No. 750,615. PATENTED JAN. 26, 1904.

W. M. DAILEY.

DENTAL APPLIANCE.

APPLICATION FILED AUG. 8, 1903.

NO MODEL.

Fig. 1.

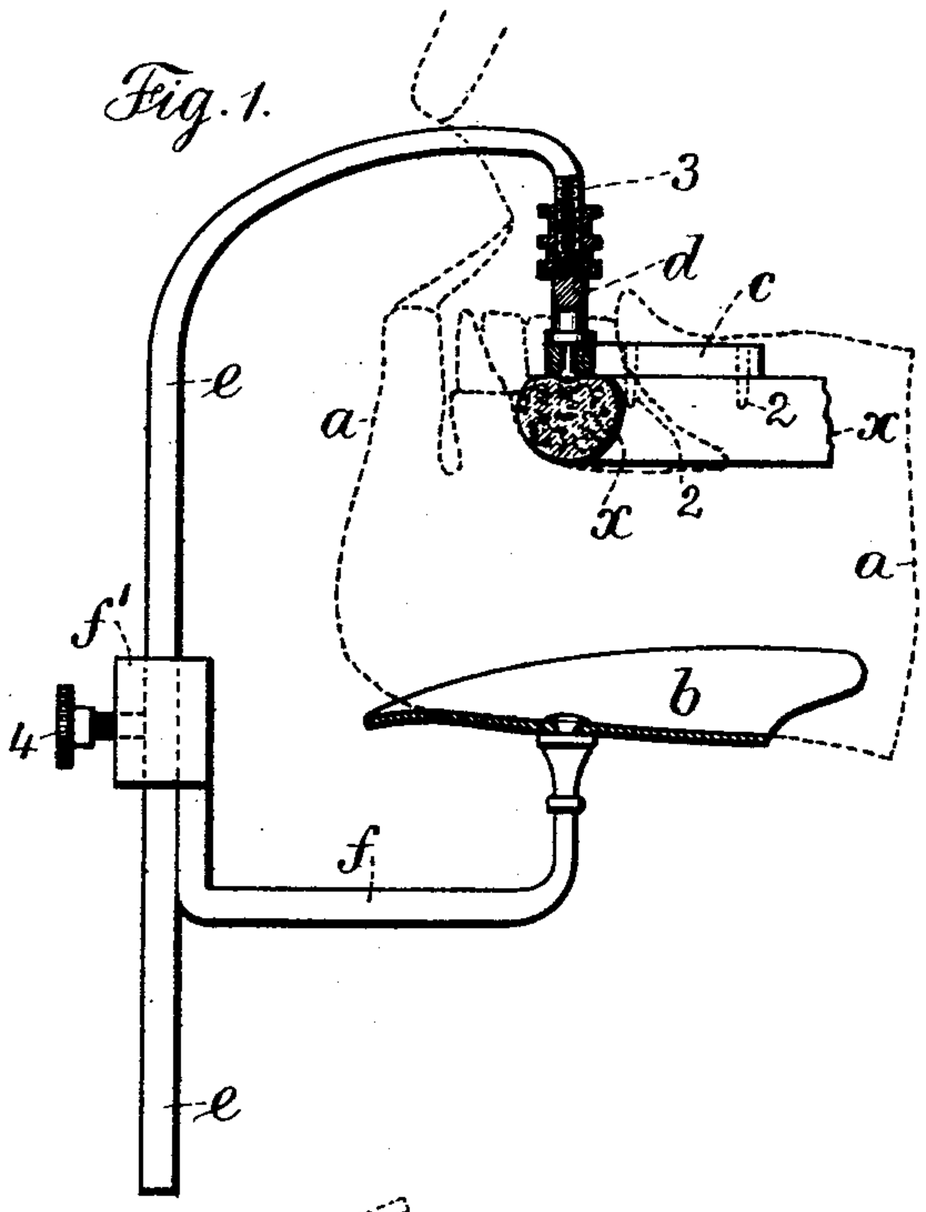


Fig. 2.

