

ORTODONTİK ANOMALİLERİN ÖNLENMESİNDE DİŞ HEKİMİNİN GÖREVLERİ

Doç.Dr. Erhan ÖZDİLER
A.Ü.DİŞ HEKİMLİĞİ FAKÜLTESİ
ORTODONTİ ANABİLİM DALI

Hareketli Aygıtlar

Prof.Dr.F.ERHAN ÖZDİLER

Ankara - 2005



ORTODONTİDE HEDEF



→ SÜREKLİ DİŞ KAVSİDİR.

ORTODONTİK TEDAVİNİN AMACI

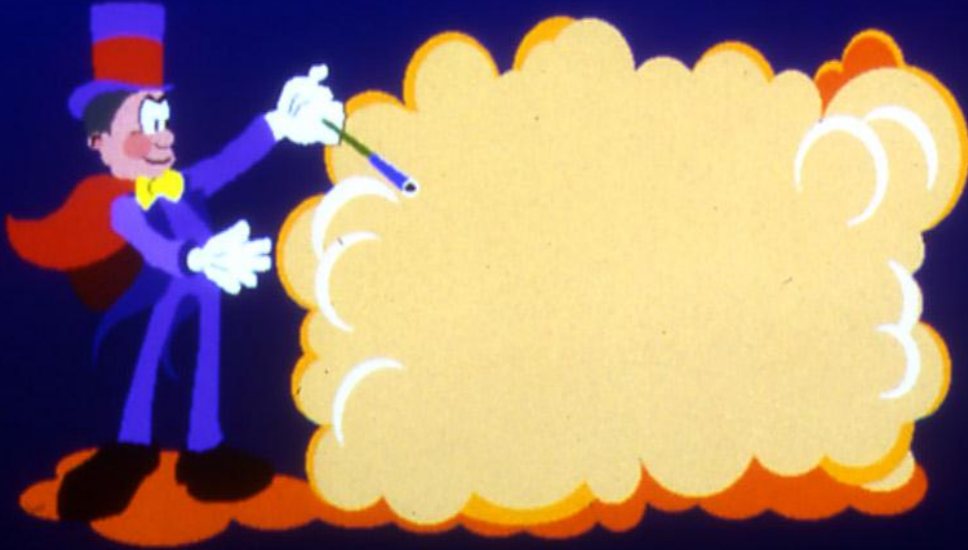
- ANOMALİNİN MEYDANA GELMESİNİ ÖNLEMENİN ,
- ÇIĞNEME , KONUŞMA FONKSİYONLARINI DAHA İYİ DURUMA GETİRMEK ,
- İYİ BİR ESTETİK ve
- ERİŞİLEN DURUMUN KALICI OLMASINI SAĞLAMAKTIR.

KALICI DİŞLERİN SÜRME MEKANİZMALARI

SÜREKLİ KESİCİ DİŞLERİN DİŞ KAVSİNDE DÜZGÜN SIRALANABİLMESİ İÇİN ;

- ÜST ÇENEDE 7 mm. ,
- ALT ÇENEDE 5mm. YERE GEREK VARDIR.
- ⇒ Moorrees, C.F.A. : The Dentition of the Growing Child. Harvard University Press, Cambridge/Mass. 1959.

SÜREKLİ KESİCİ DİŞLER İÇİN
GEREKLİ OLAN YER NASIL
SAĞLANMAKTADIR ?

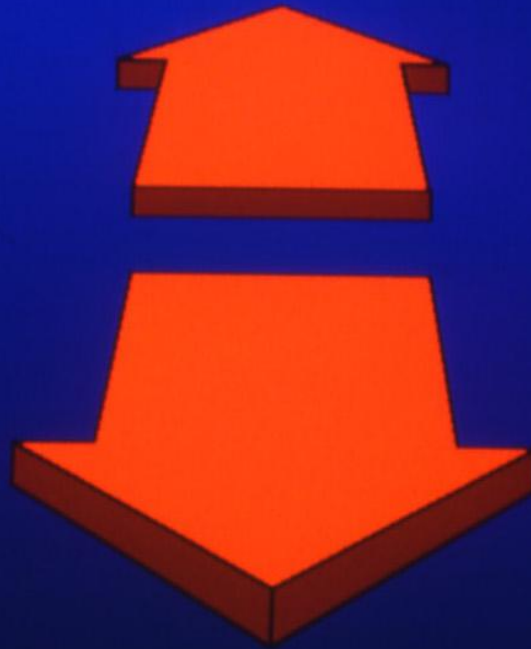


**1. SÜT KESİCİ DİŞLERİ
BÖLGESİNDEKİ
DİASTEMALAR :**

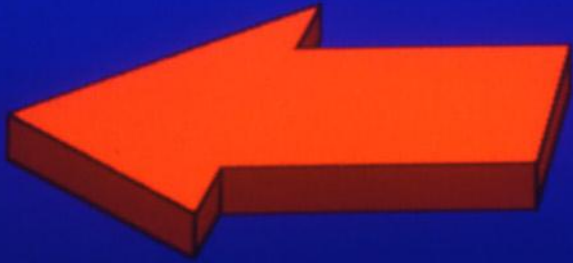
ÜST ÇENE : 2.6 mm.

ALT ÇENE : 1.1 mm.

2. DİŐ KAVSI UZUNLUĐUNUN ARTIŐI

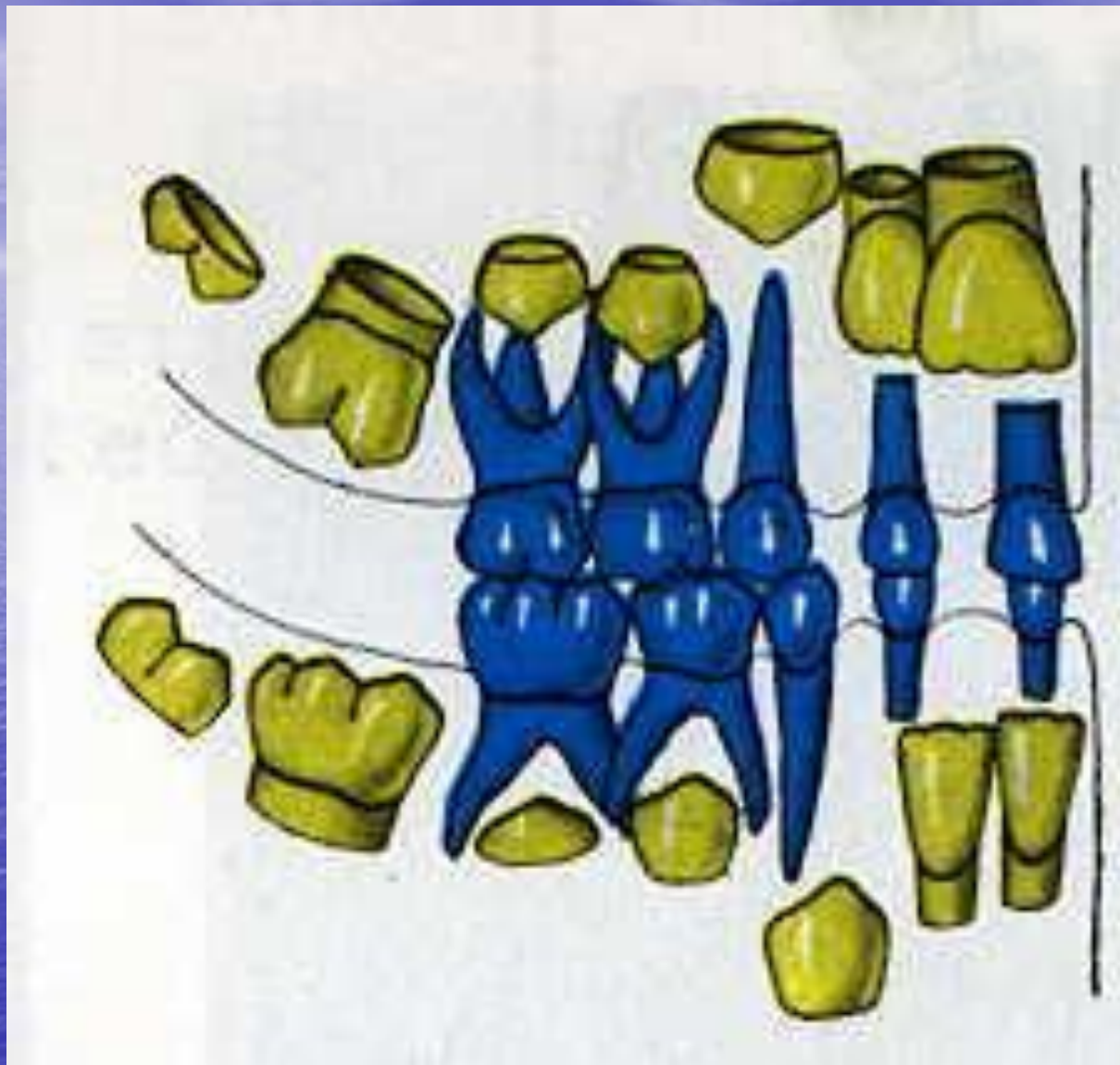


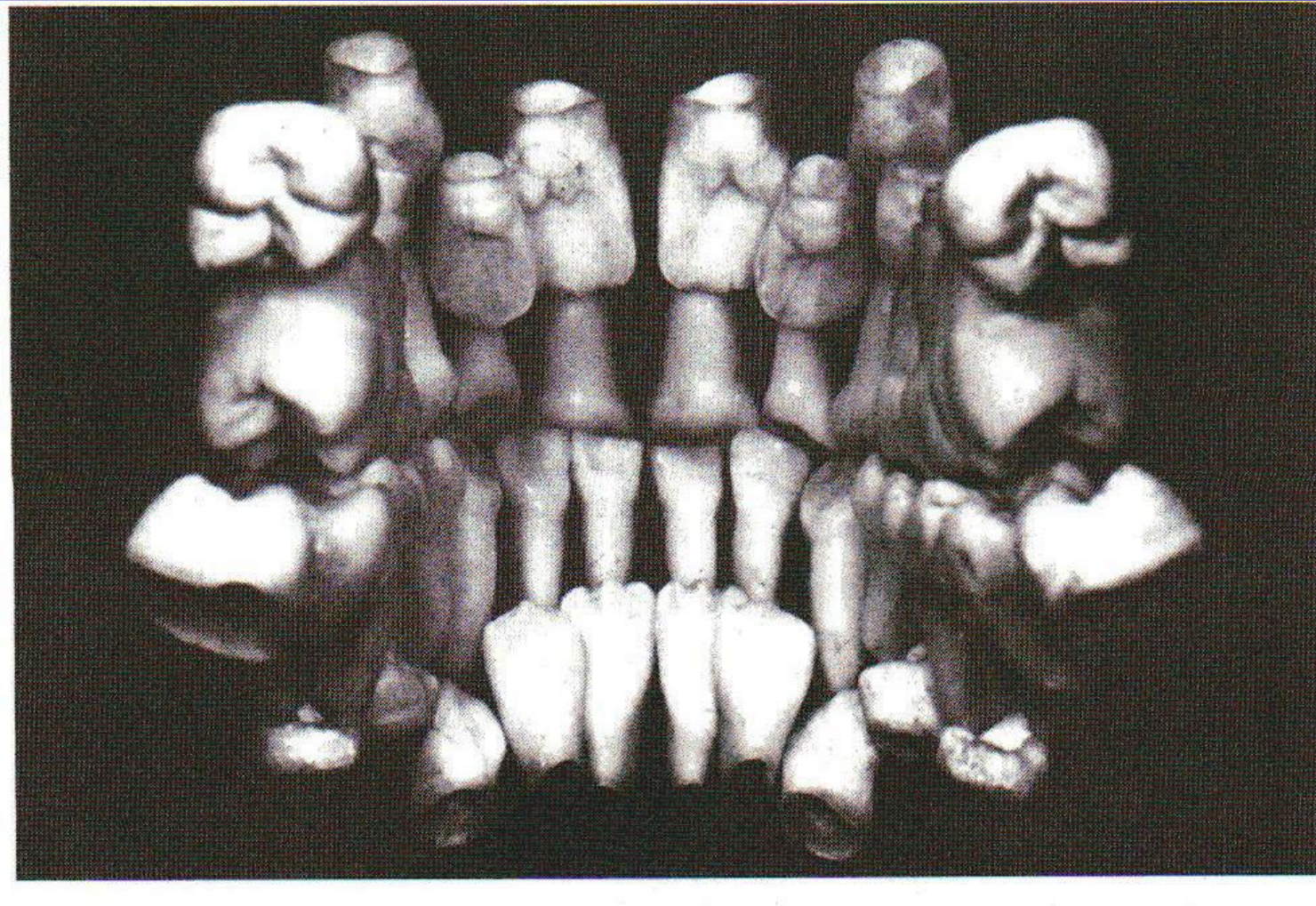
3. DİŐ KAVSİ GENİŐLİĐİNİN ARTIŐI

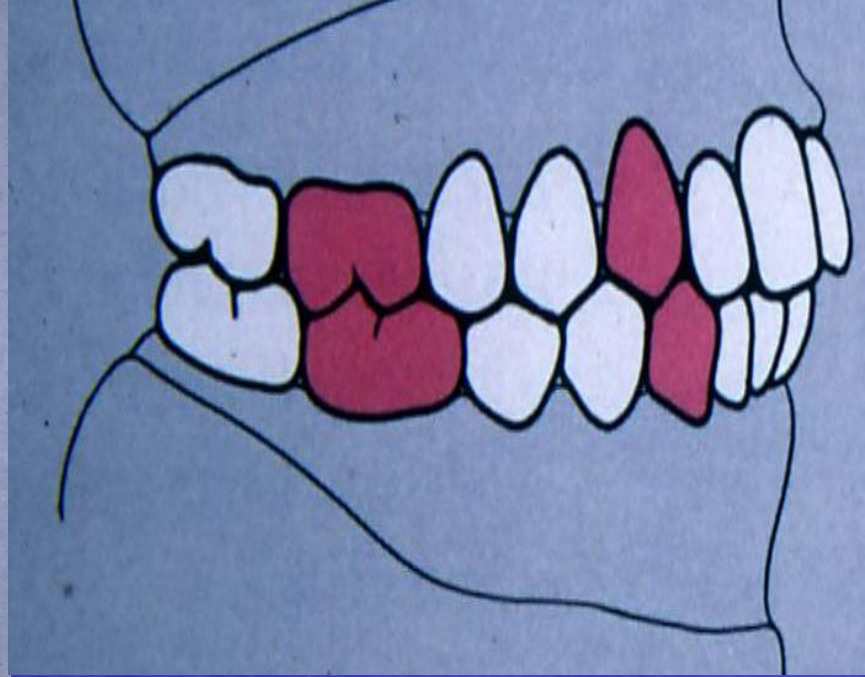
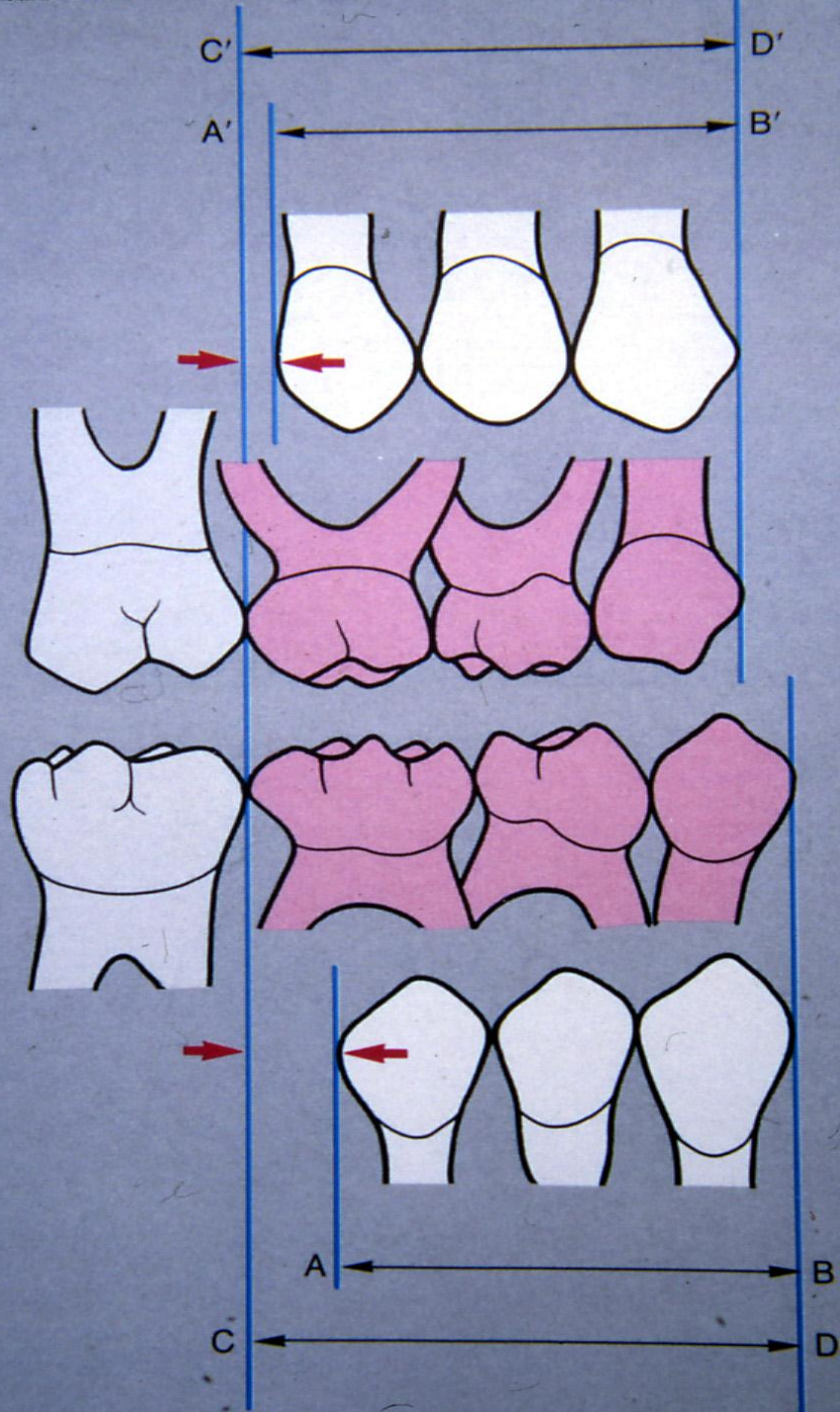


KL I OKLÜZYONA ULAŞILMASI ;

- MESİYALİZASYON ,
- TRANSLASYON ve
- LEEWAY BOYUTU kullanılması ile gerçekleşir.

