

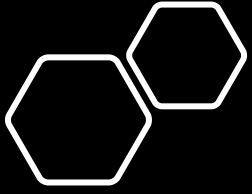
New concept in Jaw Implant

Dr Wael H Khalil
August 2022

US PATENT

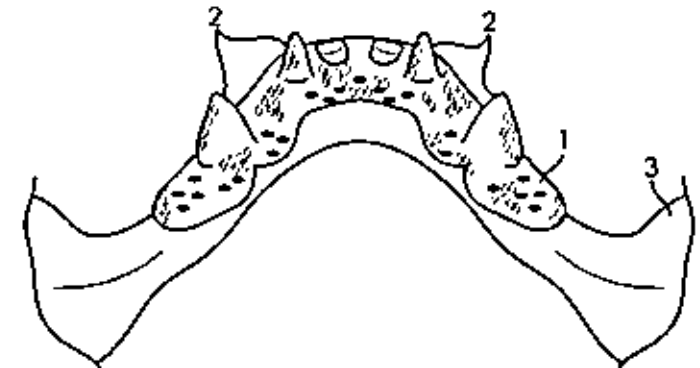
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#10,925,695 B2



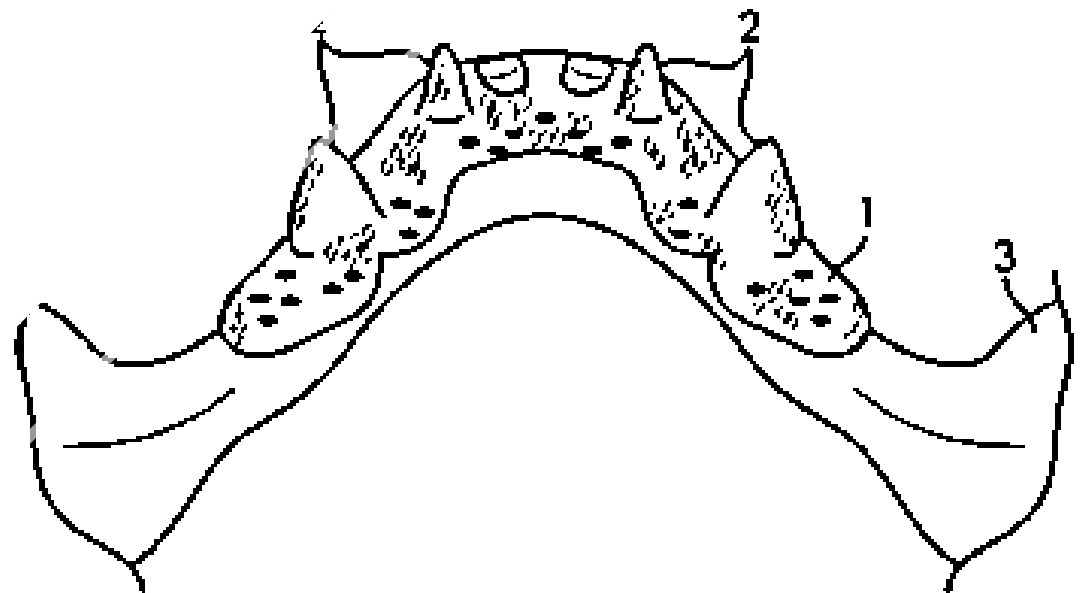
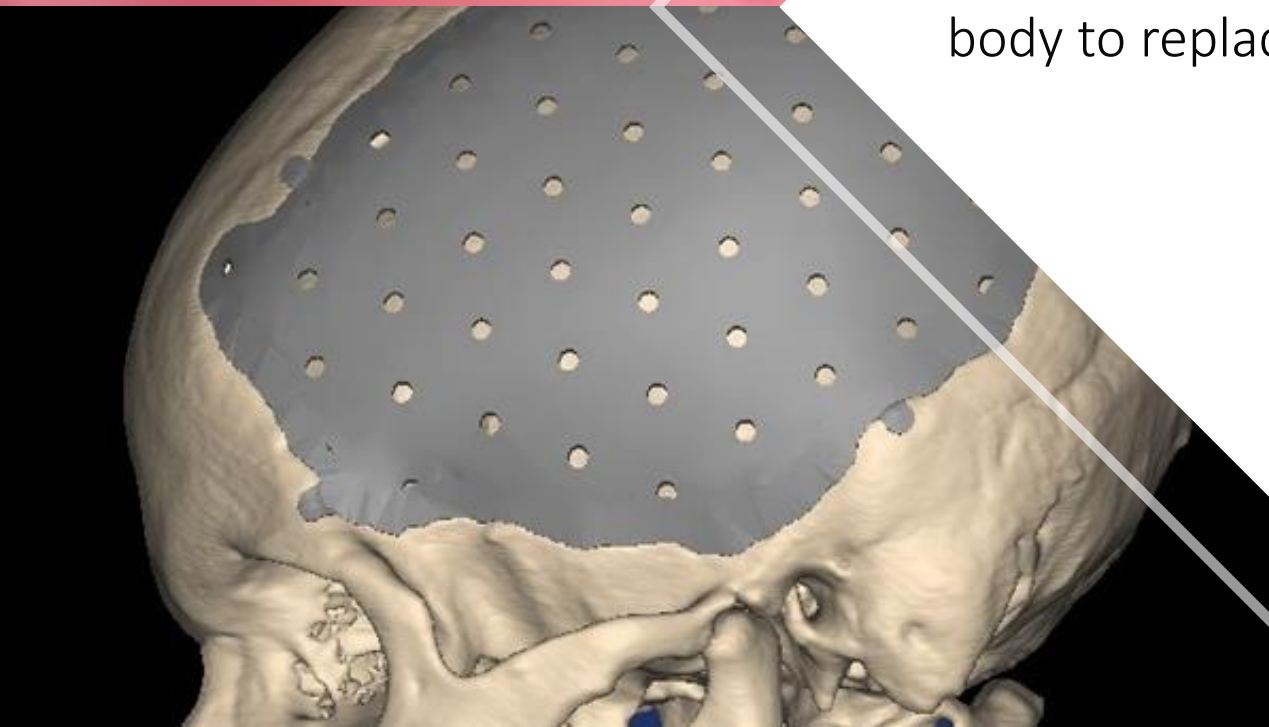
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Medical device inserted in the
body to replace missing part



