

H. A. GOLLOBIN & N. A. BORNSTEIN.

REMOVABLE BRIDGE FOR TEETH.

APPLICATION FILED DEC. 11, 1911.

1,062,233.

Patented May 20, 1913.

Fig. 1.

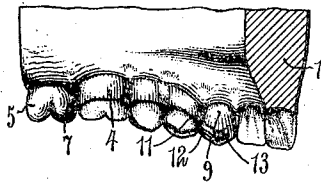


Fig. 3.

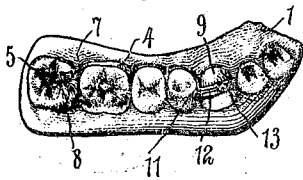


Fig. 2.

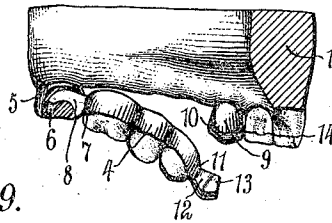


Fig. 9.

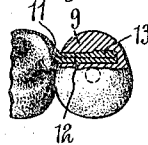


Fig. 5.

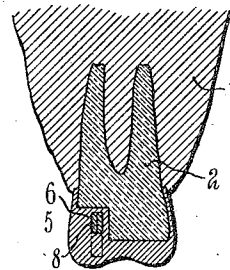


Fig. 4.

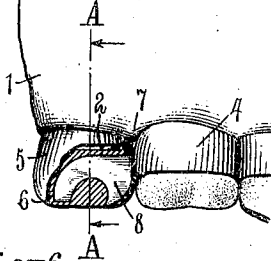


Fig. 10.

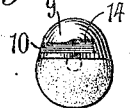


Fig. 6.

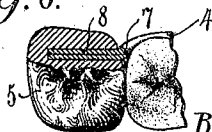


Fig. 11.

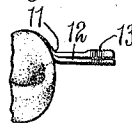


Fig. 8.

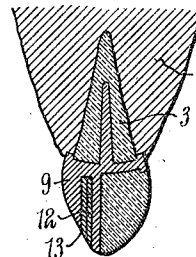


Fig. 7.

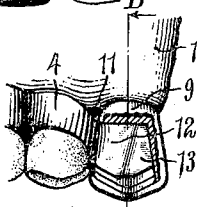
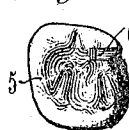


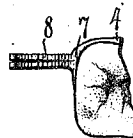
Fig. 12.



Witnesses:

Harry J. Fleischer
F. George Barry

Fig. 13.



Inventors:

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Newton A. Bornstein
by their attorneys
Arnold & Ward

UNITED STATES PATENT OFFICE.

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REMOVABLE BRIDGE FOR TEETH.

1,062,233.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, HARRY A. GOLLOBIN, a subject of the Russian Empire, and NEWTON A. BORNSTEIN, a citizen of the United States, and residents of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Removable Bridges for Teeth, of which the following is a specification.

This invention relates to certain improvements in bridges for teeth and has more particularly for its object to provide means for attaching removable bridges to abutments in the mouth in such a manner that the bridges will be held very rigidly by frictional engagement with the abutments.

A practical embodiment of our invention is represented in the accompanying drawings, in which—

Figure 1 represents a section through the roof of a mouth with a bridge in its position therein, Fig. 2 is a similar view with the bridge partly removed, the abutment hinge member being broken away to more clearly illustrate the interlocking of the bridge hinge member therewith, Fig. 3 is an inverted plan view of the parts shown in Fig. 1, Fig. 4 is an enlarged detail side view, partly in section showing the hinge connection between the bridge and abutment, Fig. 5 is a transverse section taken in the plane of the line A—A, of Fig. 4, Fig. 6 is an enlarged detail plan view partly in section of the hinge connection between the bridge and abutment, Fig. 7 is an enlarged detail side view partly in section showing the connection between the free end of the bridge and its abutment, Fig. 8 is a section taken in the plane of the line B—B of Fig. 7, Fig. 9 is an enlarged detail view partly in plan and partly in section showing the connection between the free end of the bridge and its abutment, Fig. 10 is a plan view of the abutment showing the recess for receiving the free end of the bridge, Fig. 11 is a plan view showing the split tongue at the free end of the bridge, Fig. 12 is a plan view of the abutment showing the recess for receiving the hinge end of the bridge, and Fig. 13 is a plan view of the split tongue at the hinge end of the bridge.