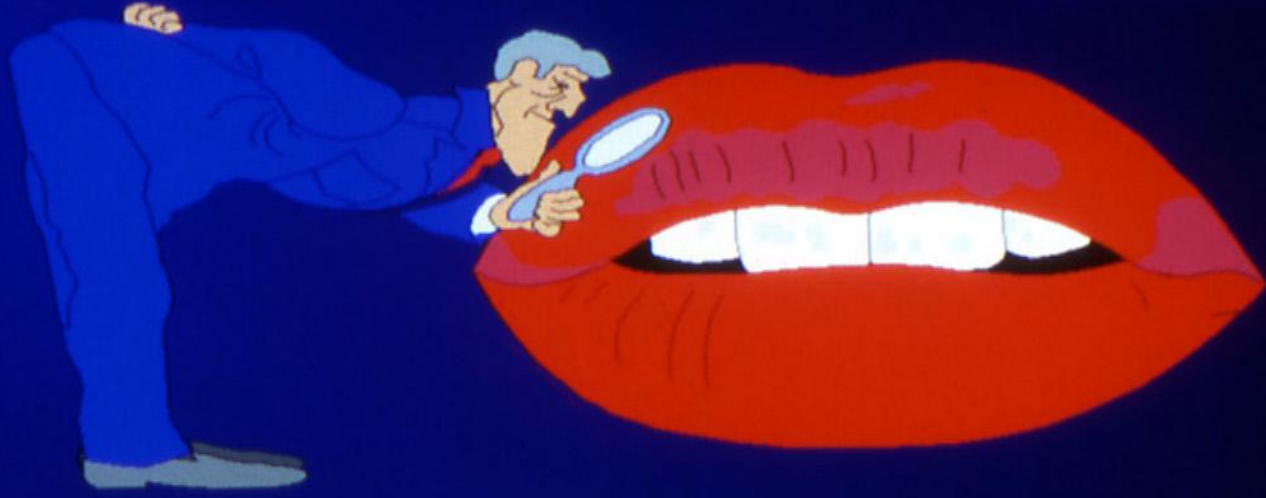






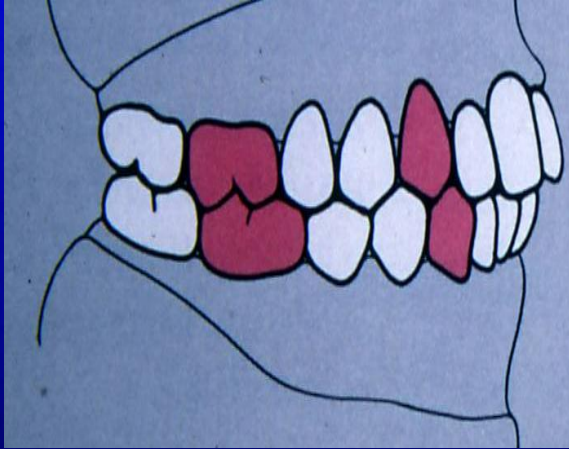
KL I OKLUZYON

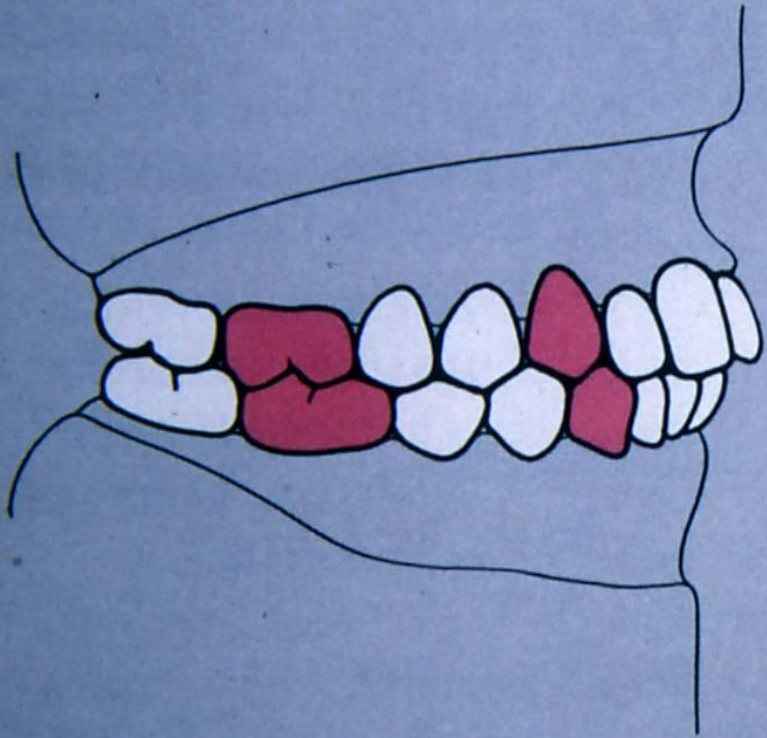
LEWAY YER REZERVİ

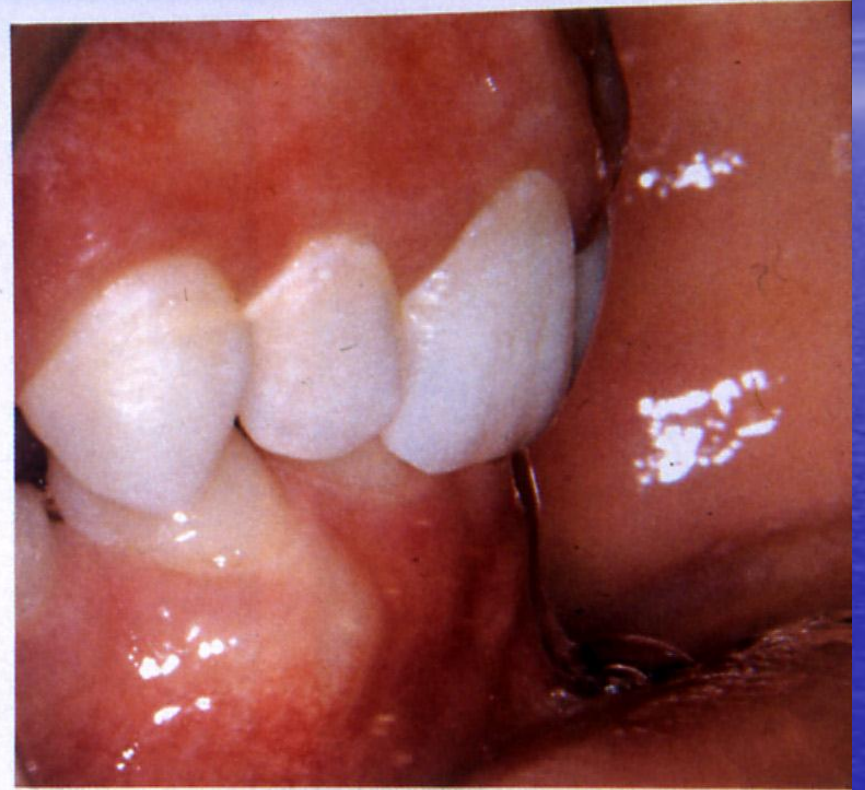
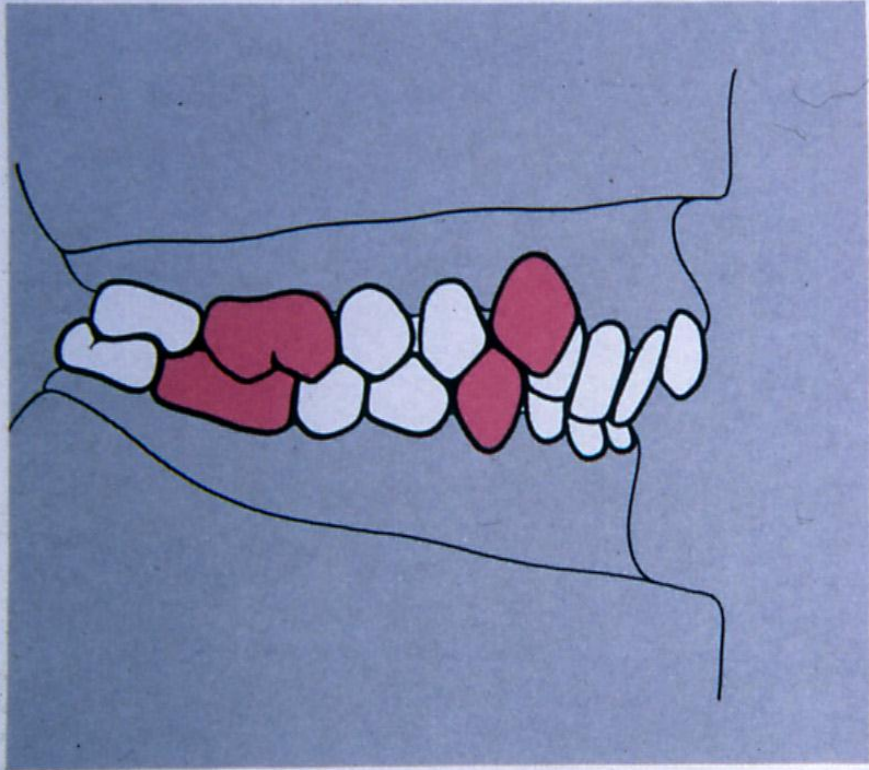


**SÜT DIŞ KAVSİNDE ,
VAKALARIN % 65 -70 'İNDE
SÜT KANİNLERİ İLE SÜT
1.MOLARLARI ARASINDA
MAYMUN DİASTEMALARI
BULUNMAKTADIR.**

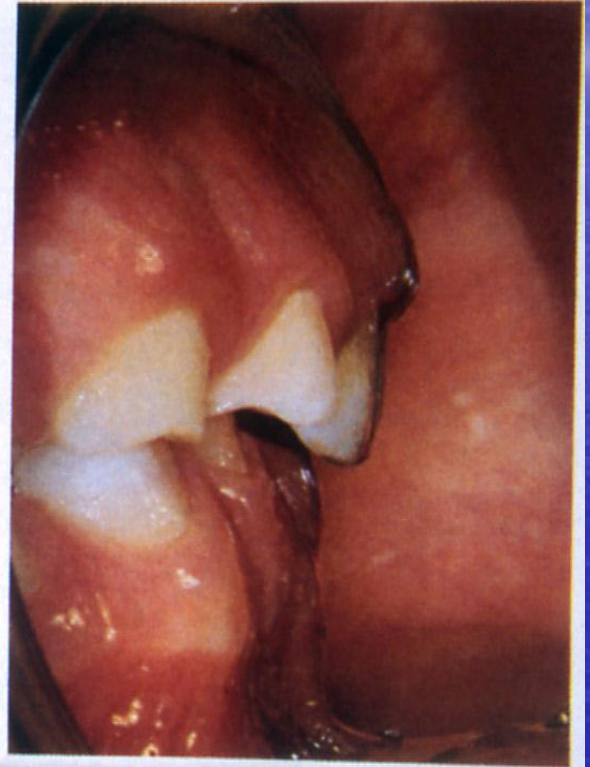
ALTI YAŞ DIŞLERİ OKLÜZYONDA KİLİT ROLÜ OYNAR



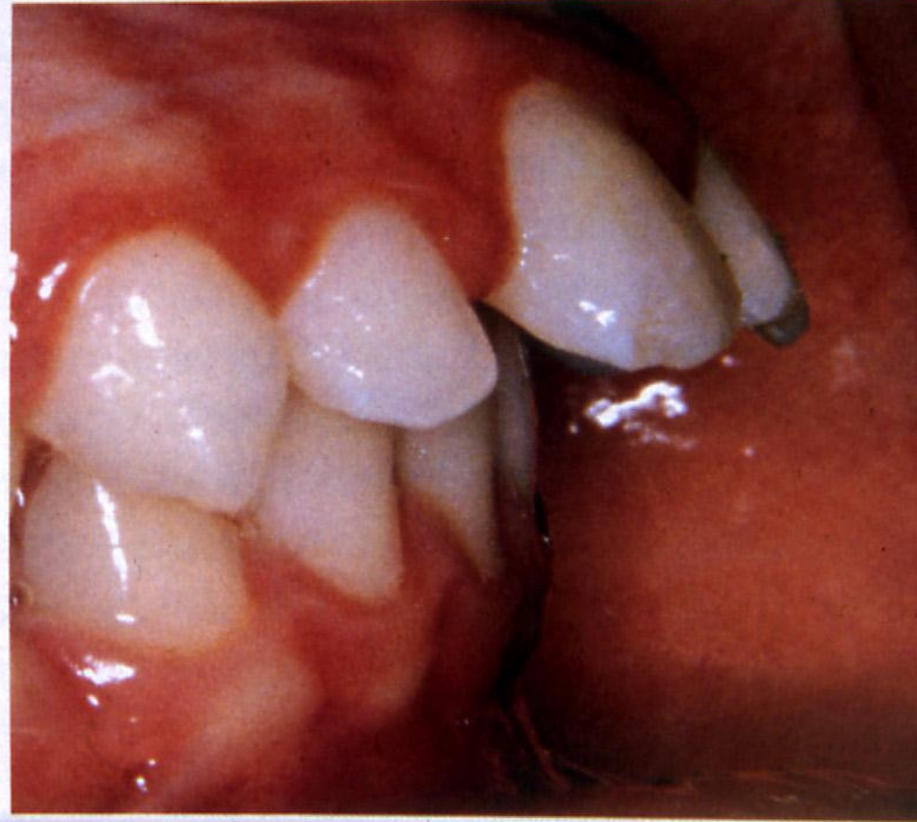
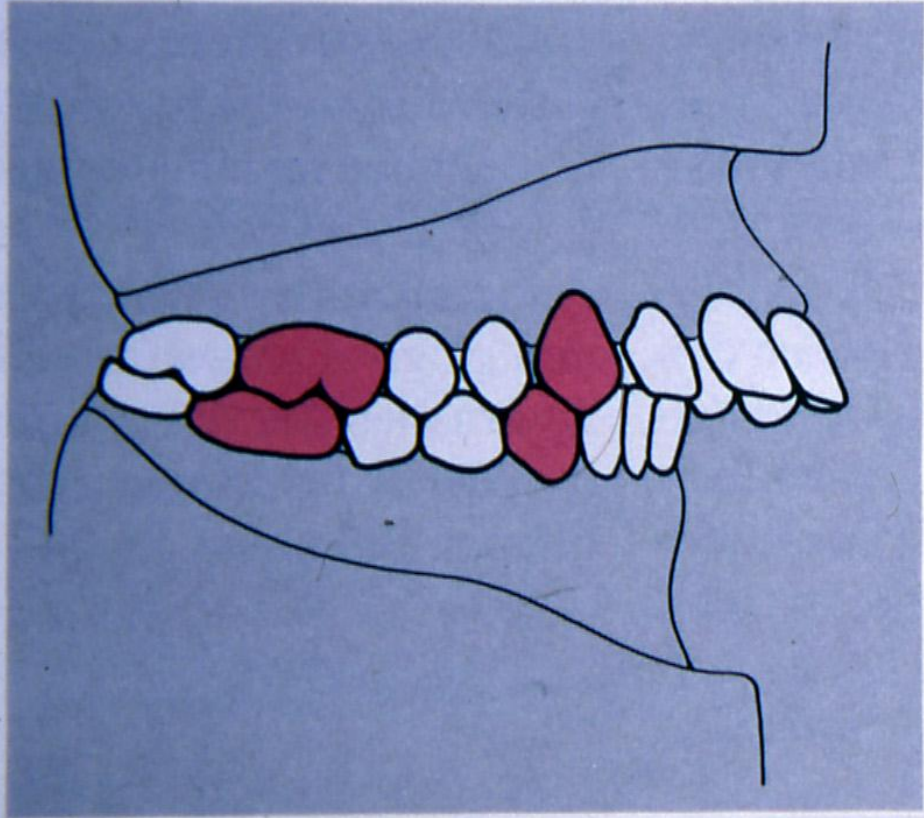












ORTODONTİDE DİŞ ÇEKİMİNE
KARAR VEREBİLMEK İÇİN NE
YAPMALIYIZ ?



