in Figs. 2 to 6, where the cigarette or cigar is marked B and the holder C.

In Fig. 2 the filter is placed between the cigarette and the holder, and the whole secured together by the encircling band or strip *a*.

Fig. 3 shows the filter confined between the end of the mouth-piece and the end of the cigarette, where it is secured in place by pasting the projecting end *b* of the wrapper onto the body of the mouth-piece.

Fig. 4 shows a cork or wood mouth-piece, recessed at one end to form a chamber for the reception of the filter, the parts being secured in the manner shown in Fig. 2.

Fig. 5 shows a detachable mouth-piece composed of a thin shell of glass or other material, into which the filter may be inserted.

Fig. 6 shows an ordinary cigar-holder provided with an elongated recess, so as to provide a seat for the filter back of the cigar.

Fig. 7 shows a cigar or cigarette holder made in two parts united by a screw or friction-joint, a chamber being formed for the filter just back of this joint.

Fig. 8 shows a pipe made so as to receive a filter, the stem being made with an enlargement, in which is a cavity to receive the filter. The stem is divided through the center of the enlargement, and the parts held together by a screw-joint. By means of this joint the filter can be inserted, and when unfit for further use it can be removed.

One of these filters may be placed at the draft end of a cigarette or cigar and confined in place by the wrapper, as is illustrated in Fig. 9.

It is my intention to make these filters as a separate article of manufacture, to be used in connection with pipes and detachable cigar and cigarette holders, as shown in Figs. 5, 6, 7, and

8. When so used one filter may be used for several cigars, cigarettes, or pipes of tobacco. Such detached filter may also be inserted in the draft end of a cigarette, as in Fig. 9, by opening one end of the cigarette and forming it in by hand.

By saturating my filter with some suitable substance I may give to the smoke a pleasant taste or smell.

What I claim is—

1. A smoke-filter for cigars, cigarettes, pipes, and the like smoking articles, composed of a vehicle of the character described, carrying in a powdered or finely-granulated condition a substance having purifying properties, substantially as described.

2. As a new article of manufacture, a smoke-filter for cigars, cigarettes, pipes, &c., composed of a suitable vehicle charged with or carrying charcoal, substantially as described.

3. As a new article of manufacture, a smoke-filter for cigars, cigarettes, pipes, &c., composed of cotton charged with or carrying charcoal, substantially as described.

4. The combination of a cigarette, as B, a mouth-piece, as C, and a filter, as A, composed of a vehicle of the character described charged with or carrying in a powdered or finely-granulated condition a substance having purifying properties and interposed between the tobacco of the cigarette and the mouth-piece, all three being permanently secured together, substantially as described.

5. The combination of a cigarette, as B, a mouth-piece, as C, a filter, as A, interposed between said cigarette and mouth-piece, and an encircling band, as *a*, by which all three are secured permanently together, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRANCIS S. KINNEY.

Witnesses:

JAS. A. HOVEY,
H. C. HARDING.