

UNITED STATES PATENT OFFICE.

CARL HERMANN MEHNER, OF BERLIN, GERMANY, ASSIGNOR OF ONE-HALF
TO ALONZO H. SYLVESTER, OF SAME PLACE.

CIGARETTE-WRAPPER.

SPECIFICATION forming part of Letters Patent No. 604,257, dated May 17, 1898.

Application filed May 10, 1897. Serial No. 635,953. (No model.) Patented in Germany November 23, 1894, No. 82,984; in England December 7, 1894, No. 23,852; in Belgium January 16, 1895, No. 113,655, and in France November 30, 1895, No. 252,104.

To all whom it may concern:

Be it known that I, CARL HERMANN MEHNER, a subject of the German Emperor, residing at Berlin, in the German Empire, have
5 invented certain new and useful Improvements in Cigarette-Wrappers, (for which patents have been obtained in Germany, No. 82,984, dated November 23, 1894, additional German patent, No. 86,537, dated August 25,
10 1895; in Belgium, No. 113,655, dated January 16, 1895, additional Belgian patent, No. 117,199, dated August 30, 1895; in England, No. 23,852, dated December 7, 1894, and in France, No. 252,104, dated November 30,
15 1895;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

20 My invention relates to an improvement in cigarette-wrappers that are made of a metallic film—such as, for instance, tin-foil.

The invention consists in a cigarette or cigar wrapper to which the characteristic features hereinafter described and claimed have
25 been imparted by chemically treating the surface of such thin metal foil in such a way that the formation of drops of melted metal is prevented.

30 In the art of cigarette-making it has been repeatedly tried to obviate the disadvantages connected with the use of paper or similar organic substances for cigarette-wrappers by replacing this material with inorganic films
35 of various kinds. Pure tin-foil has been found to be the material best adapted for this purpose; but cigarettes made of this material show a very serious disadvantage, which has hitherto effectually prevented their
40 introduction. This difficulty consists in the circumstance that the heat generated by the burning tobacco is not sufficient to burn the tin-foil. The latter rather coagulates into drops, which fall off and burn the smoker's
45 hands and clothes. Now I have found that this difficulty can be thoroughly obviated if the surface of the tin-foil to be employed as a cigarette-wrapper is covered with a thin coating of certain substances, which soil the
50 surface and thereby prevent the formation of heavy drops of molten metal. This result is obtained by the formation during the com-

bustion of the cigar of an ashy film capable of sucking up and retaining by capillary action drops of molten metal. Various substances may be used for producing the result
55 above stated. If according to the present invention such substances are used which, though chemically indifferent, form an ashy body at the temperature created by the burning tobacco, the molten metal will be sucked up and retained by capillary action.

Chlorid of lime may be employed with success. Tin-foil which has been coated on one side with a weak solution of chlorid of lime
65 will not form heavy drops when heated, but forms a nearly continuous fragile film similar to the ashes of tissue-paper filled by a number of nearly invisible small drops. However, I wish to expressly state that I do not
70 limit the scope of my invention to the use of this special compound, but rather consider it to be self-evident that any competent person can easily find a large number of suitable compounds that will serve as well, the
75 only conditions of success being that the substance used shall be innocuous to the smoker and shall cause such a change of the surface tension of the melted metal that the action of capillarity cannot transform the liquid
80 film into big drops, as usual. Further, I wish to state that what in this specification is called a "cigarette-wrapper" may as well replace the covering-leaf of a cigar in order to produce a cigarette-like product with a different
85 quality of tobacco.

Having now particularly described and ascertained the nature of my said invention and the manner in which the same is to be performed, I declare that what I claim is—
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A cigarette or cigar wrapper, consisting of a thin metal film, coated with a suitable innocuous substance, that will induce such an action of capillarity with the metal, as to prevent the transformation of the melted film
95 into big drops, as and for the purpose set forth.

In testimony whereof I have affixed my signature in the presence of two witnesses.

CARL HERMANN MEHNER.

Witnesses:

W. HAUPT,
LUDWIG KÖNIG.