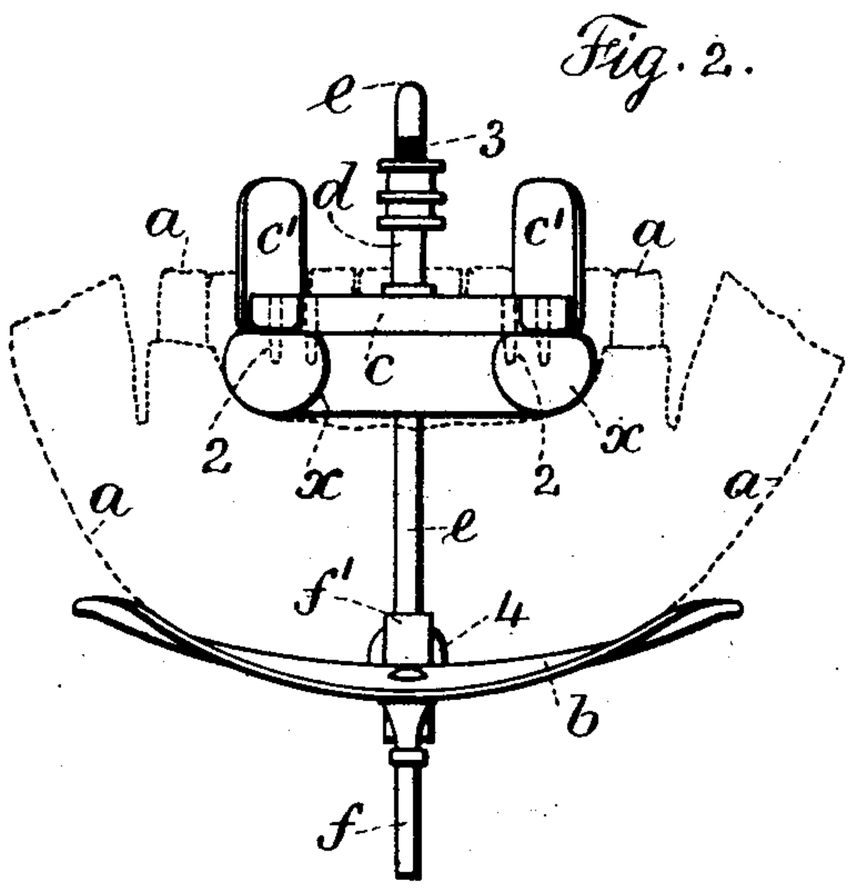


Fig. 3.

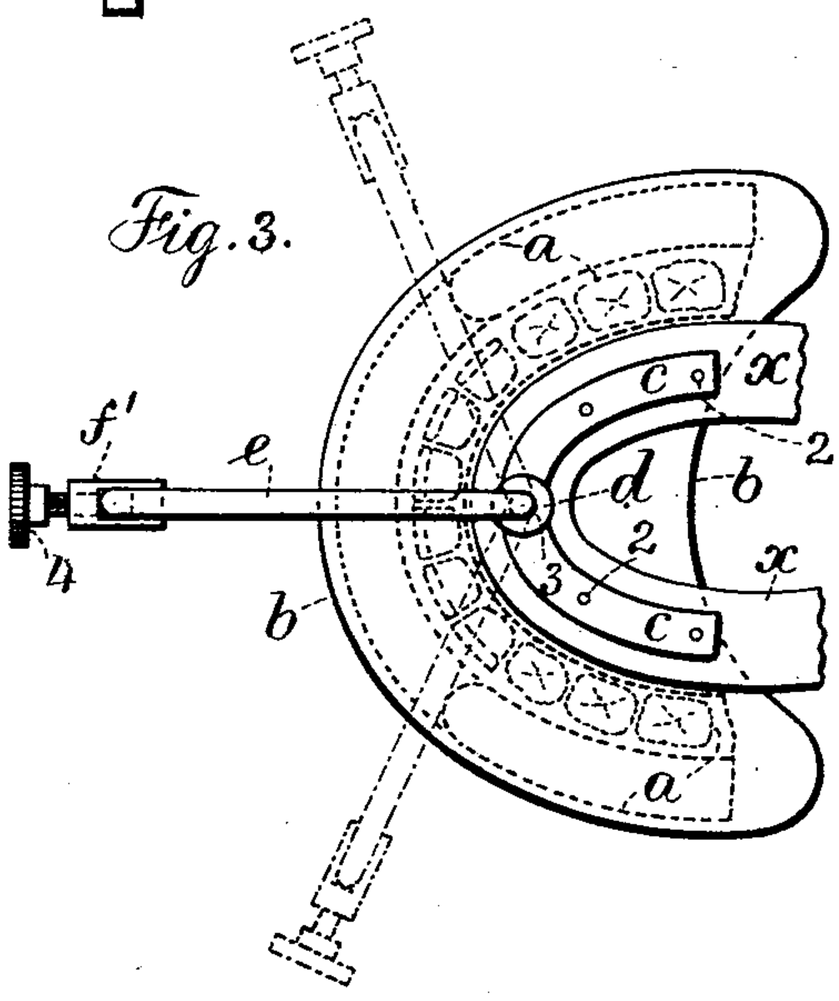
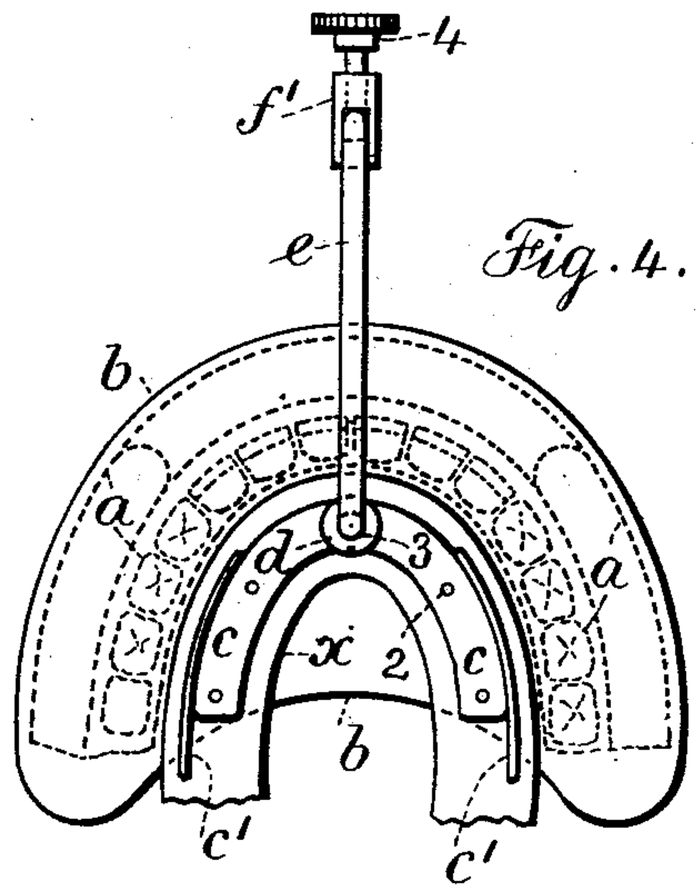


