T. T. CATER.

DENTAL VULCANIZER ATTACHMENT.

APPLICATION FILED OCT. 13, 1914.

1,212,016. Patented Jan. 9, 1917.

Fig. 1.

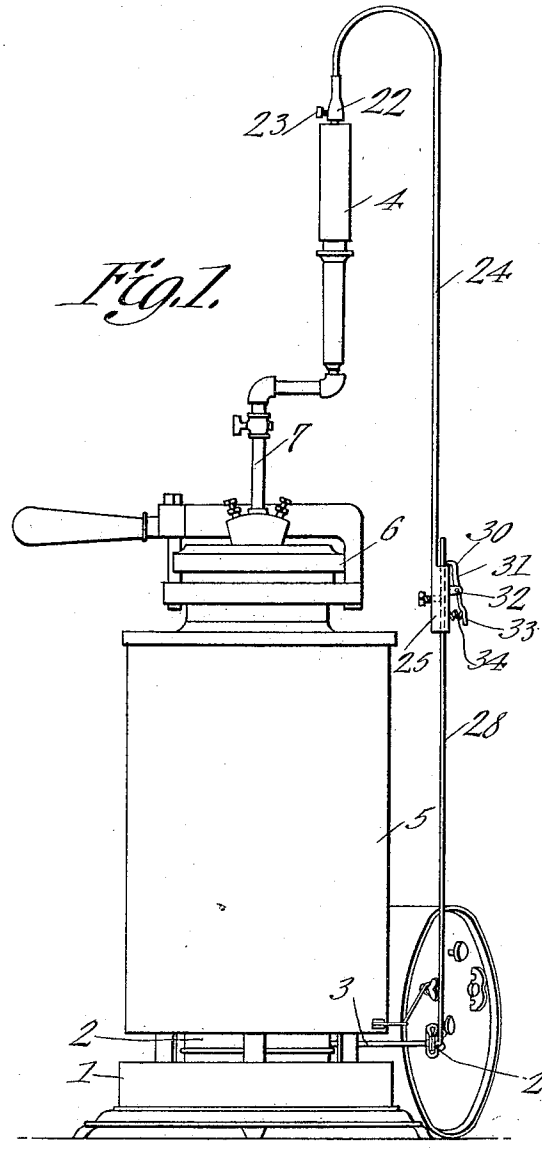
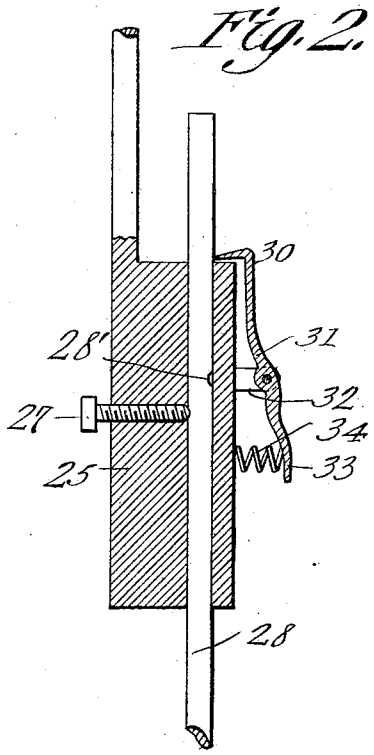


Fig. 2.



Witnesses

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DENTAL-VULCANIZER ATTACHMENT.

1,212,016. Specification of Letters Patent. Patented Jan. 9, 1917.

Application filed October 13, 1914. Serial No. 866,517.

To all whom it may concern:

Be it known that I, THEODORE T. CATER, a citizen of the United States, residing at Columbus, in the county of Cherokee and State of Kansas, have invented a new and useful Dental Vulcanizing Attachment, of which the following is a specification.

The present invention relates to improvements in dental vulcanizing attachments, relating more particularly to an improvement upon the attachment shown in the co-pending application filed July 13, 1914, Serial No. 850,785, one object of the present invention being the provision of an adjustable connection between the sectional rods of the device shown in the above application, whereby the device may be readily used upon vulcanizers of different characters, so that the wick will be turned up or down during the vulcanizing process, due to the pressure controlled medium thereof.

A further object of the present invention, is the provision of a sectional rod adapted to be connected to the pressure actuated device of a vulcanizer at one end and the opposite end to a burner of an oil heater, such sections being connected together so that a limited movement is had between the sections during the rising of the pressure, such sections not being connected until a predetermined pressure has been secured in the vulcanizer, at which time the continued pressure actuates to turn down the burner.

It has been found in practice that where the device as shown in the above application is placed in operation, that vulcanizers although of the same type, have individual traits that necessitate various adjustments to regulate the height of the flame during the vulcanizing process. It is therefore to accommodate the present device to these variations that the connecting rod is provided with an adjustable sleeve carrying a spring operated locking device that resiliently bears upon one of the rods, such rods when the device has been adjusted to its particular vulcanizer being provided with a recess to receive the lock, such recess being disposed at what is termed the 310 to 320 degree point of the vulcanizer.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings, Figure 1 is a side elevation of the complete vulcanizer attachment as attached to a vulcanizer and heater, such heater being preferably a wick oil burner. Fig. 2 is an enlarged detail sectional view through the coupling of the two rods, whereby the wick actuating stem or sectional rod is adjustably connected.

