DENTAL HOT AIR BLOWER

Filed Feb. 9, 1928

Feb. 5, 1929.

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1,701,025

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The invention relates to improvements in dental devices for discharging a jet of hot air, and it aims to provide an exceptionally simple and inexpensive, yet efficient and reliable device of this class, in which the heating element is so covered as to prevent burning the patient’s mouth.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawings.

Fig. 1 is a side elevation partly broken away and in section showing the invention connected with a hand bulb for forcing air therethrough.

Fig. 2 is a view similar to Fig. 1, but showing the front body section removed from the rear section, exposing the air-heating element to permit heating of the latter.

Fig. 3 is a view similar to Fig. 1 but showing the device connected with a hose leading from a compressed air reservoir (not shown).

Fig. 4 is a side elevation partly in section showing a different form of heating element.

Fig. 5 is an enlarged sectional view partly in elevation of the heating element shown in Fig. 4.

The drawing above briefly described, illustrates the preferred form of construction and while this form will be specifically explained, it is to be understood that within the scope of the invention as claimed, variations may be made.

The numeral 4 on the drawing denotes a rear, cylindrical, body section having a forwardly projecting threaded boss 5 on its front end and a neck 6 on its rear end, the neck being adapted for connection either with an air bulb 7 or an air hose 8. Body 4 is provided with a central longitudinal bore 9 which opens both through the boss 5 and the neck 6 and has its front portion enlarged and threaded as at 10. Threaded into this enlarged bore portion 10 is the reduced rear end portion 11 of an air-heating element 12 of metal or other desired heat-absorbing material, said element 12 being of cylindrical form and having an air-heating bore 13 from end to end, communicating with the bore 9.

A front, cylindrical, body section 14 is detachably connected with the rear body section 4, being provided with a longitudinal bore 15 which receives the heating element 12 and is enlarged and threaded at its rear end as denoted at 16, snugly and removably receiving the boss 5. The front portion 17 of the bore 15 is reduced, and in it, an air-discharge nozzle 18 is fitted.

In Figs. 4 and 5, the heater 12A embodies a cylindrical body 19 reduced and threaded at one end as at 20 for reception in the front end of the bore 9, said body having a helical groove 21 in its periphery, and a port 22 for conducting air to said groove from the bore 9, said groove opening through the front end of the body. Tightly surrounding this body 19 is a tube 23 which spans the groove 21 and forms with the latter an air heating port.

When the front body section 14 is removed, the element 12 or 12A is exposed for heating with a flame. Upon re-application of the front section 14, and passage of air through the port 9 and the communicating ports, either from the bulb 7 or the hose 8, this air is heated by contact with the element 12, giving a discharge of warm air at the nozzle 18. In some instances, an element such as 12 or 12A might be provided, having electrical heating means, but either element herein disclosed will retain heat for a sufficient time to effectively perform dental operations in connection with which the instrument is used, and it will be observed that said element is so covered as to prevent burning the patient’s mouth.

I claim:

1. A dental hot air blower comprising a rear cylindrical body section having a longitudinal air passage from end to end, an air heating element carried by the front end of said body section and having an air-heating port from end to end communicating with the aforesaid bore, and a front cylindrical body section detachably connected with said rear section and having a bore receiving said heating element, the front end of said front body section being provided with an air discharge nozzle communicating with the bore of said front section.

2. A dental hot air blower comprising a rear cylindrical body section having a forwardly projecting boss on its front end, a rearwardly projecting neck on its rear end, and a central
air passage whose ends open through said boss and said neck respectively, an air-heating element projecting forwardly from said boss and having its rear end held in the front end of said passage, said heating element having an air-heating passage from its rear to its front end, and a front cylindrical body section having a bore from end to end removably receiving said boss and said air-heating element, the front end of said front section having a discharge nozzle communicating with the front end of the last named bore.

In testimony whereof I have hereunto affixed my signature.

LUTHER ALVIN YOUNG.