**ORTODONTİDE DİŞ ÇEKİMİNE
KARAR VEREBİLMEK İÇİN ;**

- ✓ MODEL ANALİZİ ve**
- ✓ SEFALOMETRİK ANALİZ
YAPILMALIDIR .**

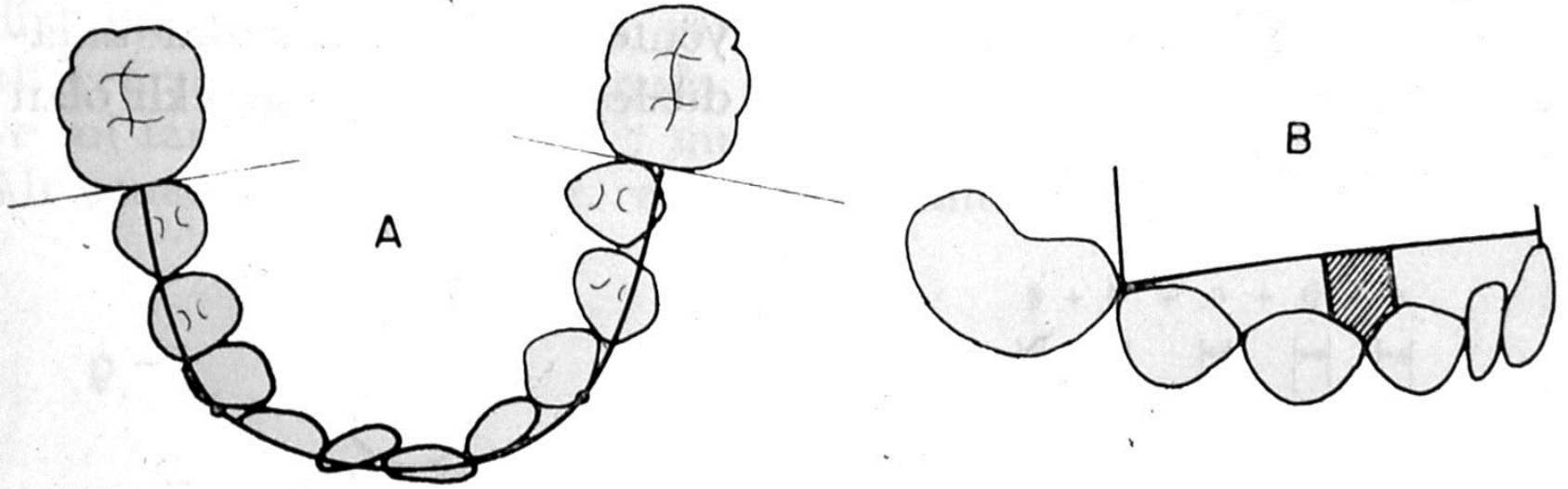
MODEL ANALİZİ

3 KAVRAM SÖZ
KONUSUDUR :

- MEVCUT ARK BOYU
- GEREKLİ ARK BOYU
- ARK BOYU SAPMASI



Mevcut Ark Boyu



Şekil 26. Messing tel ile elde bulunan diş kavsi uzunluğunun ölçülmesi



GEREKLİ ARK BOYU

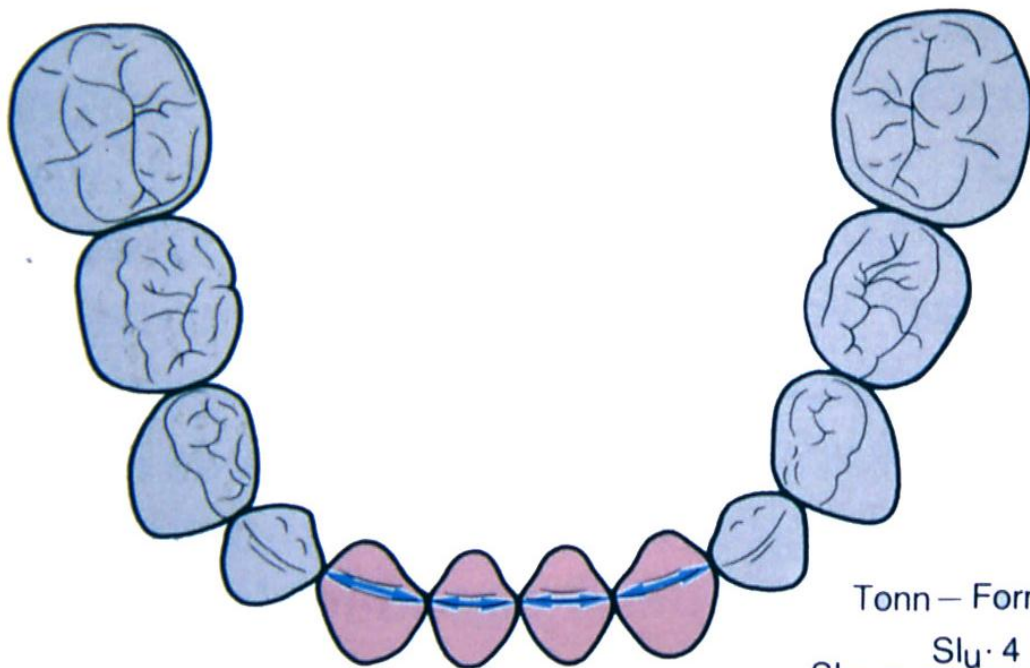


KANİN ve PREMOLAR GENİŞLİKLERİNİN HESAPLANMASI

RÖNTGEN METODU

- **UZUN KON TEKNİK : 0.2 mm.**
- **KISA KON TEKNİK :**
 - ALT ÇENE İÇİN 0.6 mm.**
 - ÜST ÇENE İÇİN 0.5 mm.**

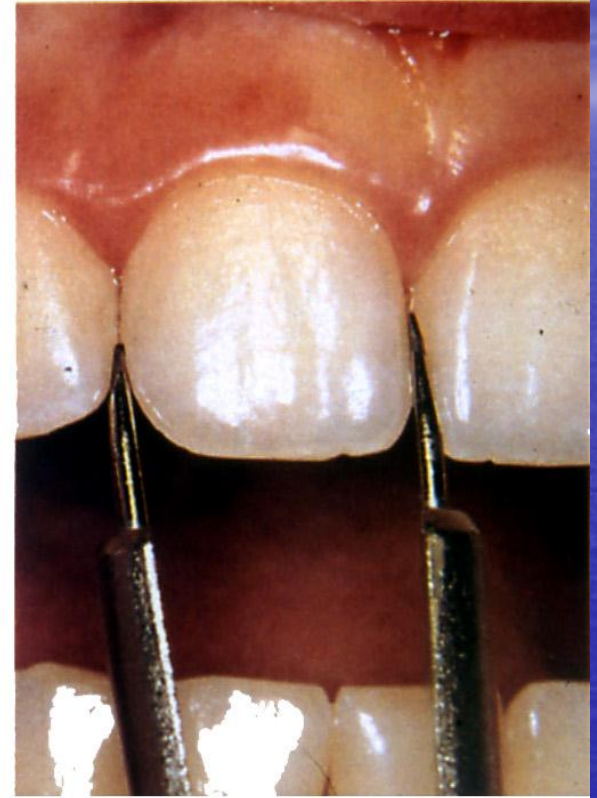
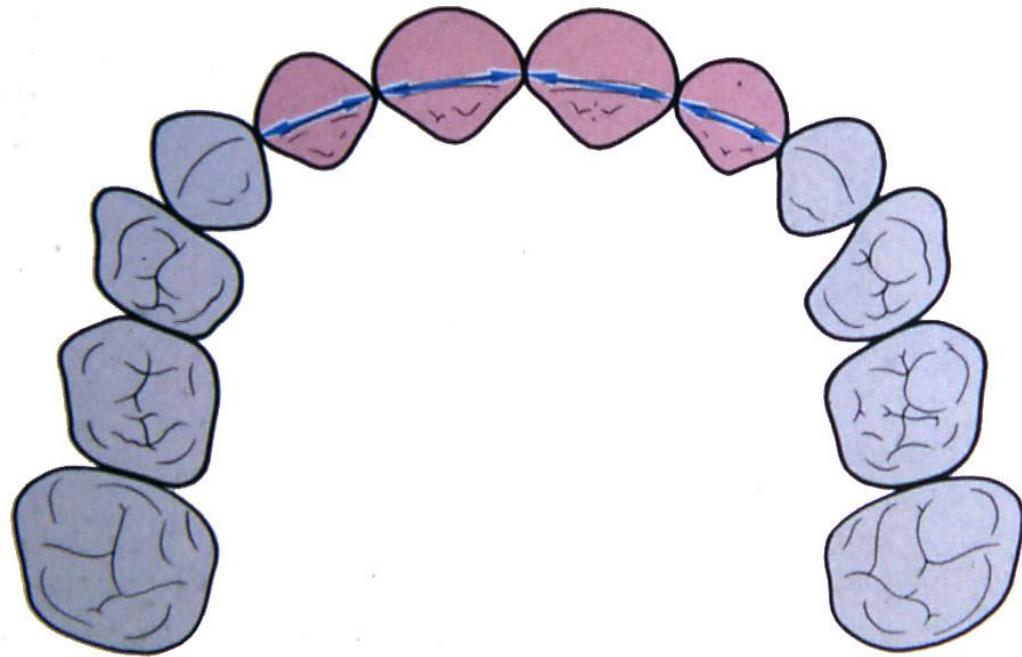
KARIŐIK DIŐLENME DÖNEMİNDE MODEL ANALİZİ



Tonn-Formel

$$S_{lo} = \frac{S_{lu} \cdot 4}{3} + 0,5$$





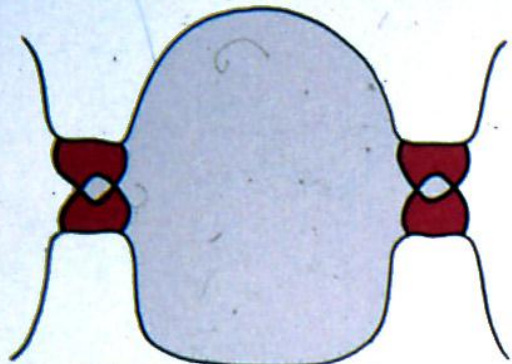
ALT ÇENE İÇİN MOYERS TABLOSU

	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0
% 95	21.1	21.4	21.7	22.0	22.3	22.6	22.9	23.2	23.5	23.8	24.1	24.4
% 85	20.5	20.8	21.1	21.4	21.7	22.0	22.3	22.6	22.9	23.2	23.5	23.8
% 75	20.1	20.4	20.7	21.0	21.3	21.6	21.9	22.2	22.5	22.8	23.1	23.4
% 65	19.8	20.1	20.4	20.7	21.0	21.3	21.6	21.9	22.2	22.5	22.8	23.1
% 50	19.4	19.7	20.0	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.4	22.7
% 35	19.0	19.3	19.6	19.9	20.2	20.5	20.8	21.1	21.4	21.7	22.0	22.3
% 25	18.7	19.0	19.3	19.6	19.9	20.2	20.5	20.8	21.1	21.4	21.7	22.0
% 15	18.4	18.7	19.0	19.3	19.6	19.8	20.1	20.4	20.7	21.0	21.3	21.6
% 5	17.7	18.0	18.3	18.6	18.9	19.2	19.5	19.8	20.1	20.4	20.7	21.0

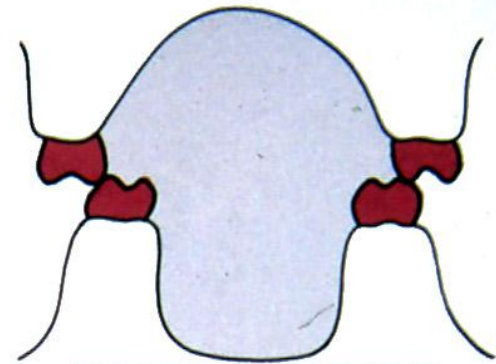
ÜST ÇENE İÇİN MOYERS TABLOSU

	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0
% 95	21.6	21.8	22.1	22.4	22.7	22.9	23.2	23.5	23.8	24.0	24.3	24.6
% 85	21.0	21.3	21.5	21.8	22.1	22.4	22.6	22.9	23.2	23.5	23.7	24.0
% 75	20.6	20.9	21.2	21.5	21.8	22.0	22.3	22.6	22.9	23.1	23.4	23.7
% 65	20.4	20.6	20.9	21.2	21.5	21.8	22.0	22.3	22.6	22.8	23.1	23.4
% 50	20.0	20.3	20.6	20.8	21.1	21.4	21.7	21.9	22.2	22.5	22.8	23.0
% 35	19.6	19.9	20.2	20.5	20.8	21.0	21.3	21.6	21.9	22.1	22.4	22.7
% 25	19.4	19.7	19.9	20.2	20.5	20.8	21.0	21.3	21.6	21.9	22.1	22.4
% 15	19.0	19.3	19.6	19.9	20.2	20.4	20.7	21.0	21.5	21.5	21.8	22.1
% 5	18.5	18.8	19.0	19.3	19.6	19.9	20.1	20.4	20.7	21.0	21.2	21.5

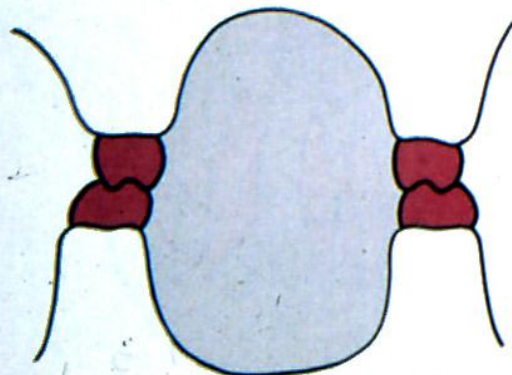
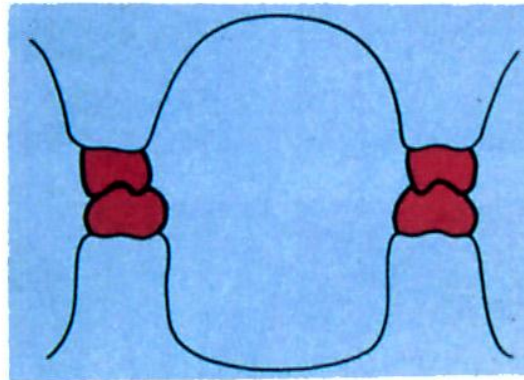
ARK BOYU SAPMASI



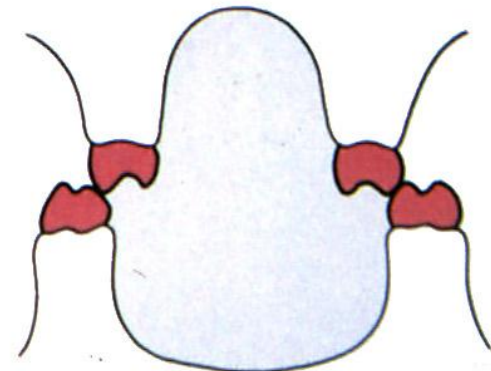
Kopfbiss



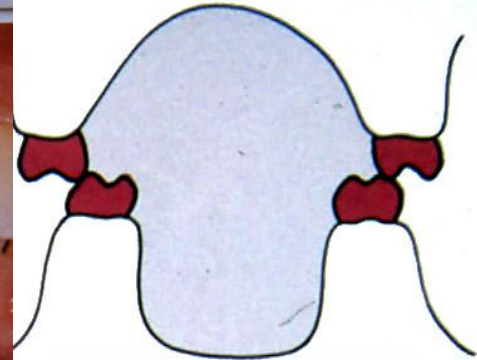
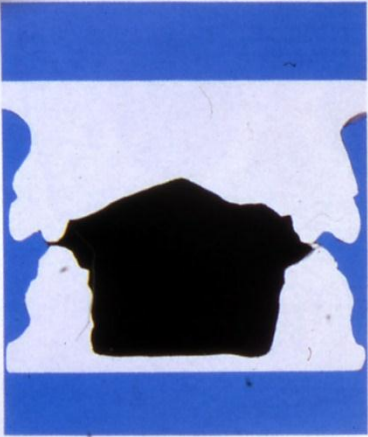
bukcale Nonokklusion



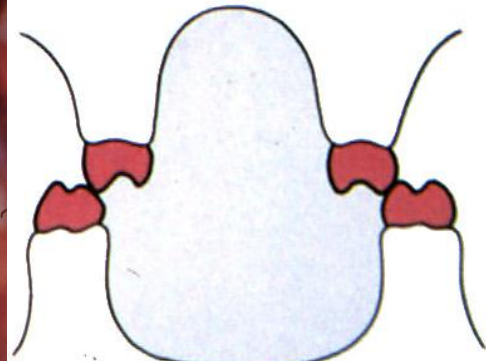
Kreuzbiss



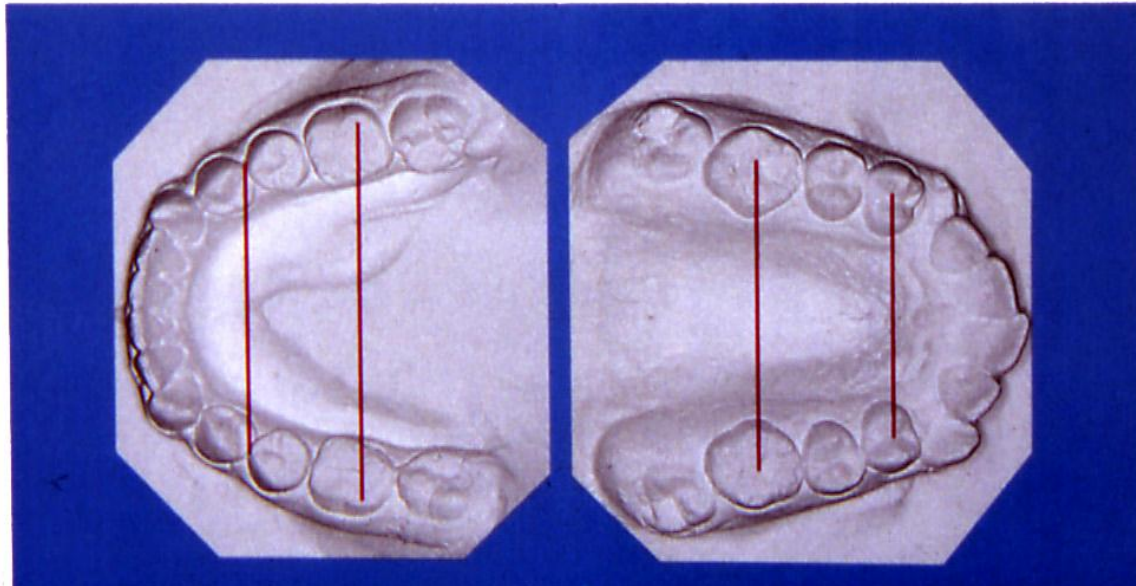
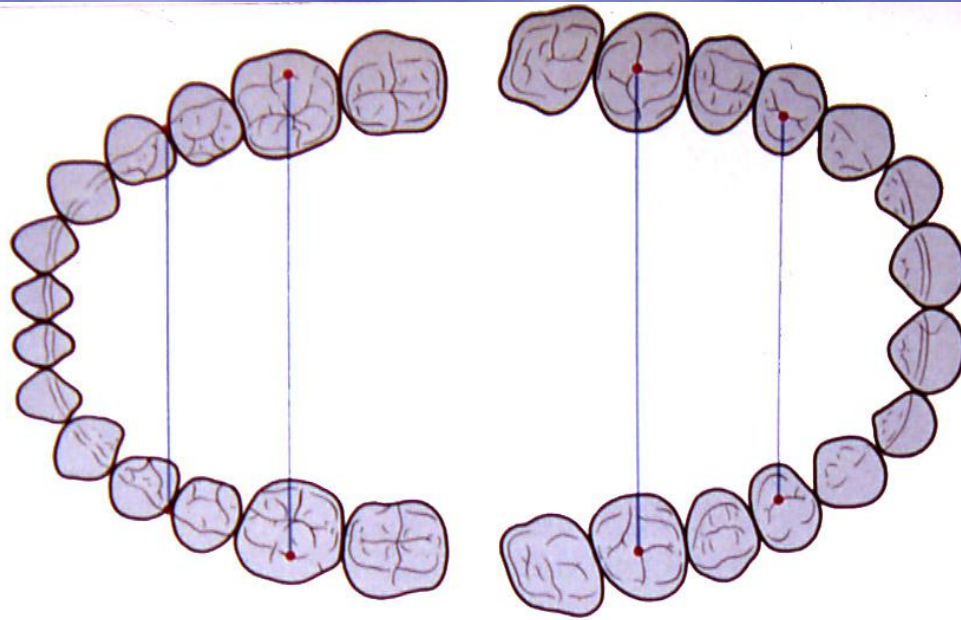
linguale Nonokklusion



bukkale Nonokklusion



linguale Nonokklusion

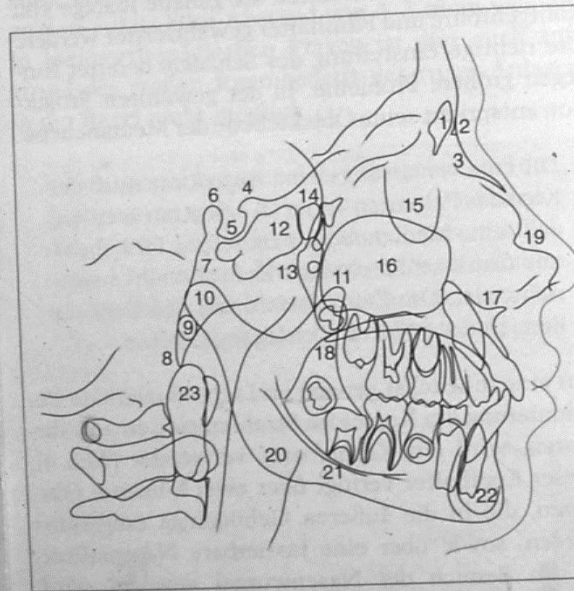


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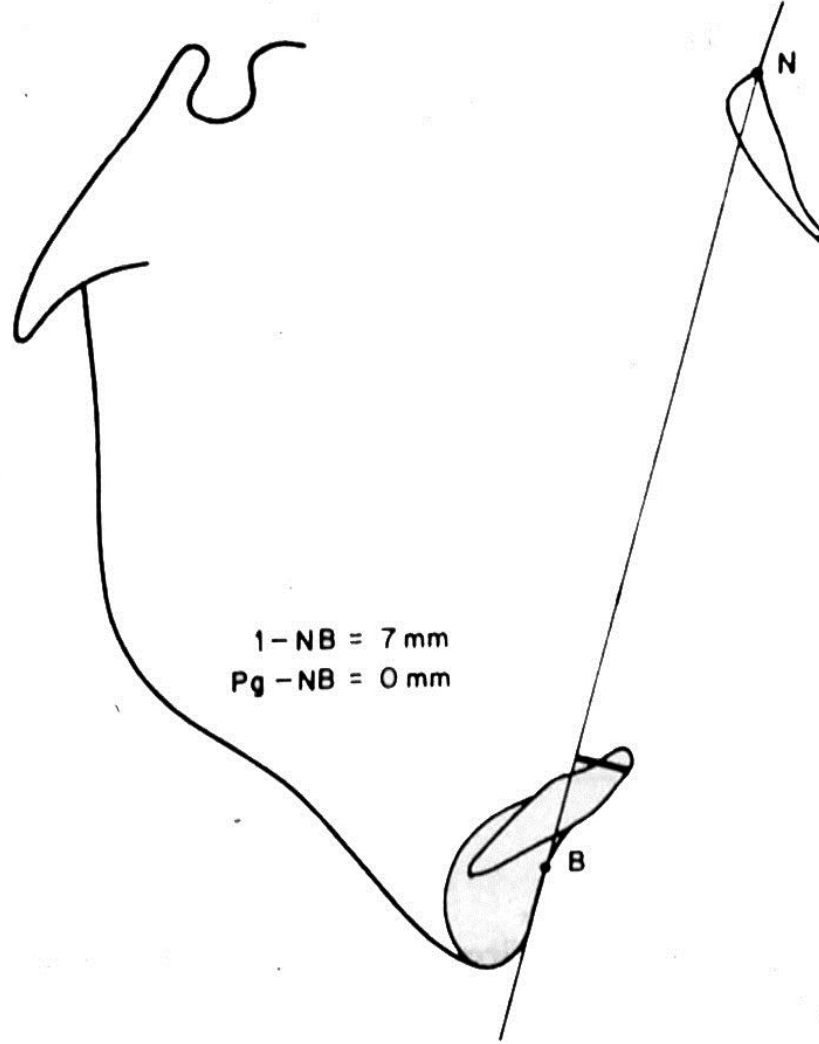


a



b

Abb. 5 Ferröntgen-Seitenbild (a) mit der dazugehörigen Durchzeichnung (b) der wichtigsten anatomischen Strukturen (1 = Sinus frontalis; 2 = Sutura frontonasalis; 3 = Os nasale; 4 = Processus clinoideus anterior; 5 = Sella turcica; 6 = Dorsum sellae; 7 = Clivus, Pars basilaris ossis occipitalis; 8 = Bas. Unterrand des Clivus; 9 = Porus acusticus externus; 10 = Processus condylaris mandibulae; 11 = Processus coronoideus; 12 = Sinus sphenoidalis; 13 = Fossa pterygopalatina; 14 = Cellulae ethmoidales; 15 = Orbita; 16 = Sinus maxillaris; 17 = Spina nasalis anterior; 18 = Spina nasalis posterior; 19 = Nasenknorpel; 20 = Angulus mandibulae; 21 = Canalis mandibulae; 22 = Unterkiefer-Symphyse; 23 = Dens axis).



