

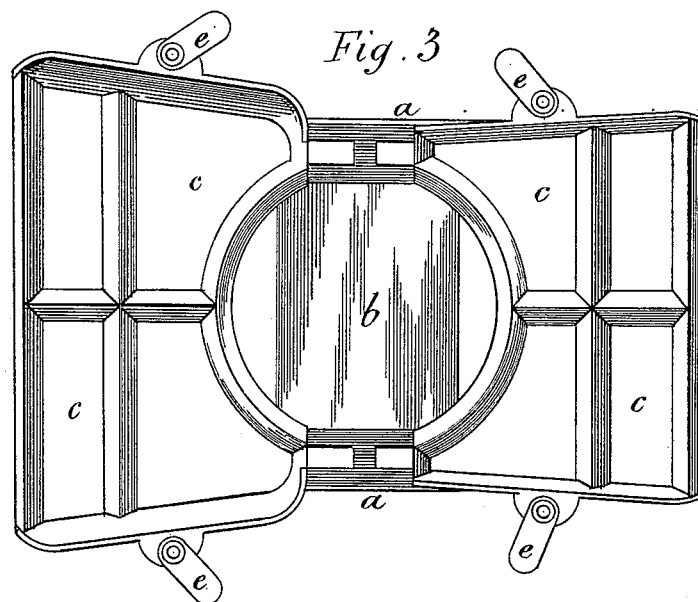
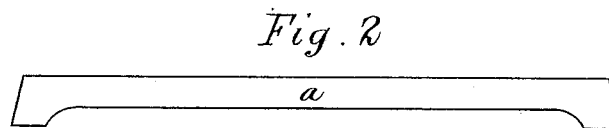
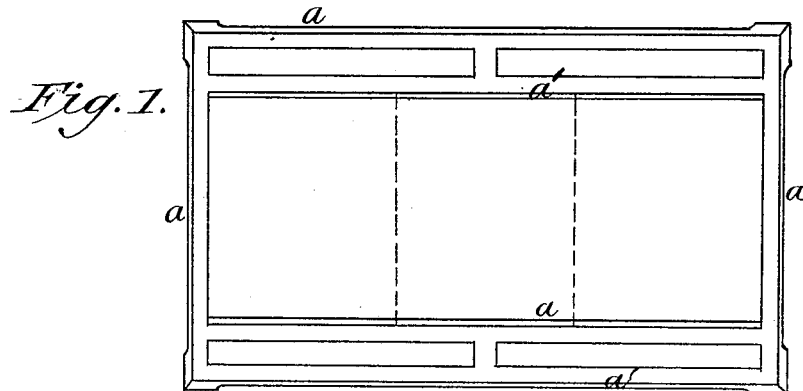
(Model.)

2 Sheets—Sheet 1.

J. L. P. LEMAN.  
DENTAL ARTICULATOR.

No. 386,711.

Patented July 24, 1888.



*Witnesses,*  
*Lucy B. Hill,*  
*Robert Emmett,*

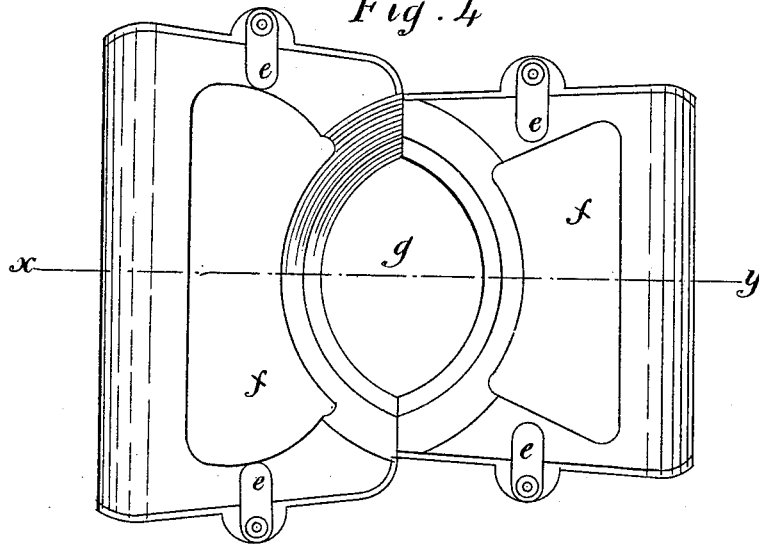
*Inventor,*  
*John L. P. Lemman,*  
*By James L. Norris,*  
*Atty.*