Fig. 4.



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No. 750,615. Patented January 26, 1904.

UNITED STATES PATENT OFFICE.

WILBER M. DAILEY, OF NEW YORK, N. Y.

DENTAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 750,615, dated January 26, 1904.

Application filed August 8, 1903. Serial No. 168,706. (No model.)

To all whom it may concern:

Be it known that I, WILBER M. DAILEY, a citizen of the United States, residing in the borough of Manhattan, in the city, county, and State of New York, have invented an Improvement in Dental Appliances, of which the following is a specification.

My invention relates to a device adapted for facilitating dental operations upon the lower incisor, molar, bicuspid, and cuspid teeth, with the object of holding the aseptic-cotton rolls employed in connection therewith firmly in place. At the same time and without disturbing its functions it is possible to shift part of the instrument so that it may not be at all in the way of the operator.

In carrying out my invention a place of support is utilized by a plate of curved form beneath the chin. A part or bar having depending prongs bears upon the roll of aseptic cotton, and an adjustable frame employed for holding the said parts in position and applying pressure has pivotal connections thereto in the same vertical axis. Consequently it is possible to swing this frame so as to cause the same to occupy any desired position in the mouth without disturbing its holding function with reference to the roll of cotton. The said plate is preferably adapted to conform to the chin. The part with prongs is preferably of U form to fit within the teeth of the lower jaw and generally conform thereto. This part is to be made in sizes for different-sized rows of teeth and may be provided with rising plates to keep back the tongue.

In the drawings, Figure 1 is a side elevation and partial section representing my improvement. Fig. 2 is a rear elevation of the same with the rising plates. Fig. 3 is a plan of the parts shown in Fig. 1, and Fig. 4 is a plan of the parts shown in Fig. 2.

In all of the figures of the drawings, *a* represents by dotted lines the outline of the human mouth, chin, and teeth, so as to show the relation thereto of the mechanical structure.

b is a plate of sheet metal generally conforming to the upper neck or under chin portion, the same being provided with a curved outer edge and incurved back edge and being concave in cross-section or in end elevation.

c represents a bar of substantially U form in plan with depending prongs 2, which are advantageously formed of wires passing through and secured to said bar. This bar *c* is adapted to rest against and bear down upon a roll *x* of aseptic cotton bent to conform to the inner curve of the jaw and teeth and fitting within the lower jaw and between the same and the tongue. This bar *c* may simply be provided with the prongs 2, as shown in Figs. 1 and 3, or it may also be provided with rising plates *c'* at opposite sides and which are preferably secured to the outer wall of the said bar and extend appreciably above the bar for the purpose of holding back the tongue. This construction is shown in Figs. 2 and 4. The bar *c* is centrally perforated, and connected thereto at said perforation is a swivel-socket *d*. The lower end of this socket has a pin passing through the perforation of said bar, so that the bar is free to turn upon the socket. The upper end of this socket is interiorly threaded to receive the threaded stem 3 at the free overturned end of the arm *e*.