The portion of the mouth represented in the drawings is denoted by 1 and the teeth which form the abutments for the bridge are denoted by 2 and 3. The bridge of teeth for filling the space between the abutments is denoted by 4. The abutment hinge member 5 is provided with a curved undercut recess 6. The hinge member 7 constituting the inner end of the bridge 4 is provided with a curved split tongue 8 which projects lengthwise of the bridge and is arranged to have an interlocking and frictional engagement with the walls of the recess 6 in the hinge abutment member 5 when the bridge is inserted into its position within the mouth. The other abutment 3 is provided with a member 9 having a recess 10 open through the end of the same. The free end of the bridge 4 constitutes a member 11 having a split tongue 12 which projects lengthwise of the bridge and is arranged to have a frictional engagement with the walls of the recess 10 in the abutment member 9 when the bridge is in position within the mouth.

To insure a tight fit of the bridge when inserted into position within the mouth, one branch of the split tongue 12 is provided with a wedge shaped outer surface 13 arranged to coact with a wedge-shaped enlargement 14 of the recess 10 for the purpose of crowding the bridge into its position. This wedging action between the abutment member and bridge member serves to hold the abutment member against being forced away from the bridge member.

It will be seen that a means for attaching removable bridges to abutments in the mouth constructed substantially as herein described is extremely simple and easily manipulated, the strength required to remove the bridge being readily regulated by increasing and decreasing the frictional engagement of the split tongues with the walls of their respective recesses, by spreading to a greater or lesser extent the branches of the split tongues.

What we claim is:—

1. Means for attaching a removable bridge to an abutment in the mouth comprising an abutment member having a recess in the crown portion of the tooth and a bridge member having a flat split tongue of

resilient material, the branches of the tongue being arranged to be forced out of their normal position to enter said recess and frictionally engage the walls thereof.

- 5 2. Means for hinging a removable bridge to an abutment in the mouth comprising an abutment hinge member having an undercut recess in the crown portion of the tooth and
10 a bridge hinge member having a flat split tongue of resilient material, the branches of the tongue being arranged to be forced out of their normal position to enter the said recess and having an interlocking and frictional engagement with the walls thereof.
15 3. Means for attaching a removable bridge to abutments in the mouth comprising abutment members having recesses in the crown portions of the teeth and bridge
20 members having flat split tongues of resilient material, the branches of the tongue of one bridge member being arranged to be forced out of their normal position to enter the recess of one abutment member and having an interlocking and frictional engagement
25 therewith and the branches of the tongue of the other bridge member being ar-

ranged to be forced out of their normal position to enter the recess of the other abutment member and frictionally engage the walls thereof.

4. Means for attaching a removable bridge to abutments in the mouth comprising abutment members having recesses in the crown portions of the teeth and bridge
35 members having flat split tongues, one arranged to have an interlocking and frictional engagement with the walls of the recess of one abutment member and the other
40 arranged to have a frictional engagement with the walls of the recess of the other abutment member, the last-named tongue and recess also having a wedge connection.

In testimony that we claim the foregoing as our invention, we have signed our names
45 in presence of two witnesses, this seventh day of December 1911.

HARRY A. GOLLOBIN.
NEWTON A. BORNSTEIN.

Witnesses:

F. GEORGE BARRY,
C. S. SUNDGREN.

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