J. L. P. LEMAN.  
DENTAL ARTICULATOR.

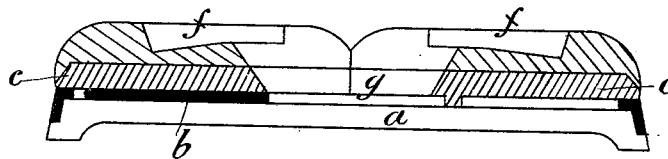
No. 386,711.

Patented July 24, 1888.

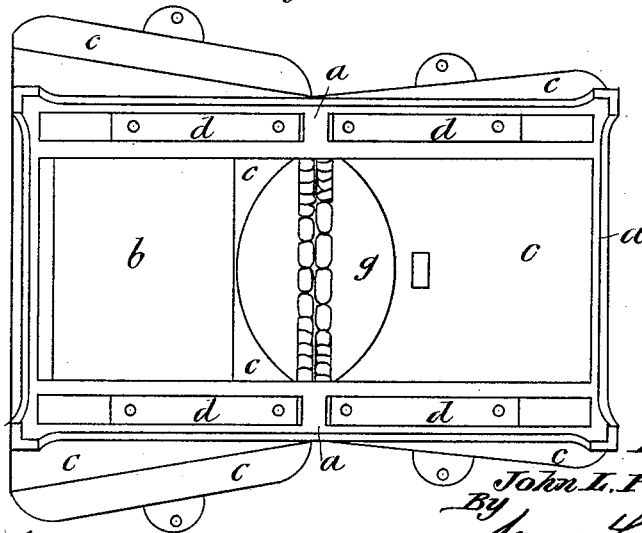
*Fig. 4*



*Fig. 5*



*Fig. 6*



Witnesses.

Reed B. Hills.

Robert Smith.

Inventor.

John L. P. Lemmon.

By

James L. Norris.  
Atty.

# UNITED STATES PATENT OFFICE.

JOHN LOUIS PIGOT LEMAN, OF SURBITON, COUNTY OF SURREY, ASSIGNOR  
TO FRANCIS LEPPER, OF MIDDLESEX, ENGLAND.

## DENTAL ARTICULATOR.

SPECIFICATION forming part of Letters Patent No. 386,711, dated July 24, 1888.

Application filed April 3, 1888. Serial No. 269,490. (Model.) Patented in England March 5, 1888, No. 3,361.

*To all whom it may concern:*

Be it known that I, JOHN LOUIS PIGOT LEMAN, a subject of the Queen of Great Britain, residing at 18 Claremont Road, Surbiton, in the county of Surrey, England, dentist, have  
5 invented a new and useful improved articulator or apparatus for holding in position models used in dentistry during the building up or making of sets of artificial teeth, (for which I  
10 have obtained a patent in Great Britain, No. 3,361, dated March 5, 1888,) of which the following is a specification.

This invention has for its object to provide novel, efficient, and simple means for obtaining  
15 the true bite of the mouth in the manufacture of artificial teeth, whereby the operation is greatly facilitated and much time and labor to the dentist are saved in the process of properly fitting artificial teeth to the plates or casts of  
20 the gums and teeth, which plates or casts are made from impressions in the usual manner.

The invention also has for its object to provide a novel articulator, in which the two plates or casts can be moved to and from each other  
25 and the insides of the plates or casts can be conveniently inspected, which is far more satisfactory than where the exterior only of the teeth can be viewed, in that from the inside the angles of contact of the teeth can be clearly  
30 seen and adjusted.