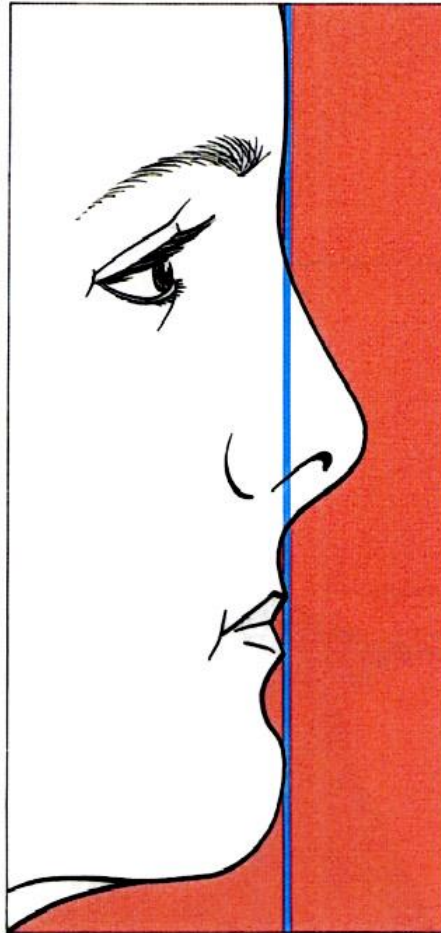
Şekil 33. Steiner-Holdaway Analizine göre, kemik kaidesinden önde (protrusive) bulunan alt keser konumu.

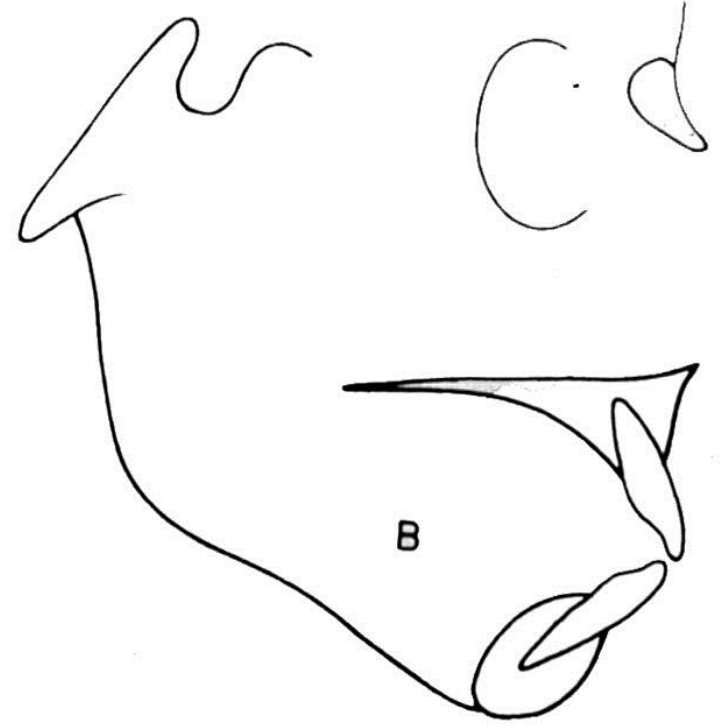
Konvexität und Konkavität des Weichteilprofils

444 Auswertungsmethode

Einzeichnung der Bezugslinien:
obere Gerade = Verbindung zwischen Glabella und Oberlippenkante;
untere Gerade = Verbindung zwischen Oberlippenkante und Scheitelpunkt des Weichteilkinns.
Bei einer Winkelung zwischen den beiden Geraden besteht eine Weichteilprofilabweichung; bei einem geraden Verlauf ist das Profil harmonisch.

Links: Schematische Darstellung eines geraden Profils,
Mitte: eines konvexen Profils,
Rechts: eines konkaven Profils.





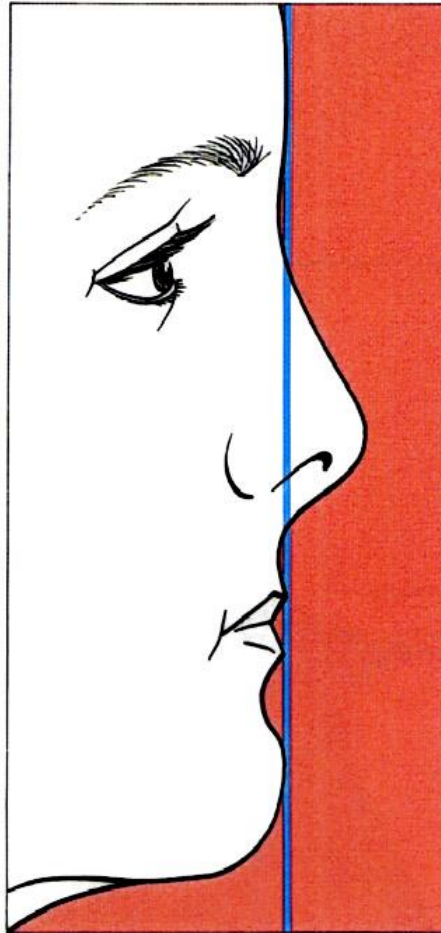
Yüz iskeleti tipleri. A: Ön yüz dik yön boyutlarının azaldığı yüz tipi (hypodivergency) ve kesici dişlerin retruzyonu. B: Ön yüz dik yön boyutlarının arttığı yüz tipi. (hyperdivergency) ve kesici dişlerin protruzyonu.

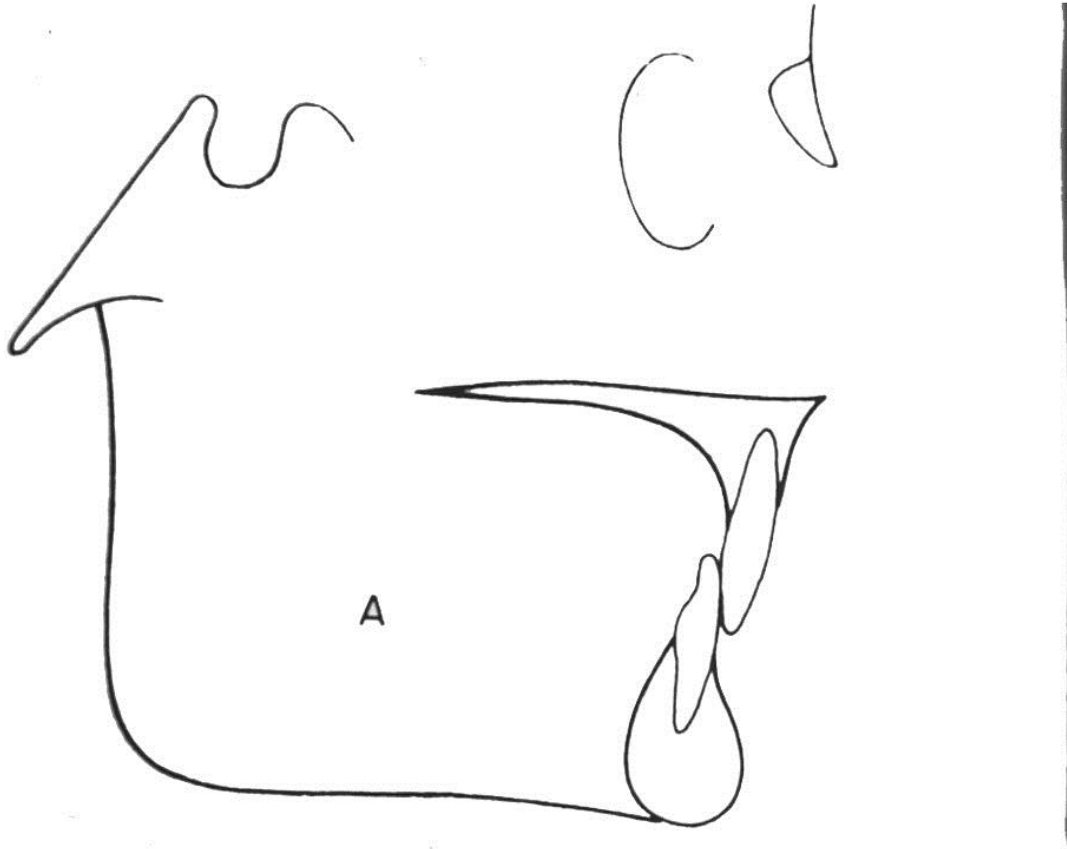
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Bei einer Winkelung zwischen den beiden Geraden besteht eine Weichteilprofilabweichung; bei einem geraden Verlauf ist das Profil harmonisch.

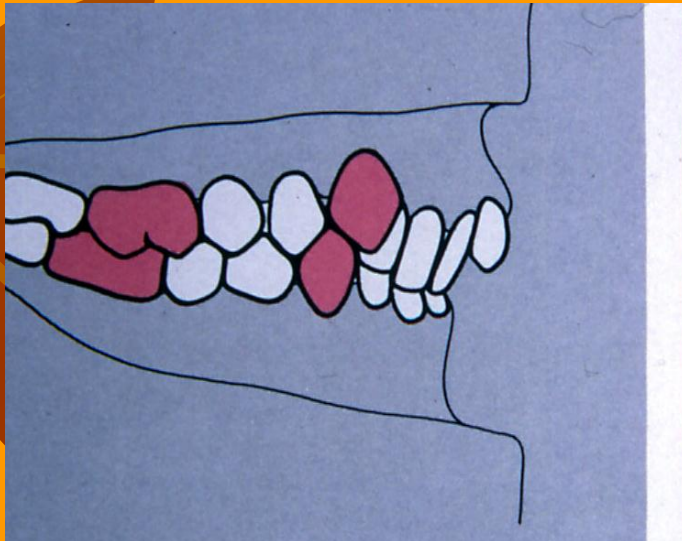
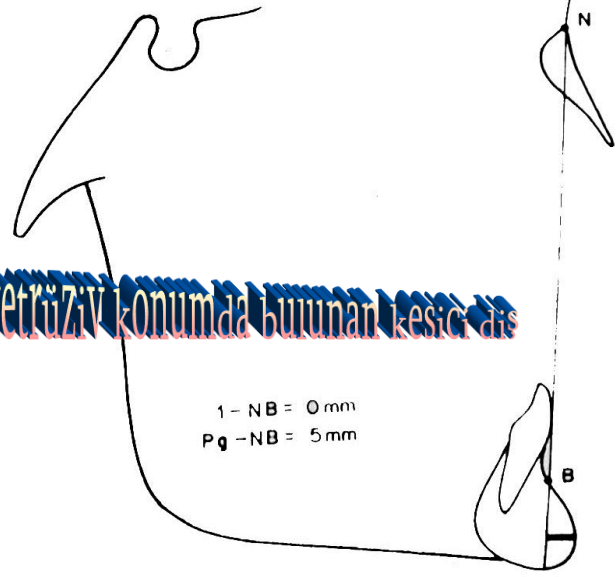
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Mitte: eines konvexen Profils,
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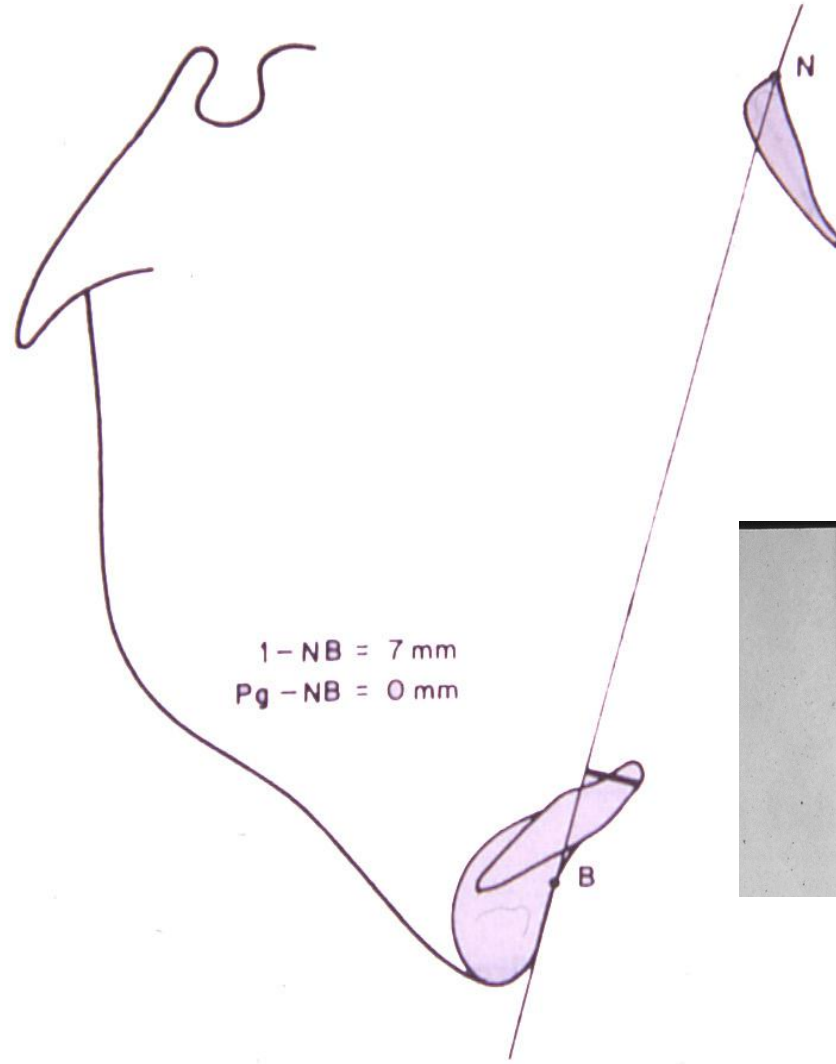




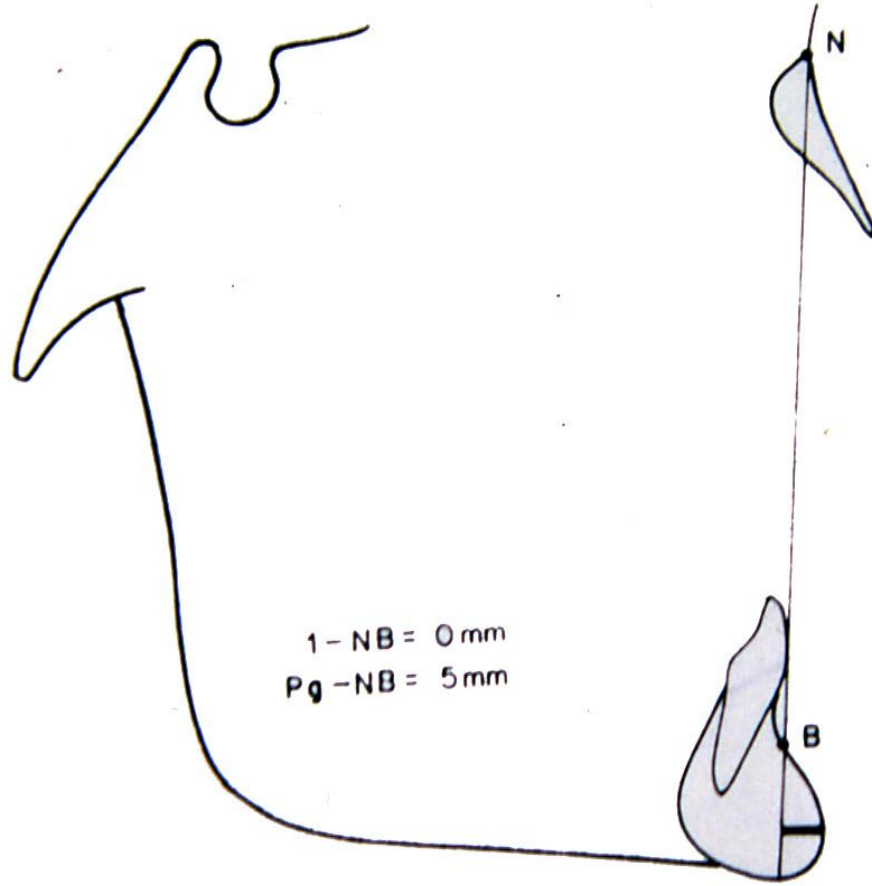
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Aşağıdaki kemik kaidesine göre retrüziV konumda bulunan kesicü diş

