No. 650,249. Patented May 22, 1900.

J. & F. W. A. HODGE.

APPARATUS FOR CLEANING TOBACCO PIPES.

(Application filed Mar. 2, 1899.)

(No Model.)

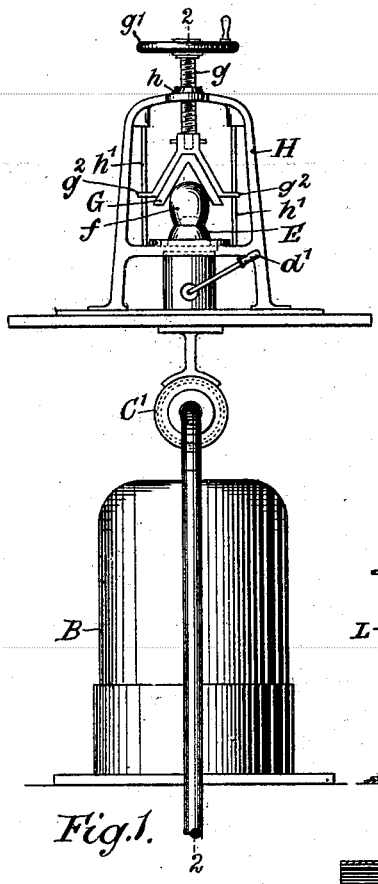

Fig. 1.

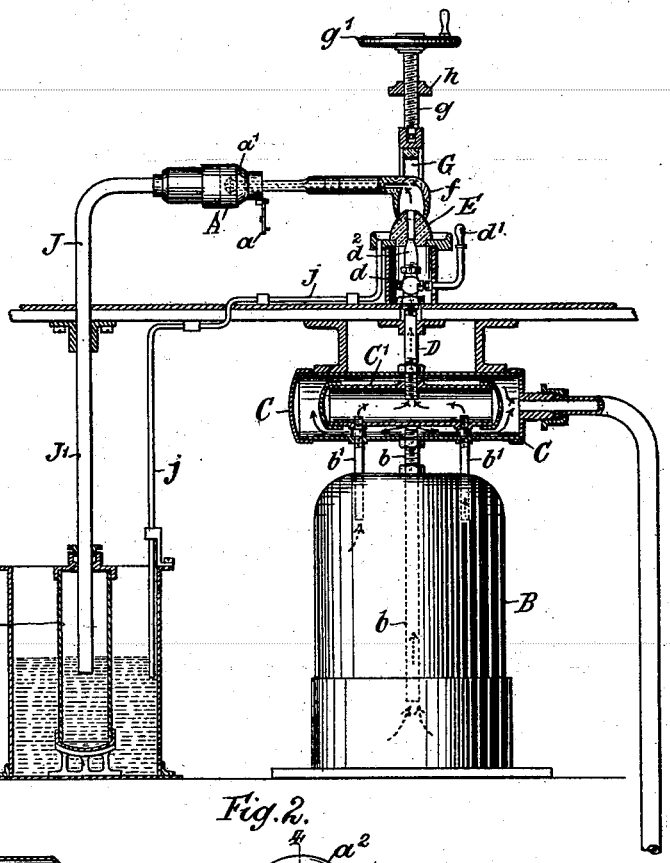

Fig. 2.

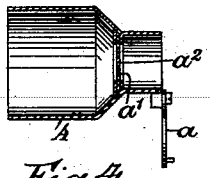

Fig. 4.

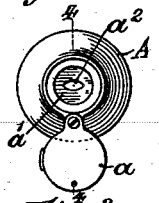

Fig. 3.

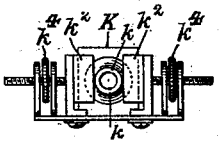

Fig. 6.

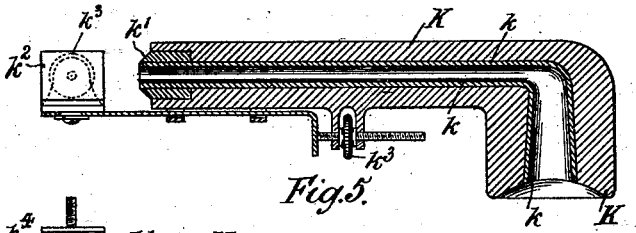

Fig. 5.

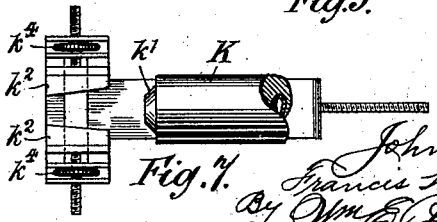

Fig. 7.

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UNITED STATES PATENT OFFICE.

JOHN HODGE, OF EXETER, AND FRANCIS WILLIAM ACKLAND HODGE, OF LONDON, ENGLAND.

APPARATUS FOR CLEANING TOBACCO-PIPES.

SPECIFICATION forming part of Letters Patent No. 650,249, dated May 22, 1900.

Application filed March 2, 1899. Serial No. 707,484. (No model.)

To all whom it may concern:

Be it known that we, JOHN HODGE, residing at Glencairn, Powderham Crescent, Exeter, in the county of Devon, and FRANCIS WILLIAM ACKLAND HODGE, residing at 149 Tottenham Court Road, London, England, citizens of England, have invented certain new and useful Improvements in Apparatus for Cleaning Tobacco-Pipes and Cigar and Cigarette Holders; and we 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.

This invention has for its object to produce an apparatus whereby tobacco-pipes and cigar and cigarette holders can be rapidly and effectively cleaned, so as to remove the nicotine or other deleterious matter therefrom.