The objects of my invention I accomplish by the apparatus hereinafter described and claimed, reference being made to the accompanying drawings, in which—

35 Figure 1 is a detail top plan view of the supporting base of the dental articulating apparatus; Fig. 2, a side view of the same; Fig. 3, a top plan view showing the sliding frames applied to the base prior to the application of  
40 the plaster for holding the plates or casts of the gums and teeth; Fig. 4, a top plan view showing the plaster applied over the sliding frames; Fig. 5, a longitudinal sectional view showing the plaster cut away to view the inside surfaces of the teeth and gums; and Fig.  
45 6, a bottom plan view of Fig. 5, showing the position of the teeth and the manner of inspecting the interior thereof.

In order to enable those skilled in the art to  
50 make and use my invention, I will now de-

scribe the same in detail, referring to the drawings, where—

The letter *a* indicates a rectilinear base-frame, preferably having feet to rest on a table and provided at each side with longitudinal slots  
55 or grooves *a'*, those at one side being parallel to those at the other. The sliding frames *c c* are dished, as in Fig. 3, for receiving the plaster-of-paris to hold the plates or casts of the mouth or teeth and gums, and each frame  
60 is provided with slides or lugs *d*, fitting in and adapted to move along the slots or grooves *a'*, for connecting the frames with the base and permitting them to be moved to and from each other thereupon. The inner adjacent edges of  
65 the frames are cut away to form segmental recesses, as is clearly shown in Fig. 3, and on the base *a*, beneath the frame *c*, is arranged a sliding horizontal plate, *b*, suitably supported so that it can be moved back and forth to bring  
70 it directly under the opening *g*, formed by the recessed edges of the sliding frames *c*, as shown in Fig. 3, or away from said opening *g*, to expose the latter, as shown in Figs. 5 and 6. The sliding frames are shown in Fig. 3 as provided  
75 with curved and straight ribs for the purpose of stiffening the plates composing such frames, and also to keep the plaster, *f*, applied thereupon from shifting laterally. To the opposite edges of the frames are pivoted buttons *e*,  
80 which can be turned over upon the plaster, *f*, after the latter hardens, as in Fig. 4, to hold the same down in position. I prefer to provide a depending lip, *a''*, on one of the frames  
85 *c*, to limit the movement of the plate *b* and stop it in the correct position under the opening *g*.

In preparing the apparatus for use, I adjust the plate *b* under the opening *g*, as shown in Fig. 3, and slide the frames *c* toward each other until they meet, after which the plastic  
90 composition *f*, composed of wet plaster-of-paris, is poured on the frames and fills the said opening *g*. The plates or casts of the gums and teeth are then placed on the plaster, and when the latter sets the plates or casts are held,  
95 then the plate *b* is moved away from the opening *g*, and the plaster is cut out of such opening to provide for viewing the position of the teeth from the inside of the mouth—that is, the inner surfaces and angles of contact of the  
100

teeth. The frames *c* are manipulated or adjusted relatively to each other in a horizontal plane on the supporting-base to obtain the proper bite of the teeth or mouth, after which  
5 the teeth are fixed in their plates in the usual manner practiced by dentists.

The supporting-base, horizontally-sliding frames, and movable plate are preferably made of metal; but any material suitable for  
10 the conditions required can be used.

Having thus described my invention, what I claim is—

1. The combination, in a dental articulator,  
15 of a supporting-base, horizontally-sliding frames movable thereupon to and from each

other, and a plate movable on the base beneath the frames, substantially as described.

2. The combination, in a dental articulator, of a supporting-base, horizontally-sliding frames movable thereupon, and each having a  
20 recessed edge and locking-buttons for holding the plaster, and an adjustable plate located on the base beneath the frames, substantially as described.

JOHN LOUIS PIGOT LEMAN.

Witnesses:

GEORGE S. DOWNING,  
8 *Quality Court, London, W. C.*

WALTER J. SKERTEN,  
17 *Gracechurch Street, London, E. C.*