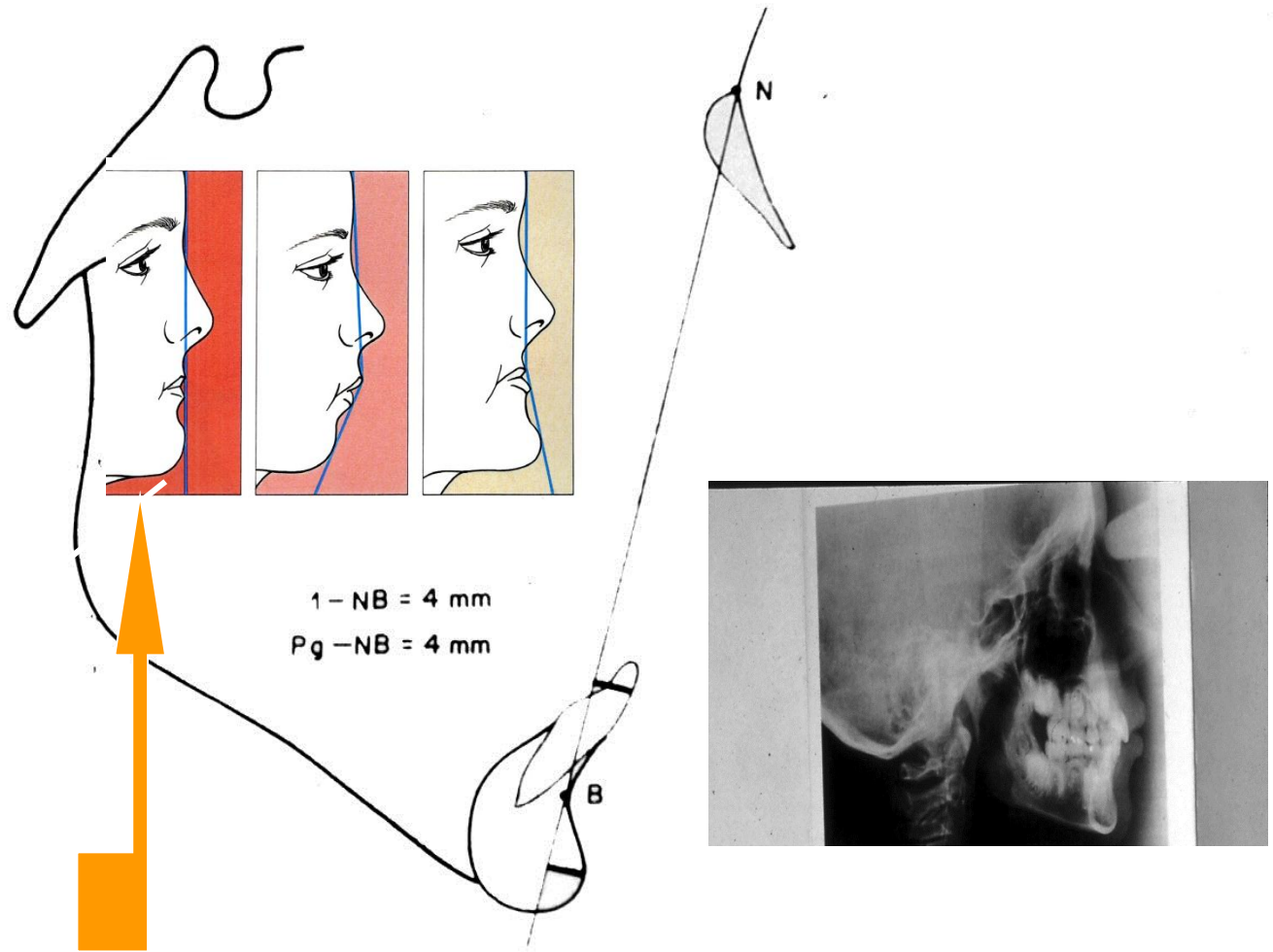




Şekil 33. Steiner-Holdaway Analizine göre, kemik kaidesinden önde (protrusive) bulunan alt keser konumu.



Şekil 32. Steiner Holdaway Analizine göre, kemik kaidesinden geride (retrusive) bulunan alt keser konumu.



Şekil 31. Steiner-Holdaway Analizine göre, kemik kaidesiyle ideal ilişkide olan alt kesici diş konumu.





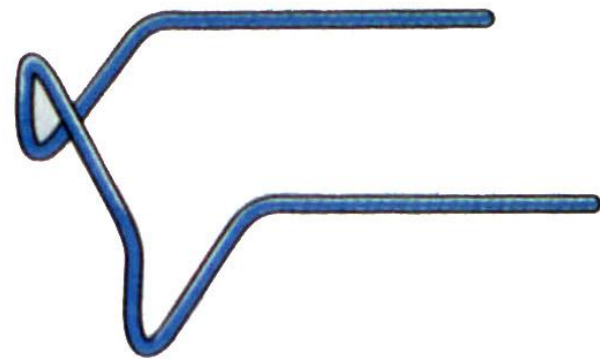
Dreiecksklammer



Pfeilkammer

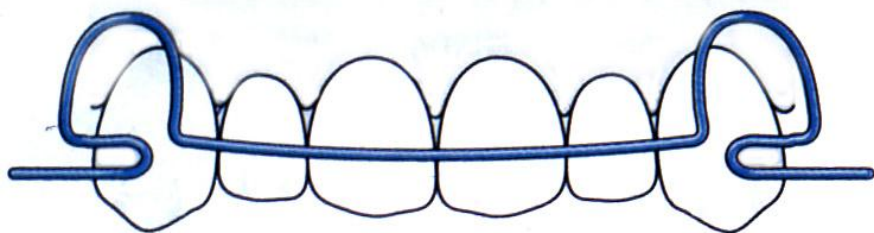


Knopfanker
(RUSH-Anker)

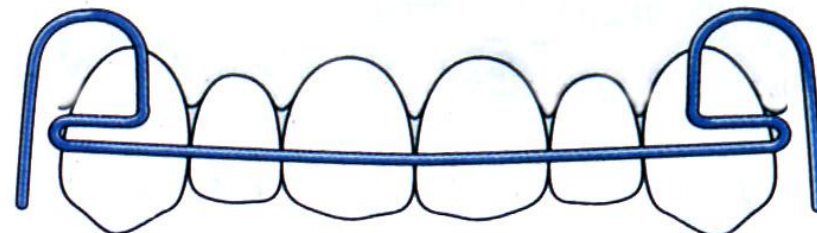


ADAMS-Klammer

Abb. 9 Verschiedene Retentionselemente für die Befestigung herausnehmbarer Behandlungsbehelfe.



Korrektur am distal rotierten Zahn 3



Korrektur am mesial rotierten Zahn 3

11 Spezielle Frontfedern zur Korrektur der Eckzähne.

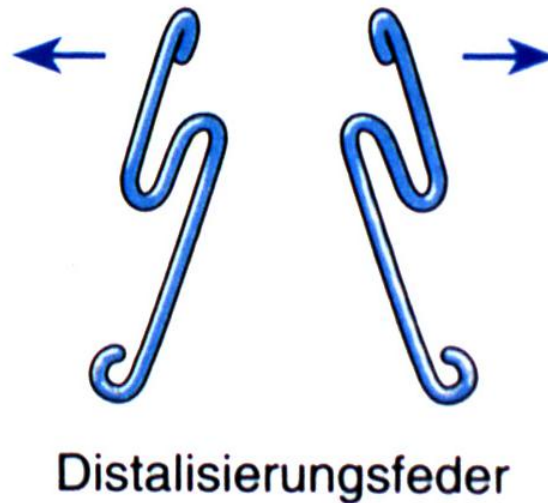
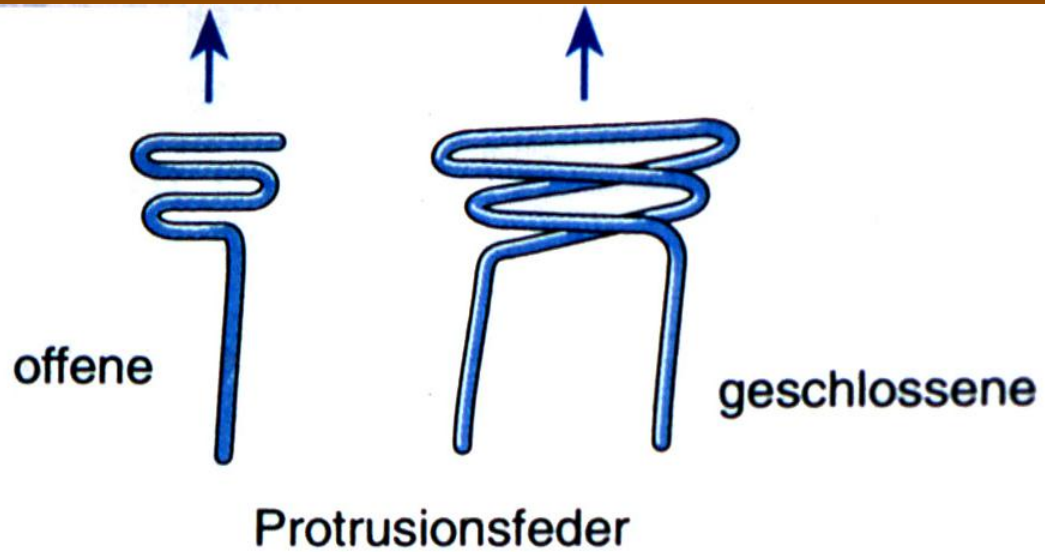
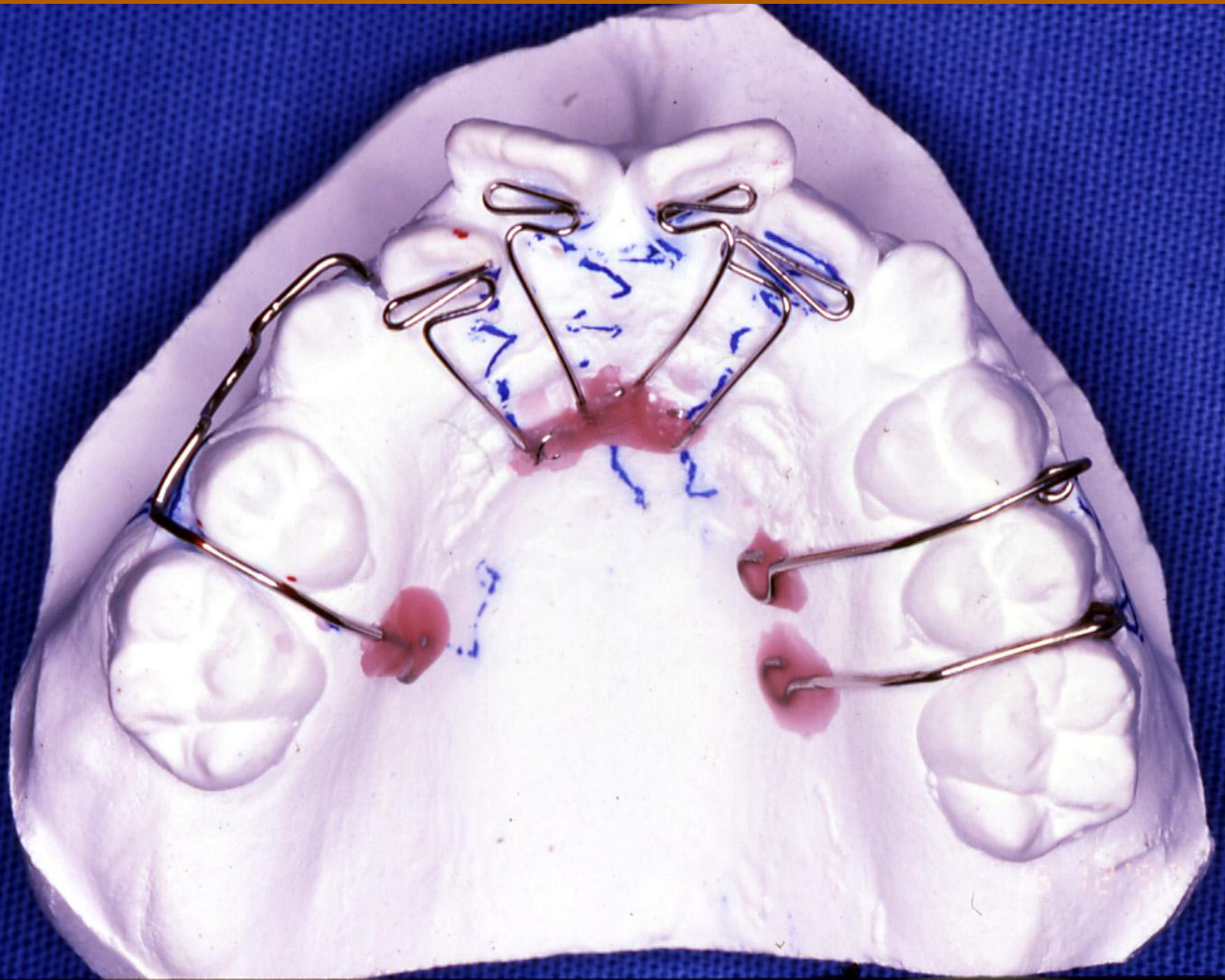
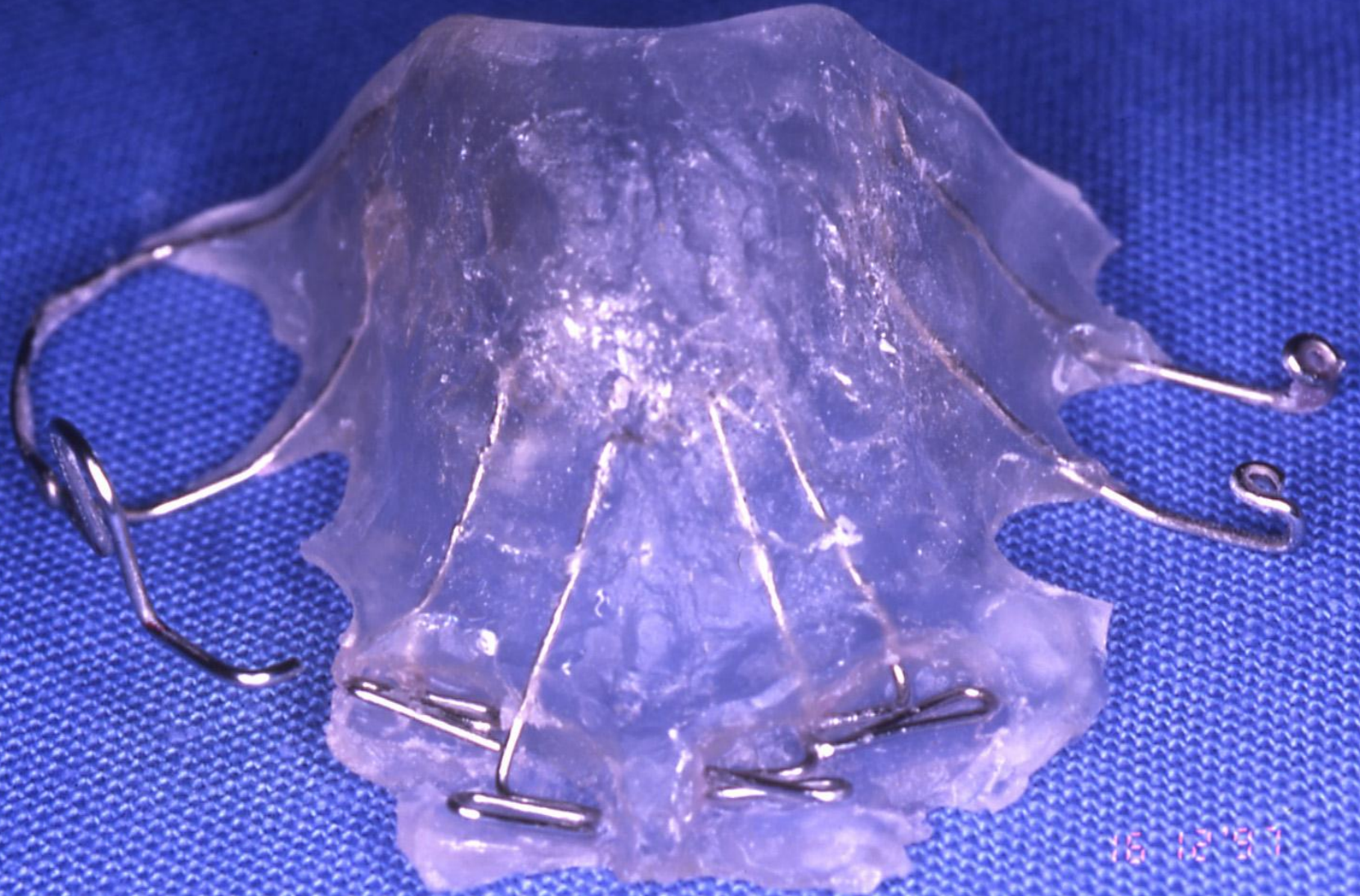


Abb. 10 Verschiedene Federn für die Einzelzahnbewegungen.