TEETH LOSS

Teeth loss with **Sufficient** bone

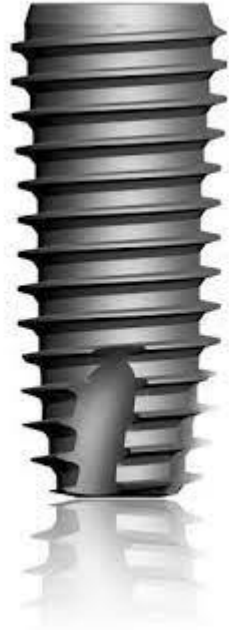
Teeth loss with Insufficient bone

R

L

Teeth Replacement

Enough Bone in the Jaw

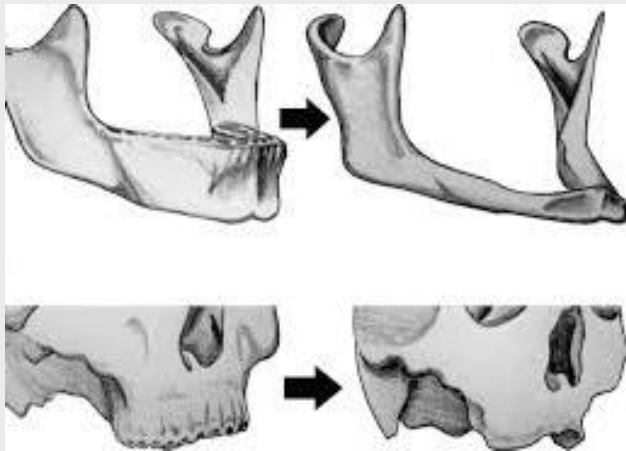




Denture

**Advanced Bone
Reconstructive
Surgery**

**Subperiosteal
Implant**



Teeth Replacement

Enough Bone in the Jaw



Denture

- 1-50% of function
- 2-Additional Bone loss
- 3-Psychological burden



Teeth Replacement

Insufficient Bone in the Jaw



- 1-Time consuming
- 2-Expensive
- 3-Pain and Morbidity
- 4-Risk associated



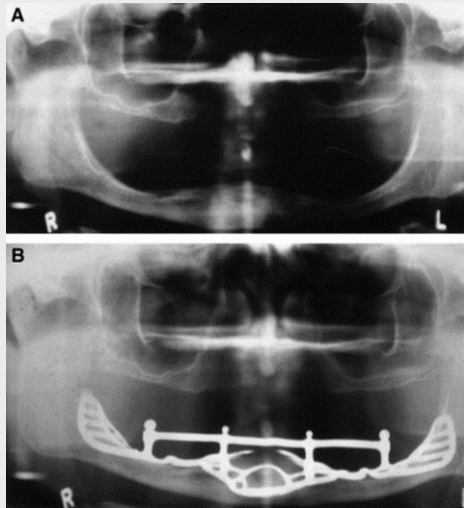
Advanced Bone Surgery

Subperiosteal Implant

- 1-Failure