The arms *e* and *f*, together with the clip *f'*, secured to the arm *f* and passing around the arm *e*, form a frame, and a screw 4 passes through the clip *f'* to securely hold the arm *e* to the arm *f* in the desired and connected relation. The free end of the arm *f* is pivotally connected to the chin-plate *b*. The pivotal connections of the arm *f* to the plate *b* and of the socket *d* to the bar *c* are in the same vertical axis. Consequently it is possible to swing the frame composed of the arms *e* and *f*, the clip *f'*, and the screw 4 from the position Fig. 3 in full lines to either of the dotted-line positions shown or to any position intermediate thereof without in any wise disturbing the chin-plate *b* or the bar *c* or the functions performed by any of said parts.

The bars *c* are preferably made in sizes, as it will be apparent that a child's mouth will require a much smaller bar than the mouth of a grown person. Therefore I prefer to employ several sizes of the bars *c*, and in removing one bar *c* to be interchanged by another it is only necessary to unscrew the swivel-socket *d* from the exteriorly-threaded portion 3 of the arm *e* and place thereon another

socket interchangeable with the socket *d* and bar connected thereto. It is also apparent that instead of making the bar *c* of a substantially U form a bar may be employed only on one side with the same swivel-socket connection.

I do not herein limit myself to the precise form of the chin-plate *b*, to the precise form of the bar *c*, nor to the precise form and connected relation of the frame composed of the arms *e f*, clip *f'*, and screw 4, as these may be varied and their pivotal connections still be in the same vertical axis for the performance of the essential functions of the structure.

I claim as my invention—

1. As a dental appliance, a plate adapted to bear beneath the chin, a bar adapted to rest upon a roll of aseptic cotton within the mouth, an adjustable frame connected pivotally to each of said parts, the pivotal connections thereof being in the same vertical axis so as to permit the frame to swing without disturbing the parts.

2. As a dental appliance and in combination, a plate having a curved outer edge and incurved rear edge and concave in section so as to fit beneath and conform generally to the chin, a bar having depending prongs or their equivalent and adapted to rest upon a roll of aseptic cotton fitted in the mouth between the teeth and the tongue, a frame of adjustable parts pivotally connected to both said chin-plate and to said bar, the pivotal connections thereto being in the same vertical axis thereby permitting the frame to be swung into different positions without affecting the said plate or bar.

3. As a dental appliance and in combination, a bar having depending prongs adapted to rest upon a bent roll of aseptic cotton fitted in the mouth between the teeth and the tongue, a plate adapted to fit beneath the chin and an adjustable frame having pivotal connections with both said bar and plate, said pivotal connections being in the same vertical axis, substantially as set forth.

4. As a dental appliance and in combination, a plate having a curved outer edge and an incurved rear edge and concave so as to fit beneath the chin, a bar of substantially U form having depending prongs or their equivalent adapted to rest upon a bent roll of aseptic cotton in the mouth between the teeth and the tongue, an adjustable frame having pivotal connections with both said chin-plate and frame, said pivotal connections being in the same vertical axis permitting the frame to swing, and one or more plates secured to the said bar and rising therefrom within the mouth for keeping back the tongue.

5. As a dental appliance, a plate adapted to bear beneath the chin, a bar adapted to rest upon a roll of aseptic cotton or other material within the mouth, and an adjustable frame at one end connected to the plate and at the other end removably connected to the bar to receive other interchangeable bars or parts, substantially as specified.

6. As a dental appliance and in combination, a plate having a curved outer edge and an incurved rear edge and concave so as to fit beneath the chin, a bar of substantially U form having depending prongs or their equivalent adapted to rest upon a bent roll of aseptic cotton in the mouth between the teeth and the tongue, an adjustable frame having pivotal connections with both said chin-plate and frame, said pivotal connections being in the same vertical axis permiting the frame to swing.

7. As a dental appliance, and in combination, a bar having depending prongs adapted to rest upon a bent roll of aseptic cotton fitted in the mouth between the teeth and the tongue, a plate adapted to fit beneath the chin, and an adjustable frame at one end connected to the plate and at the other end removably connected to the bar to receive other interchangeable bars or parts of different sizes, substantially as specified.

Signed by me this 20th day of July, 1903.

WILBER M. DAILEY.

Witnesses:
GEO. T. PINCKNEY,
S. T. HAVILAND.