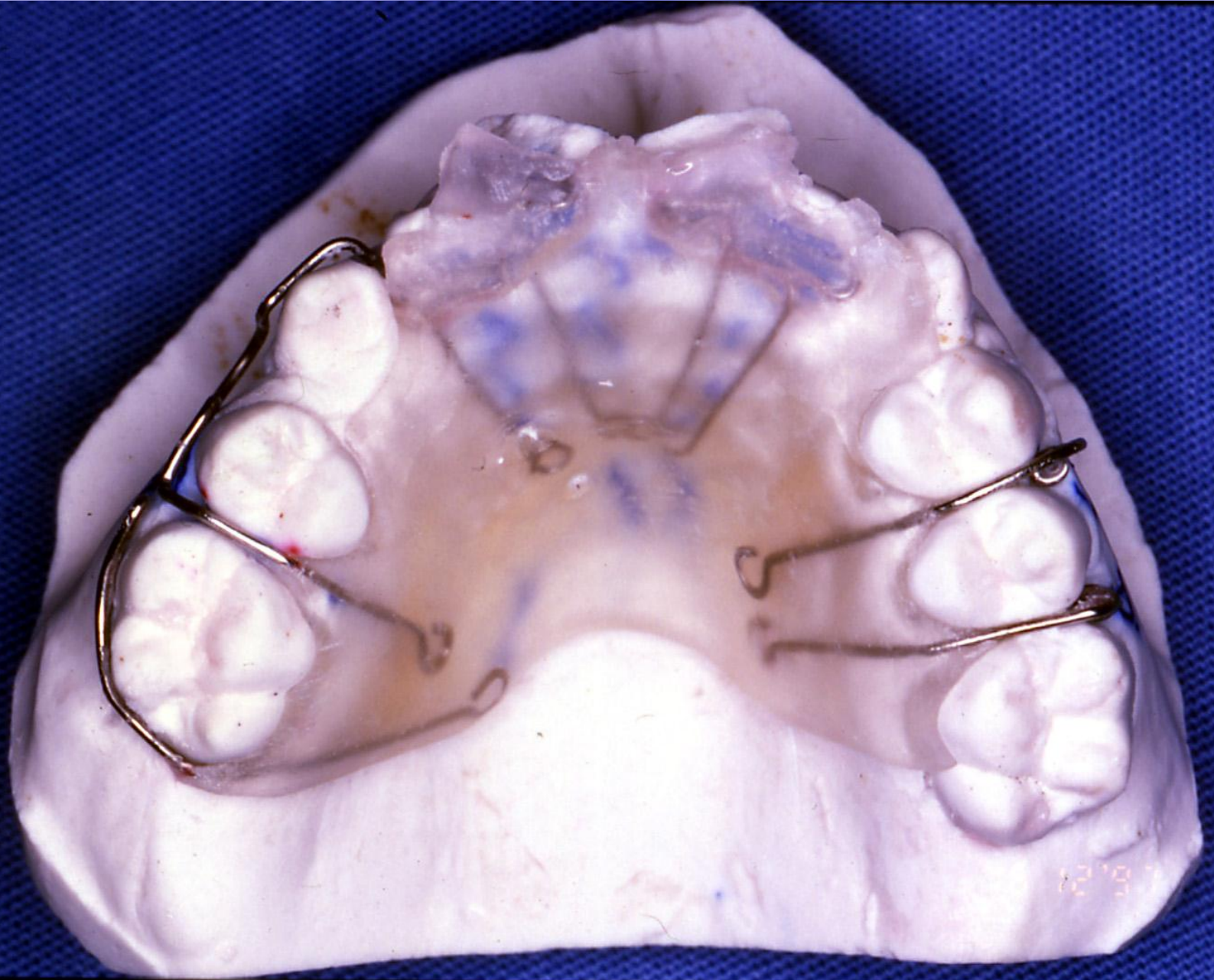




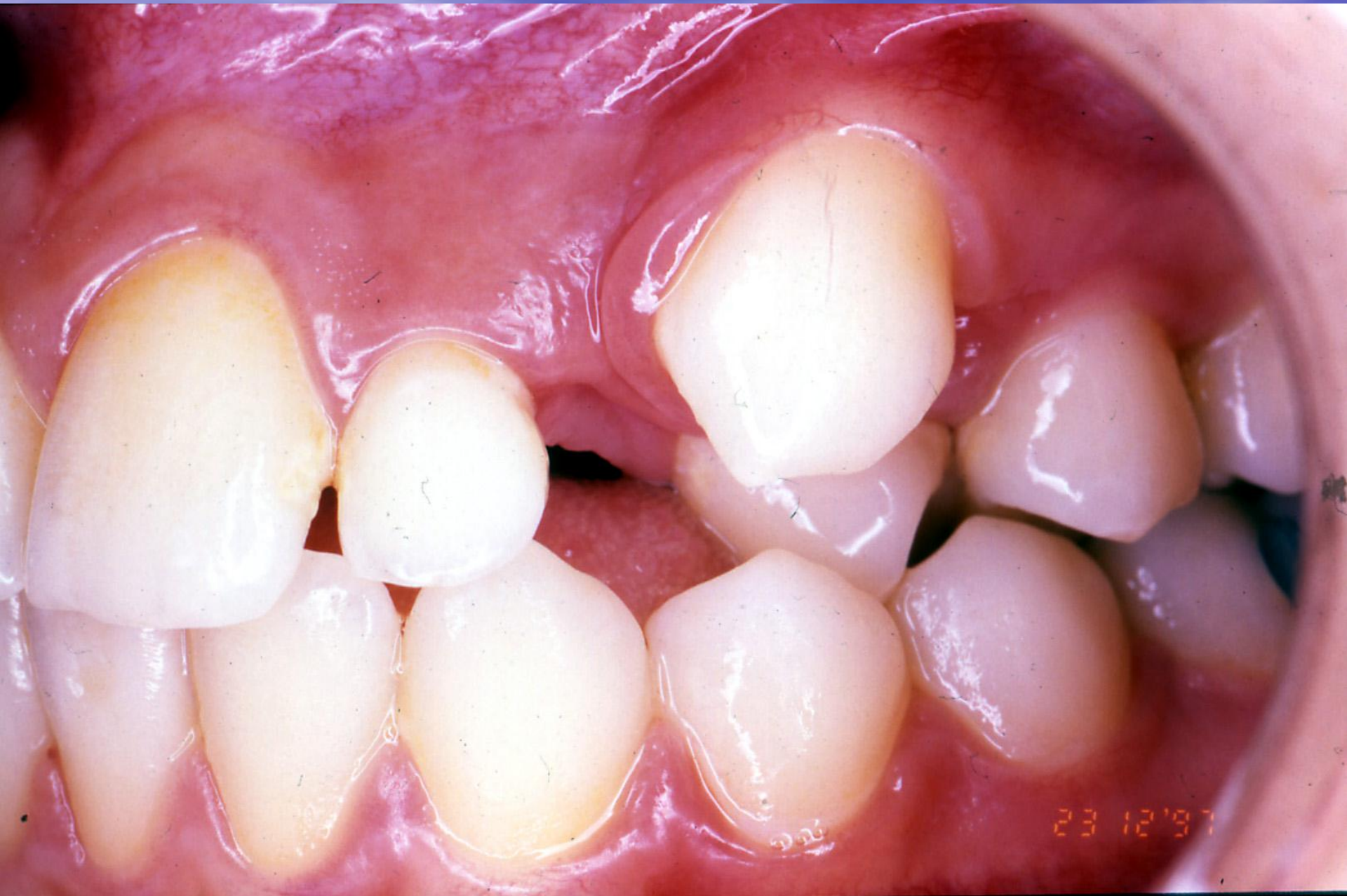


15 12 '97



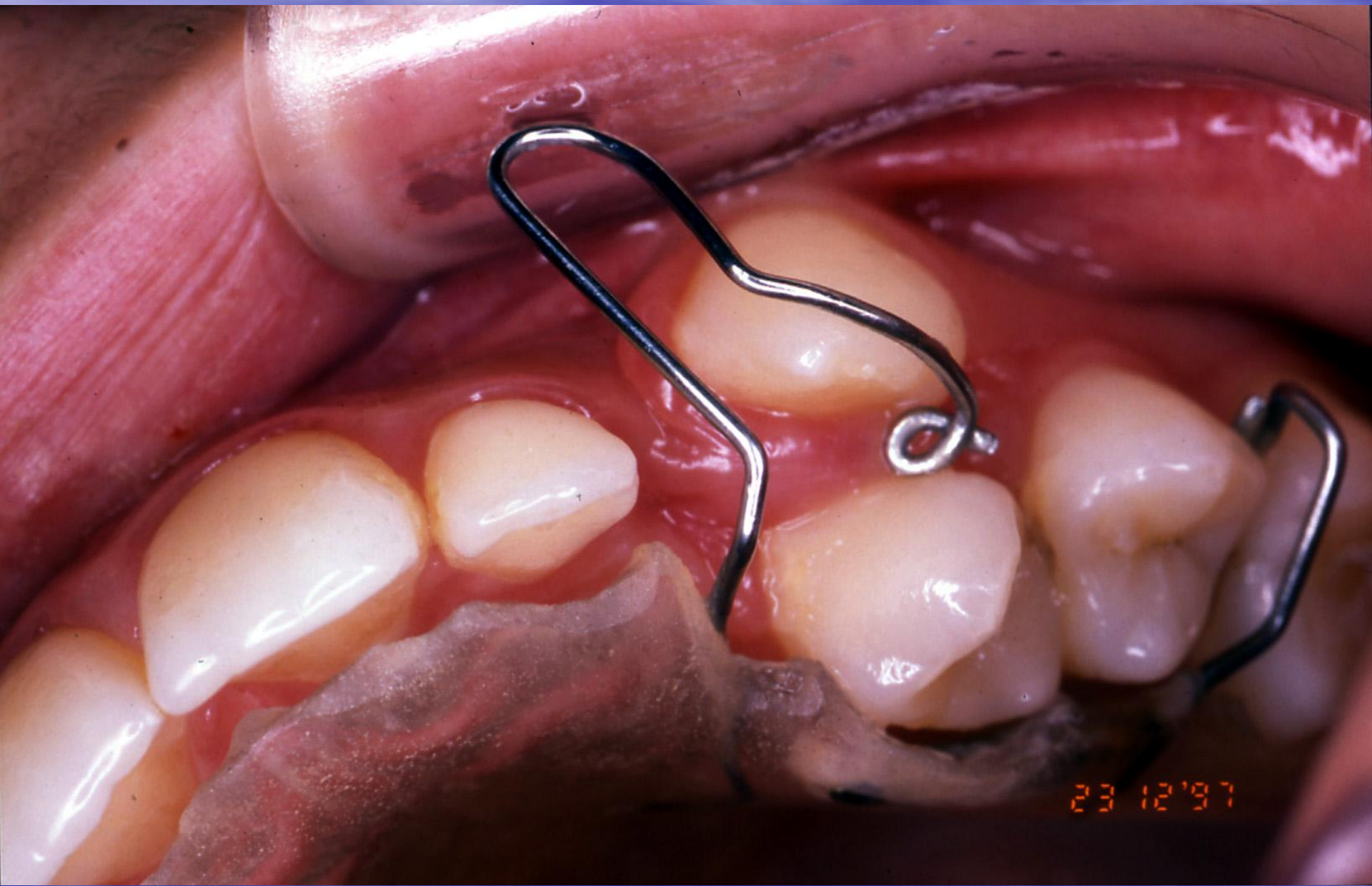








89 12 11



23 12 '97



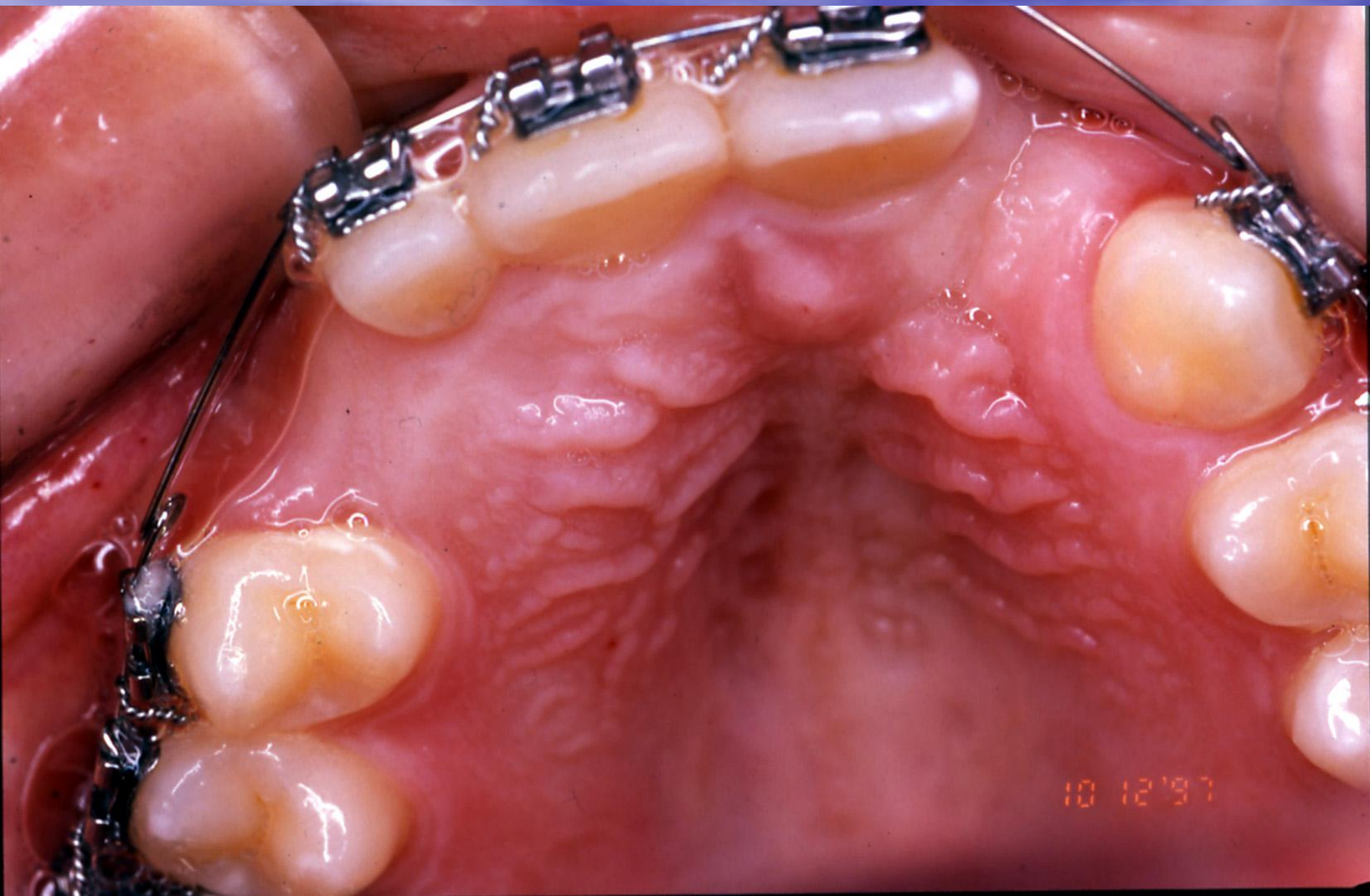


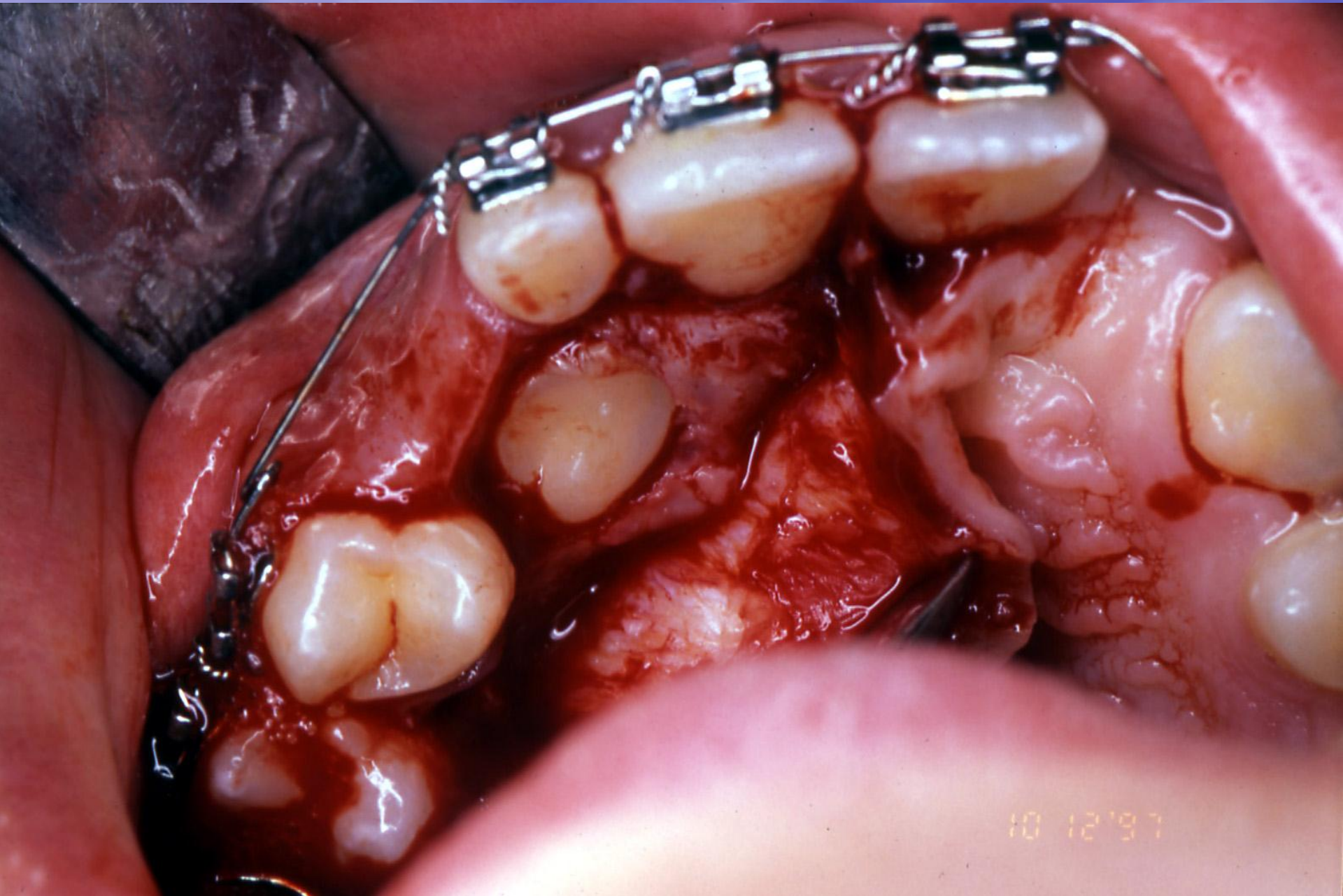




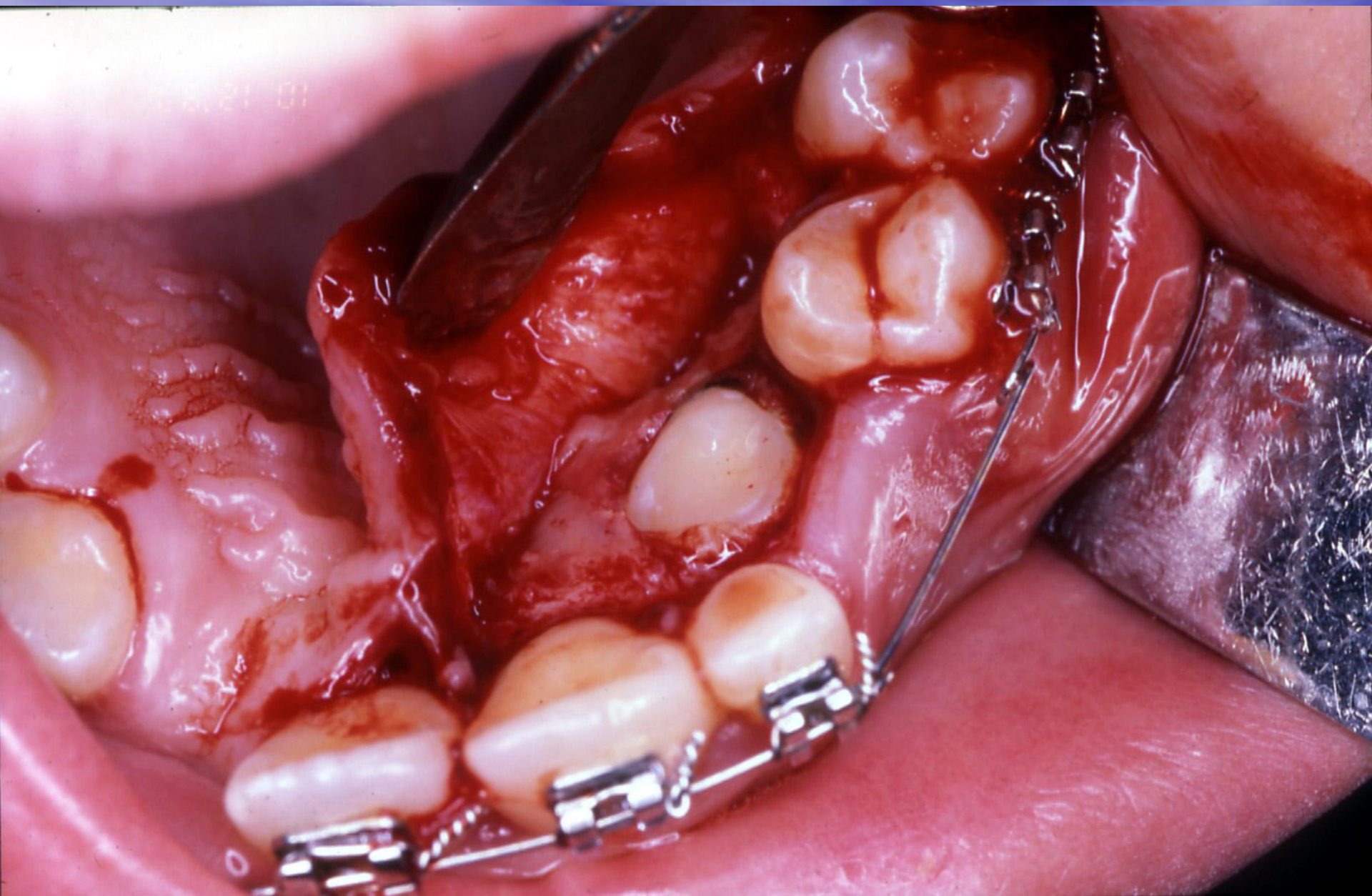