In the accompanying drawings, Figure 1 is a front elevation of the complete apparatus with a tobacco-pipe fitted therein to be cleaned, and Fig. 2 is a section on the line 2 2 of Fig. 1. Figs. 3 to 7 are enlarged views showing details. Fig. 3 is a plan of the cap A shown in Fig. 2, and Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a sectional side elevation, Fig. 6 a front elevation, and Fig. 7 a part plan of a modification, showing the holding device for cigar and cigarette holders.

The same letters of reference, where they occur, are used to denote the same or corresponding parts in all the figures.

The apparatus comprises a steam-boiler B, heated by gas or other suitable means, so as to produce steam of sufficient pressure. The boiler is provided with a steam-chest, preferably arranged so that the products of combustion from the furnace pass around it, as shown in Fig. 2, so as to superheat and dry the steam. The fire-gases from the boiler B pass through the flue b to the chamber C, outside the steam-chest C', and thence pass away to the boiler-chimney. The steam from the boiler passes through the pipes b' to the steam-chest C', thence through the pipe D, having a valve d therein, operated by a suitable handle d', said pipe D terminating in a tapered nozzle d^2, around which is secured a conical block E of india-rubber or other elastic material. On this conical block E the bowl f of the pipe is placed and held thereon, so as to be steam-tight, by an elastic-covered clamping device G, carried on the screw-threaded rod g, on the upper end of which is a wheel g' or other suitable means for rotating same in the screwed aperture h of the frame H. The clamping device G is furnished with flanges g^2, (see Fig. 1,) which engage on guide-rods h', fixed to or forming part of the frame H.

The arrangement of the clamping device shown in the drawings is adapted for holding pipe-bowls of different sizes steam-tightly in position on the conical block E; but any other suitable gripping or clamping device adapted to the purpose may be used.

The stem f' of the tobacco-pipe is inserted in a conical-ended metal or other suitable cap A. (Shown separately in Figs. 3 and 4.) This cap is furnished with a pivoted flap or cover a, which is opened, as shown in Figs. 2, 3, and 4, to admit the tobacco-pipe stem f', but which is closed when the apparatus is not in use, so as to prevent the fumes from the condenser from passing out into the room or other place where the apparatus may be fitted. Across the interior of the cap A is fitted a membrane a', made of some suitable elastic material and having a central oval-shaped aperture a^2 therein to receive the end of the pipe-stem. The object of this elastic membrane is, first, to prevent, as far as possible, any escape of steam backward while the tobacco-pipe is inserted, and, secondly, to keep the stem of the tobacco-pipe as nearly as possible in the center of the cap A. The metal or other cap A is attached to a rubber or other elastic tube J, connected to a metal tube J', dipping below the surface of a liquid in a suitable condensing-chamber L.

j is a tube leading from a gutter or channel e around the block E, so as to carry off any liquid or other matter which may condense on or about the block E and lead same into the condensing-chamber.

For cleaning a cigar-holder or a cigarette-holder or the stem of a pipe separately from the bowl an interchangeable piece K, such as is shown in Figs. 5, 6, and 7, is provided and gripped or clamped on or to the conical block E around the upper tapered nozzle d^2 of the steam-pipe D. This interchangeable piece

has a steam passage-way k therethrough and is provided with a rubber or other elastic covered face k', against which the end of the cigar or cigarette holder or pipe-stem is held by rubber or other elastic blocks k^2, carried by adjustable gripping or clamping devices, so as to hold same steam-tightly in position. The screw-nut k^3 effects the longitudinal adjustment and the nuts k^4 the transverse adjustment of the clamping-blocks k^2.

When the article to be cleaned has been fixed steam-tightly in position, the valve d is operated and steam blown through the tobacco pipe or holder for a sufficient time to carry the nicotine or other deleterious matter from the pipe through the apparatus to the condenser, when steam is turned off, the pipe or holder wiped, and the operation is completed.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is—

1. In an apparatus of the character described, the combination of a boiler having a steam-chest, a steam-pipe leading from said chest and terminating in a tapered nozzle, an elastic block surrounding said nozzle, means for holding an article to be cleaned in position to receive steam from the steam-nozzle, a cap to receive the stem of the article, a condenser, and a connection between the latter and the cap.

2. In an apparatus of the character described, the combination of a boiler having a steam-chest, a steam-pipe leading from said chest and terminating in a tapered nozzle, an elastic block surrounding said nozzle, means for holding an article to be cleaned in position to receive steam from the steam-nozzle, a cap to receive the stem of the article, a condenser, a metal tube dipping into the condenser and an elastic tube connected to said metal tube and the cap.

3. In an apparatus of the character described, the combination of a boiler having a steam-chest, a steam-pipe leading from said chest and terminating in a tapered nozzle, an elastic block surrounding said nozzle, a gripping or clamping device adapted to hold the bowl of the pipe steam-tightly to the steam-nozzle, a cap to receive the pipe-stem, a condenser and a connection between the latter and the said cap.

4. In an apparatus of the character described, the combination of a boiler having a steam-chest, a steam-pipe leading from said chest and terminating in a tapered nozzle, an elastic block surrounding said nozzle, an interchangeable piece having a steamway therethrough and an elastic-covered face and elastic blocks adjustable transversely, means for holding the interchangeable piece steam-tightly to the steam-nozzle, a cap to receive the stem of the article, a condenser and a connection between the latter and the said cap.

JOHN HODGE.
FRANCIS WILLIAM ACKLAND HODGE.

Witnesses to the signature of John Hodge:
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Witnesses to the signature of Francis William Ackland Hodge:
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