Aug. 26, 1924. 1,506,328

A. F. PIEPER

DENTAL EQUIPMENT STAND

Filed Jan. 26, 1923

Fig. 1

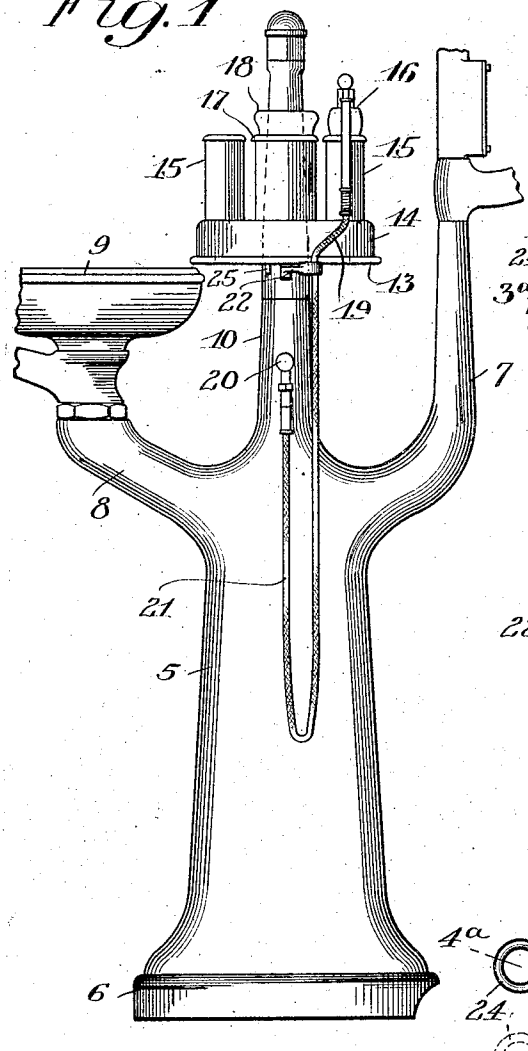


Fig. 2

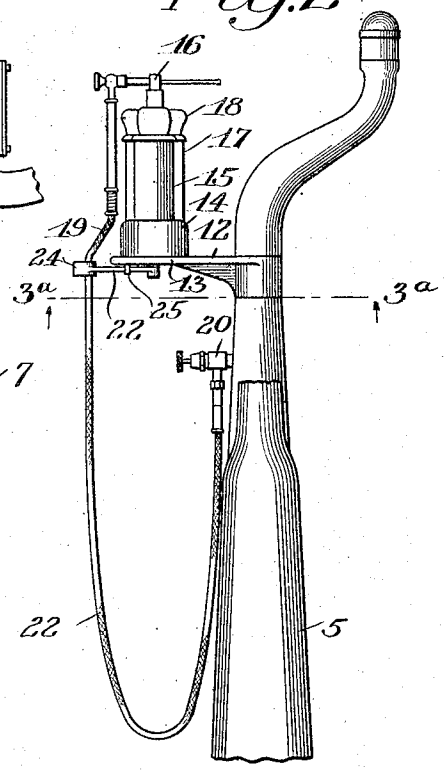


Fig. 3

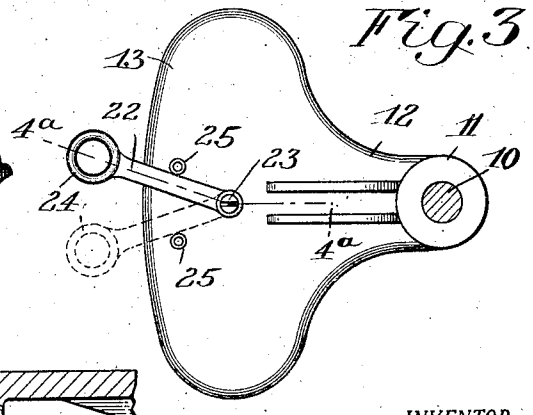
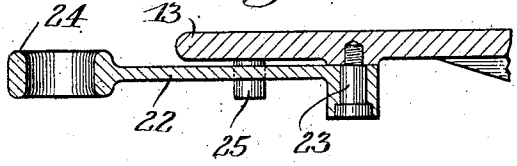


Fig. 4



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UNITED STATES PATENT OFFICE.

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DENTAL EQUIPMENT STAND.

Application filed January 26, 1923. Serial No. 615,178.

To all whom it may concern:

Be it known taht I, ALPHONSE F. PIEPER, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Dental Equipment Stands; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference numerals marked thereon.

This invention relates to dental equipment stands and more particularly to the variety carrying movable equipment or instruments, such, for example, as an atomizer, connected with the stand by extensible conducting means for supplying the equipment with an operating medium as, for instance, air under pressure, the chief object of the invention being to provide a dental equipment stand of this variety having a practical and advantageous form of construction and arrangement for supporting the removable equipment and supporting and controlling its extensible supply means and thereby facilitating the convenient use thereof. To these and other ends the invention resides in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Figure 1 is a front elevation of a dental equipment stand, partly broken away, embodying the present invention;

Figure 2 is a side elevation of a portion of the same;

Figure 3 is a sectional view on the line 3^a—3^a in Figure 2 and

Figure 4 is a sectional view on the line 4^a—4^a in Figure 3.