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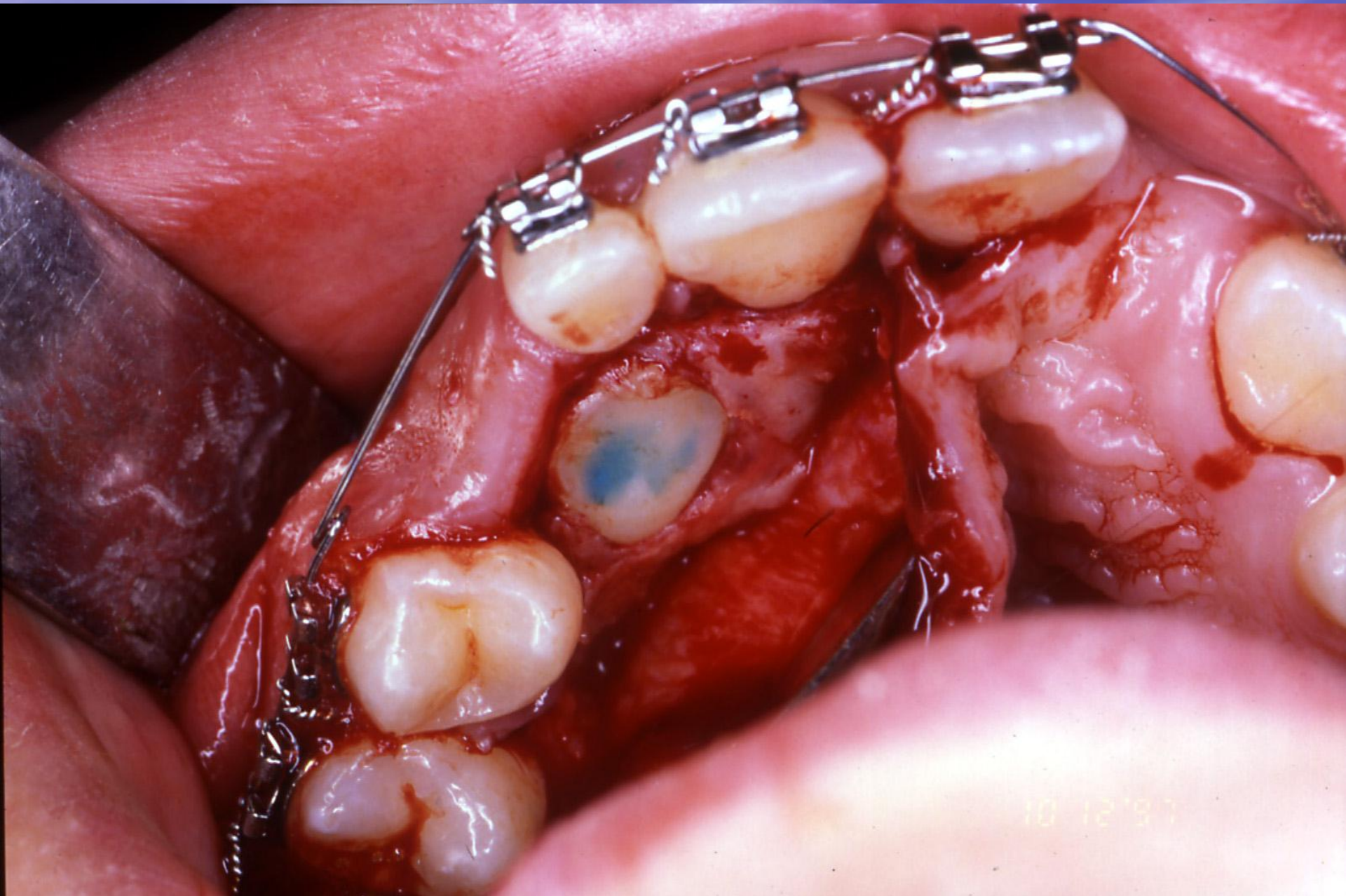


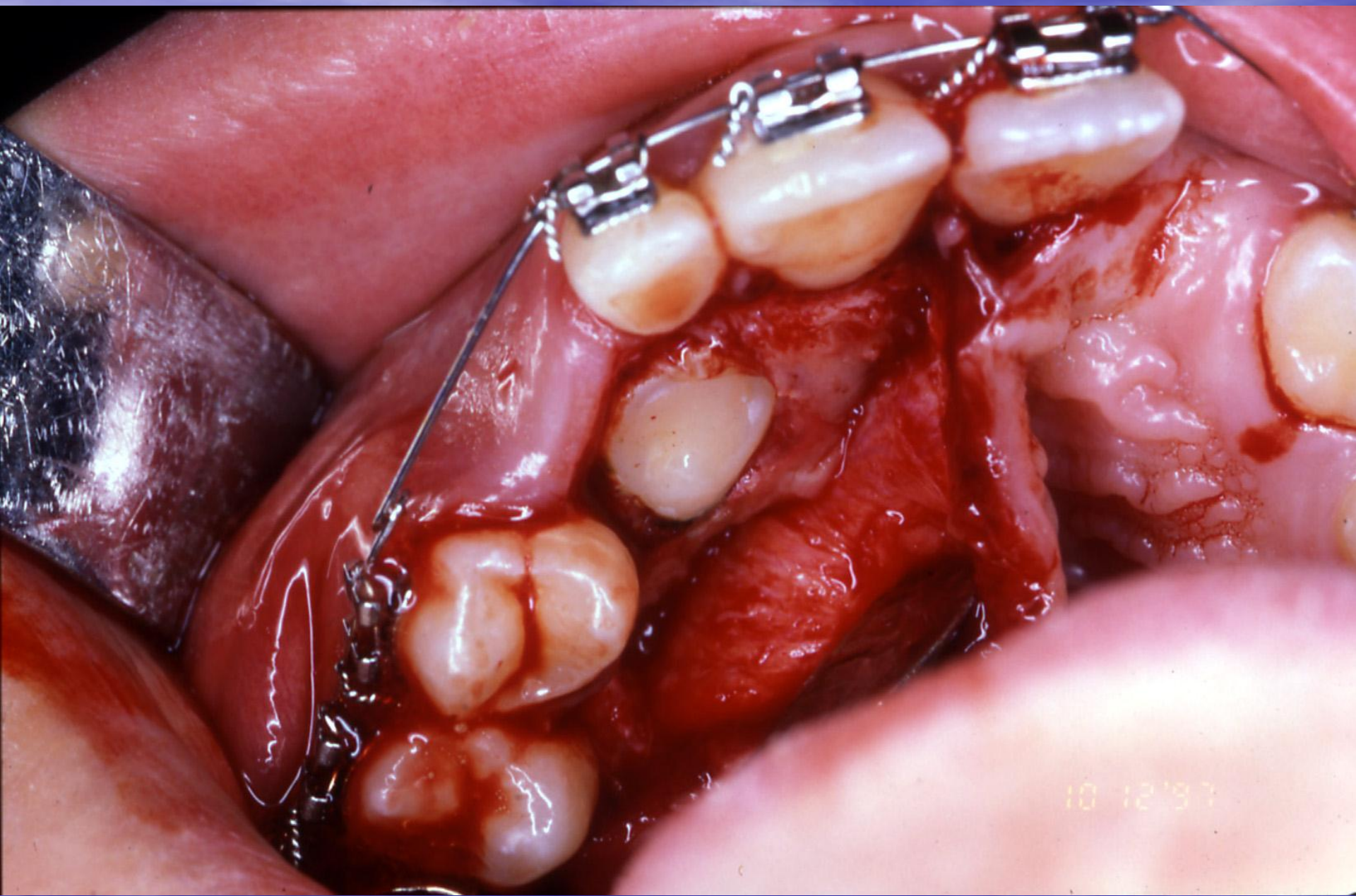


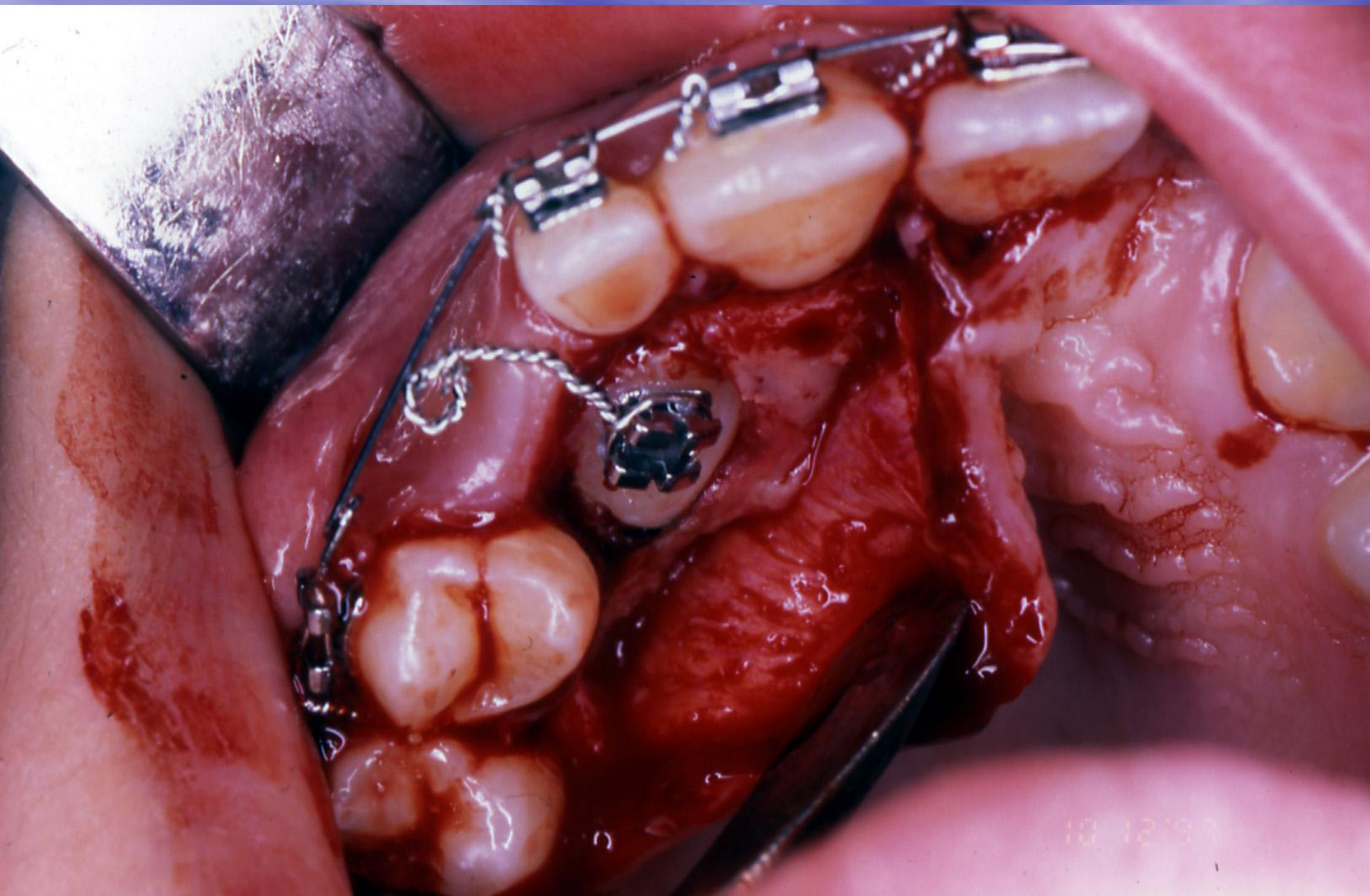


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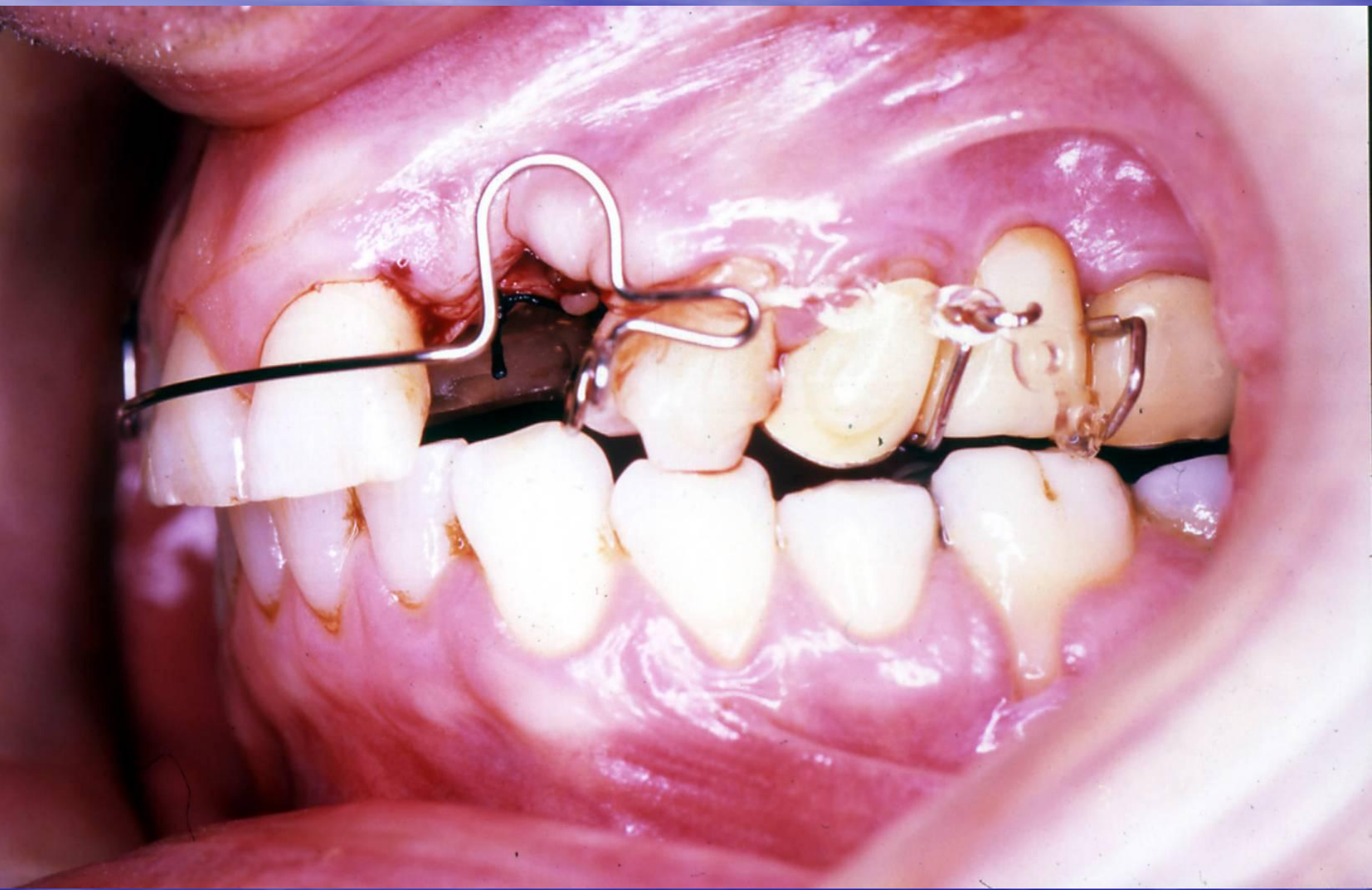