Referring to the drawings, the numeral 1 designates the lamp proper, which is provided with the burner 2, and with the wick actuating stem 3. The heater 5 supports the vulcanizer 6, which has led therefrom, the steam conducting pipe 7 to the pressure actuated member 4. These parts are identical with the parts referred to by similar reference numerals in my co-pending application.

Adapted to be attached to the device, is a coupling 22 having a set screw 23, the said coupling having attached thereto, the rod 24, which is adapted to extend downwardly and carries the coupling sleeve 25. This coupling sleeve 25 is connected when desired by means of the set screw 27 to the rod 28. This rod 28 may be a square or round rod where it passes through the coupling 22, and its lower end at 29′ is connected to the wick controlling stem, as in the former application.

In order to provide a variable adjustable coupling for the rods 28 to accommodate various vulcanizers, whose individual traits vary, the rod 28 is provided, after the present device has been adjusted to the vulcanizer, with a recess 28′, which is adapted to receive the end 30 of the pivoted member 31. This member 31 is supported in the bracket 32 carried by the sleeve 25, the free end 33 thereof being held upwardly with the end 30 resiliently in engagement with the rod 28 by means of the spring 34.

In using the present device, it is essential that the rods 24 and 28 be properly adjusted according to the individual apparatus to which it is to be applied. At first, the parts are positioned as shown in Fig. 1 with the set screw 27 released from the rod 28 to allow the sleeve 25 to slide. The burner is now lighted, and when the thermometer, which is usually provided with a vulcanizer, has reached a 110 degree point, pressure is then

turned on at the cut off valve and if the pressure will not elevate the piston in the device 4, the operator elevates the coupling 22 and consequently the rod 24 until the spring of the device 4 as shown in the before mentioned application is resting against the top of the device. As the pressure increases, the wick is automatically turned down and continuous watch must be kept until the 320 degree mark is reached, at which period with a sharp instrument, a line is made upon the rod 28 at the point adjacent to the contact of the point 30 therewith, this completes the first step in the adjusting operation of the present device.

The next operation is similar to the above operation except that the stem 28 is permitted to slip until the 310 degree mark is reached at which time with the sharp instrument a mark is made adjacent to the point where the point 30 of the device 31 engages the stem 28 and upon this mark with a file is produced a notch 28′ which provides a square edge for the end 30 of the spring actuated member 31 to engage. With the parts in this position, a vulcanizer may be put in use in the regular way. In doing this the burner is lighted and the operator must watch until the 110 degree mark is reached, and allow 30 minutes for the temperature to increase, according to the vulcanizer, the clock, as set forth in the before mentioned case, may then be adjusted and regulated for snuffing out the light at the end of a predetermined vulcanizing period, and as the end 30 of the device 31 is placed in the recess 28′, the rods 24 and 28 are properly connected so that the wick controlling stem 3 will be operated to raise or lower the wick during the vulcanizing process and thus maintain the desired temperature at all times.

It will thus be seen that with the present device, that the rods 24 and 28 may be adjusted for operating upon individual vulcanizers which have varying traits, so that the burner controlled by the stem 3 will be properly adjusted to raise or lower the wick and consequently the flame during the entire vulcanizing process, the clock at the desired set time causing the flame to be snuffed out and consequently the vulcanizing operation to cease.

It will thus be seen that with this construction, by constructing the device 31 as illustrated in Fig. 2, the set screw 27 being released as the pressure actuated device 4 is operated to elevate the sleeve 25, that the notch 28′ being above the engaging end 30 of the device 31, that the engaging end 30 will slide upon the rod 28 for a predetermined distance, or until the pressure has reached the point at which it is desirable to turn down the burner at which point the notch 28′ is engaged by the free end of the spring actuated device 31 and consequently the sections 24 and 28 rigidly connected so that a continued upward movement of the rod 24 will elevate the rod 28 and thus turn down the burner.

What is claimed is:

A connection between the lamp of a dental vulcanizer and a pressure controlled element of the vulcanizer, comprising an upper rod having a laterally offset socket; a lower rod longitudinally adjustable in the socket and having vertically spaced notches in its opposite edges; a set screw threaded into one side of the socket and adapted to cooperate with one notch; a lever fulcrumed intermediate its ends on the opposite side of the socket, the lever terminating in an angular pawl engaging the lower rod, and adapted to coöperate with the other notch, the pawl lying above the upper end of the socket and being freely exposed, thereby to permit a mark to be made on the lower rod in alinement with the pawl whereby to facilitate the location of the notch with which the pawl engages; and spring means coacting with the lever and with the socket to cause the pawl to engage the upper rod.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

THEODORE T. CATER.

Witnesses:
O. O. Gordon,
Leslie Gallagher.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."