Similar reference numerals throughout the several views indicate the same parts.

The invention is embodied in the present instance in a dental equipment stand of the general variety disclosed in my copending joint application with Oscar H. Pieper, Serial Number 602,414, filed November 21, 1922 for "dental equipment stands" and comprising, among other features, means for supporting equipment or tools on the stand for removal therefrom for use over an adjacent dental chair, with a flexible, extensible supply connection or conduit between such removable equipment and a source of supply of air or their operating medium in the stand. It has been found that the extensible conductor is subject to becoming caught or entangled with other objects in use thereby hindering free extensible movement of the equipment and is also subject to becoming worn in use. Unless a suitable construction and arrangement for these parts is provided the conductor may also be inadvertently engaged by moving objects and so pulled as to displace the equipment from its supporting means. These various difficulties have been advantageously overcome by the present invention, a preferred embodiment of which, by way of illustration, is described below in detail.

Referring more particularly to the drawings there is shown at 5 a column or standard having a base 6 adapted to rest on the floor at one side of a dental chair. The standard branches at its top into one arm 7 for supporting a dental engine for example, into another arm 8 for water supply means and a cuspidor 9, and into an intermediate arm 10 for additional parts such, for example, as a supporting means or bracket for atomizers or other equipment or instruments. In the present form of the apparatus arm 10 rotatably carries a collar 11 from which projects forwardly of the machine a bracket arm 12 enlarged at its forward end to provide a shelf 13 thus conveniently positioned for access adjacent a dental chair and within easy reach of the dentist. Shelf 13 in the present instance is employed to support heating means for one or more atomizing bottles and a drinking glass. The heating means is indicated at 14 and comprises receptacles 15 for an atomizer indicated generally at 16 and a receptacle 17 for a drinking glass 18.

The atomizer is actuated by air under pressure supplied through a flexible conductor or cord 19 connected at one end with the atomizer as shown and at its other with a nipple 20 projecting from a suitable source of supply (not shown) within the standard. The atomizer is of course intended for use at the patient's mouth, being removable from its receptacle 15, and

to provide for such extensible movement and use of the atomizer the conductor 19 has its intermediate portion arranged in a depending loop 21 as shown, below the bracket shelf 13.

To retain the conducting means or cord 19 adjacent the standard to prevent it from contacting with objects in use and from being accidentally engaged and pulled by moving objects and thus displacing the atomizer, there is provided retaining or keeper means adjacent the supporting shelf 13 thru which the conductor is slidably passed to maintain its loop or slack portion adjacent the standard.

The retaining means for the extensible conductor is preferably in the form of an arm 22 pivotally supported at one end, as by means of a stud 23, on the under side of shelf 13 and projecting forwardly adjacent the front of the latter where the other end of the arm is provided with keeper means for the conductor in the form of a ring 24 thru which it is slidably passed. The pivotal mounting of the keeper permits its forward end to swing adjacent the different positions of the atomizer or instrument on the shelf, such swinging movement being limited by stops 25 on the under side of the shelf.

It is apparent from the above description and the drawings that the extensible conducting means for the removable equipment has its looped portion 21 retained adjacent the standard so that when the atomizer is moved adjacent the patient's mouth the conductor extends from the elevated keeper ring 24 and is not likely to become entangled in the dental chair or other objects. This reduces the wear on the conductor and the slack of the latter is furthermore maintained adjacent the standard out of the way of moving objects. If engaged by the latter, the pull transmitted to the equipment is in a downwardly direction against the supporting means or shelf so as unlikely to cause the displacement of the equipment or atomizer. The keeper ring 24 affords an easy sliding movement of the conductor with little wear on the latter and without obstructing the free and unhampered use of the equipment.

I claim as my invention:

1. A dental equipment stand provided with an instrument and with means for removably supporting the latter thereon, a flexible conductor connected at one end with said instrument and at the other with said stand and having its intermediate portion looped to provide for extensible movement of said instrument, and an arm pivotally mounted at one end adjacent said supporting means and provided at its other end with a keeper portion for retaining the looped portion of said conductor adjacent said stand.

2. A dental equipment stand provided with a forwardly extending bracket for removably supporting an atomizer, an atomizer thereon, a flexible conductor connected at its ends with said atomizer and stand, respectively, and having in its intermediate portion a depending loop to provide for extensible movement of said atomizer, and a movable keeper on said bracket through which said conductor slides for retaining the looped portion of the latter adjacent said stand.

3. A dental equipment stand provided with a forwardly extending bracket for supporting an instrument, an instrument removably supported on said bracket, a flexible supply conductor connected at its ends with said instrument and with said stand, respectively, and having its intermediate portion depending in a loop below said bracket to provide for extensible movement of said instrument, and an arm pivoted at one end to said bracket and having a keeper portion at its other end slidably engaging said conductor to retain the same adjacent said stand.

4. A dental equipment stand comprising a standard, a forwardly extending bracket shelf thereon, an atomizer removably supported on said shelf, a flexible supply conductor connected at its ends with said atomizer and with said standard, respectively, and having its intermediate portion depending in a loop below said shelf, and an arm pivoted on said shelf having a keeper ring at its outer end through which said conductor is slidably passed to retain the looped portion thereof adjacent said standard.

ALPHONSE F. PIEPER.