- 2-Additional Bone loss
- 3-Infection
- 4-Difficult to fabricate

Failure of
Subperiosteal
Implant

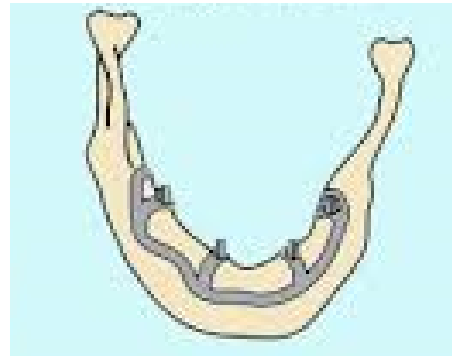
Stiffness of
frame-work
vs bone
elasticity



Teeth Replacement

Insufficient Bone in the Jaw

**Old Approach
to Jaw
Implant**



Weak Joints

Success Factor 1 | **Design Concept**

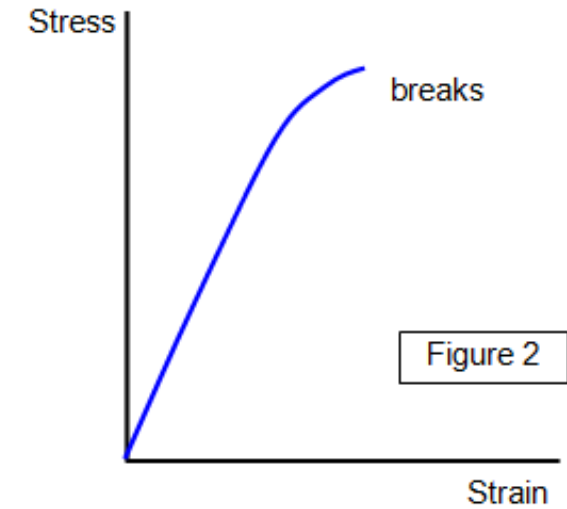
**New Concept for
Jaw Implants**



Stable joint

Success Factor 1 | Material Concept

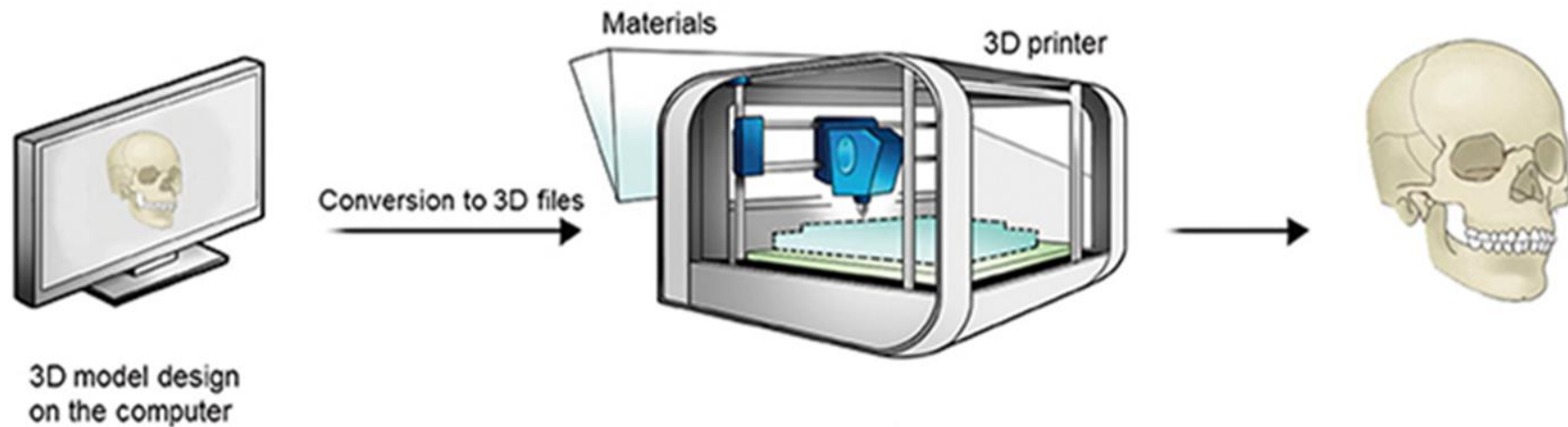
**Elastic
Material**



Stiff Material

Success Factor 1 | Method Concept

**From Manual to
3D Printing
Technology**





More Aesthetic

More Functional



Better Quality of Life