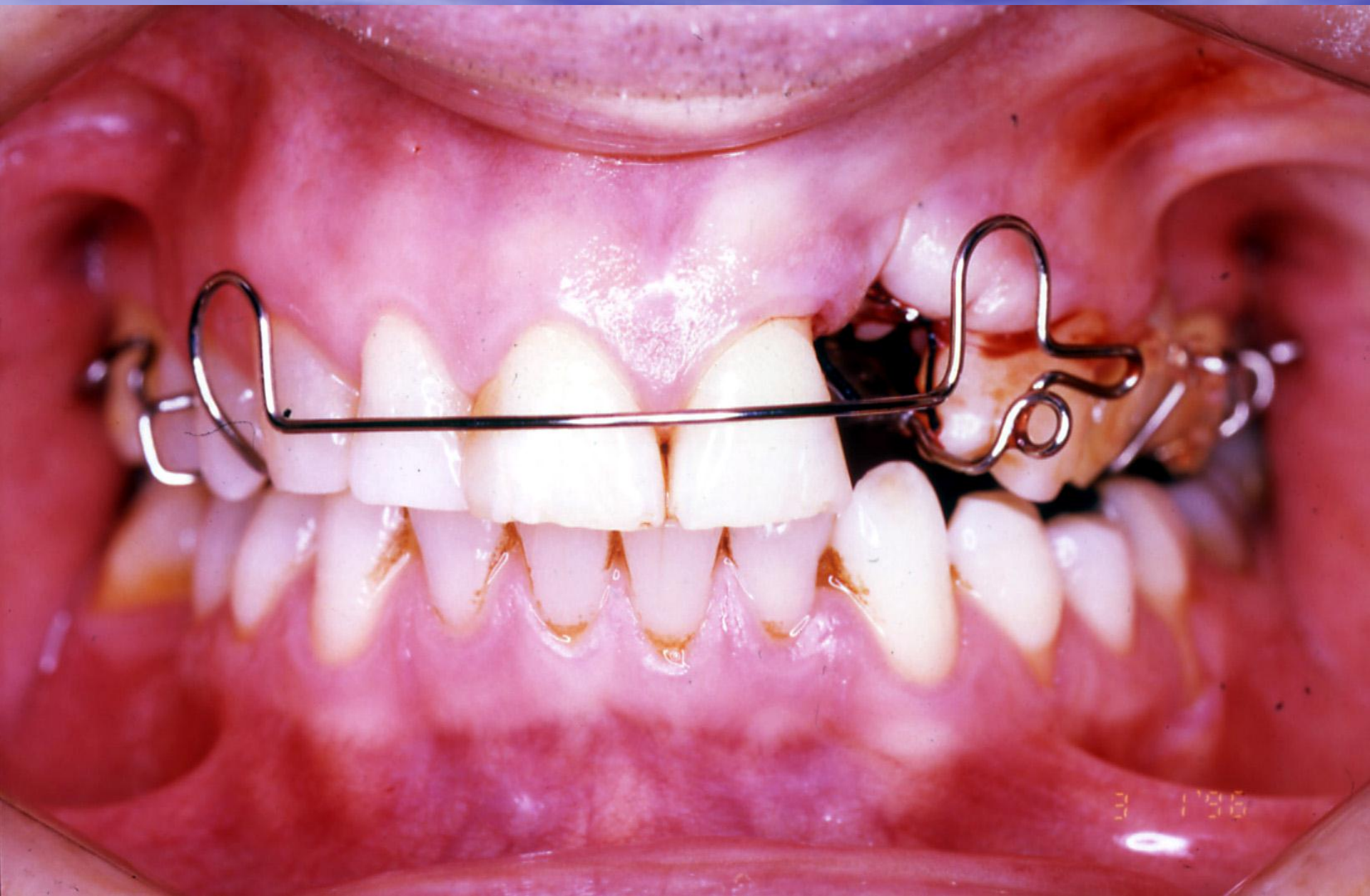


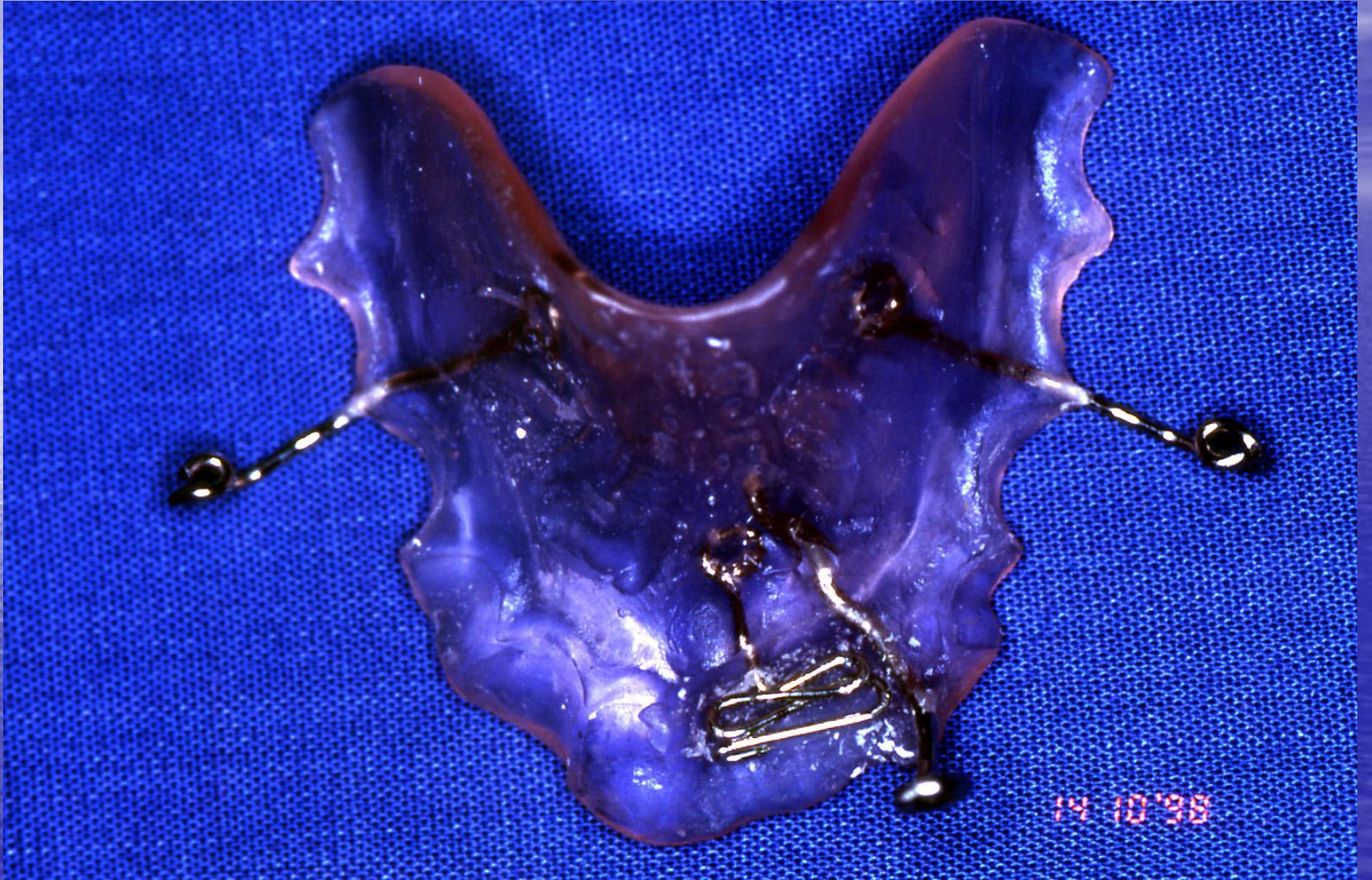




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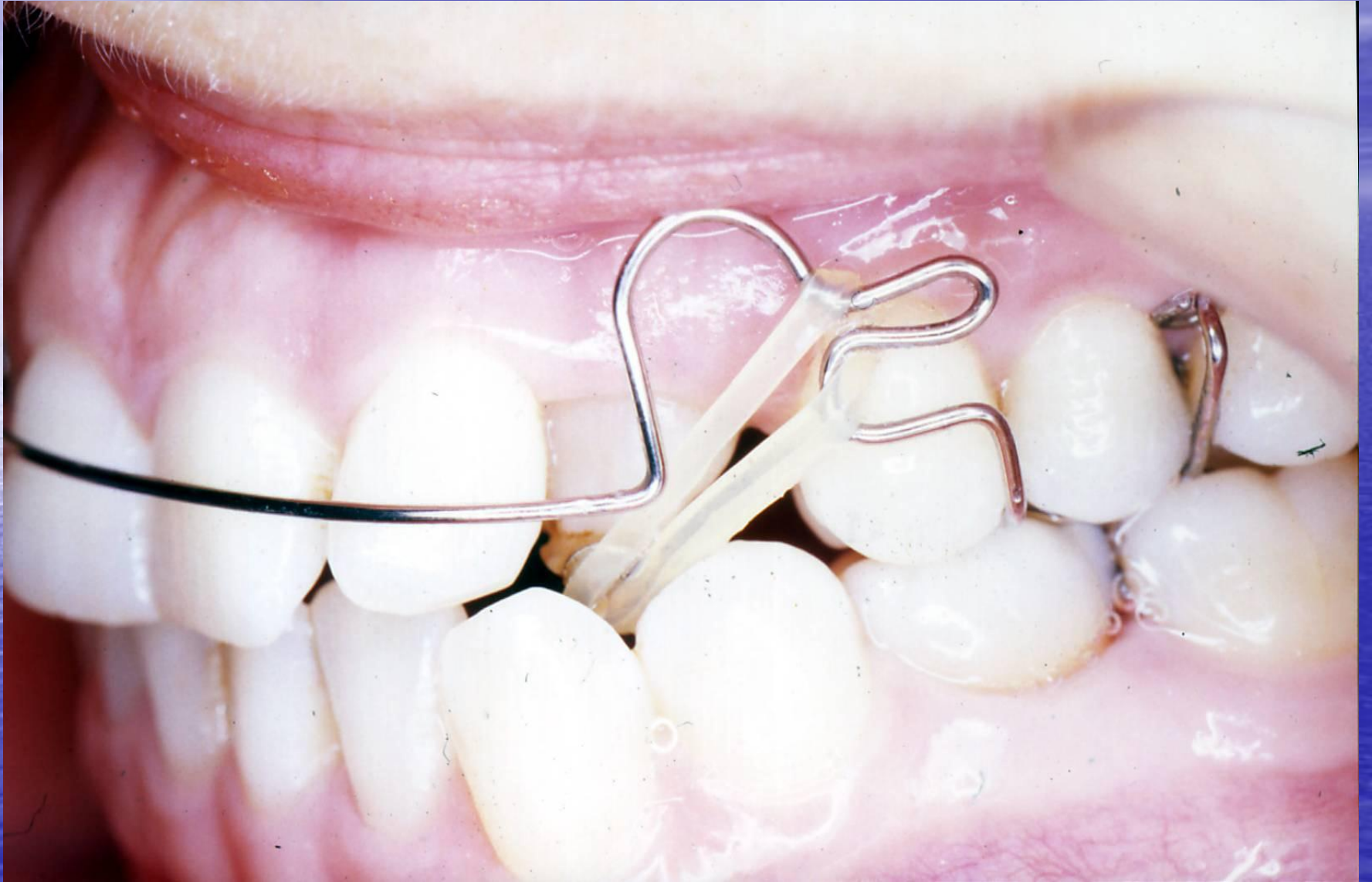




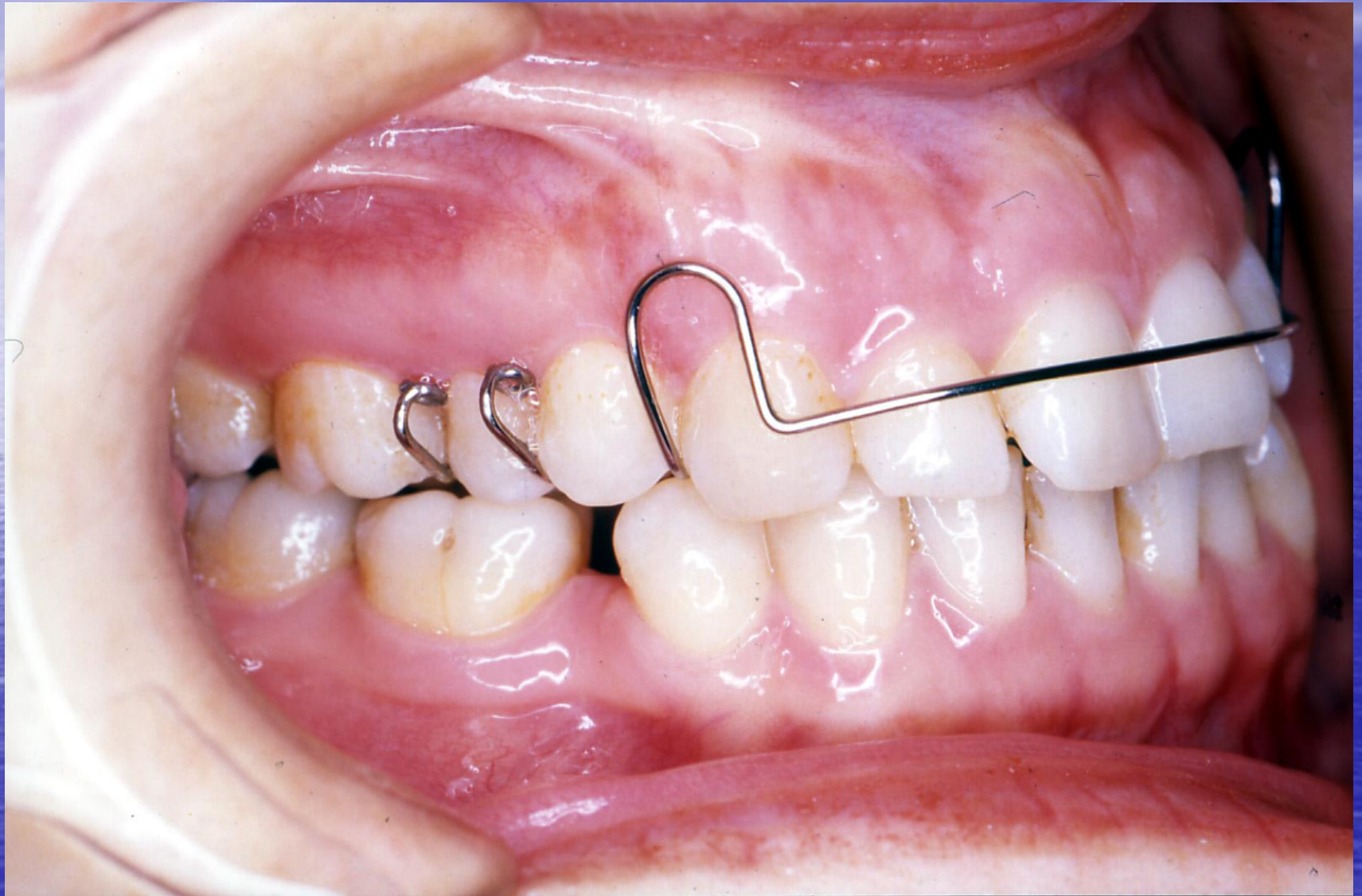








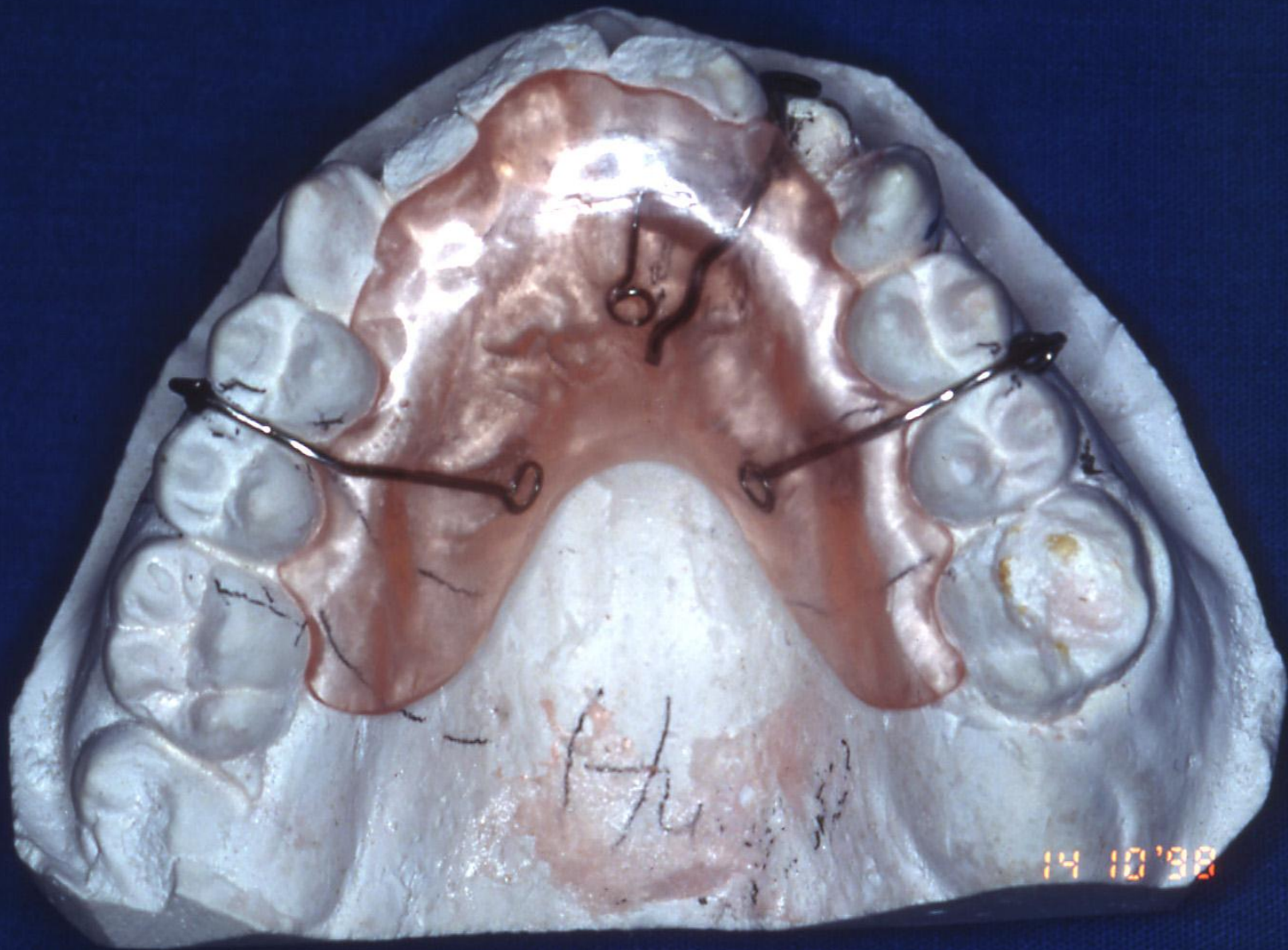








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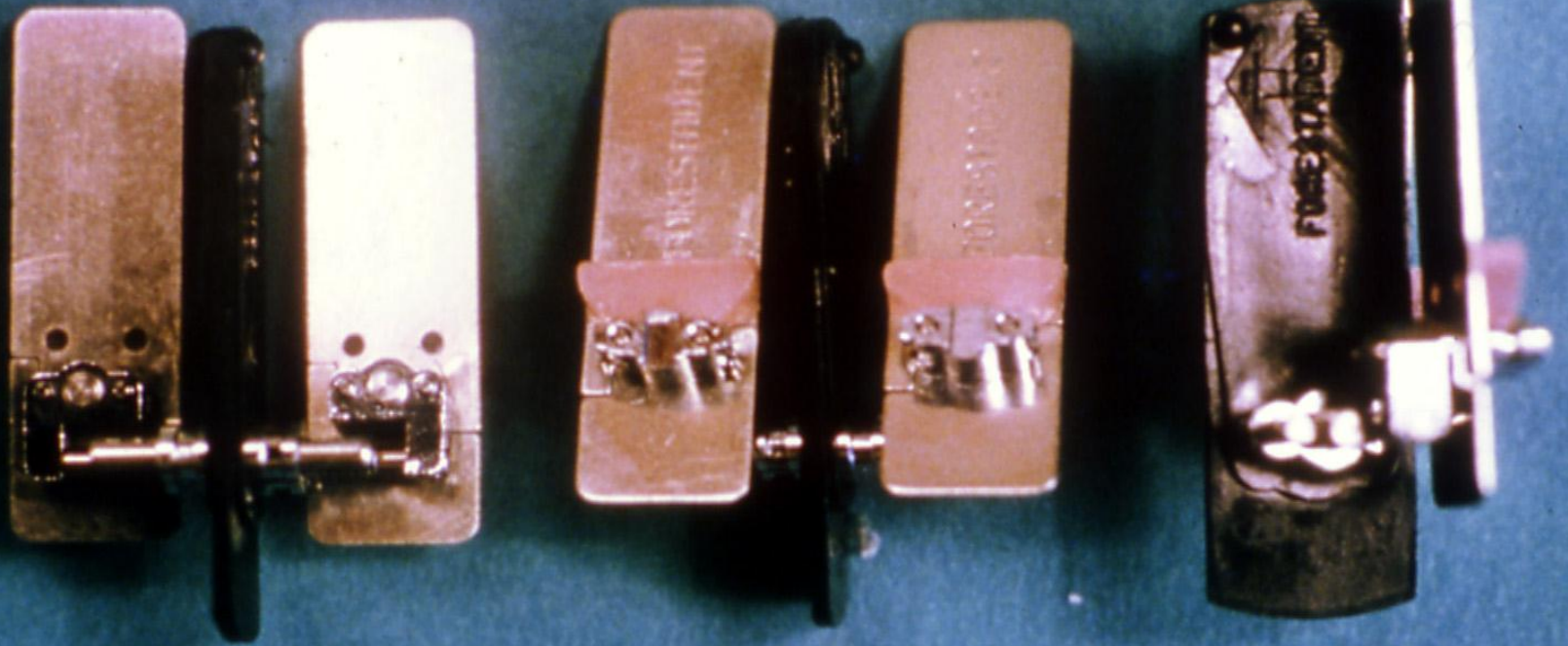






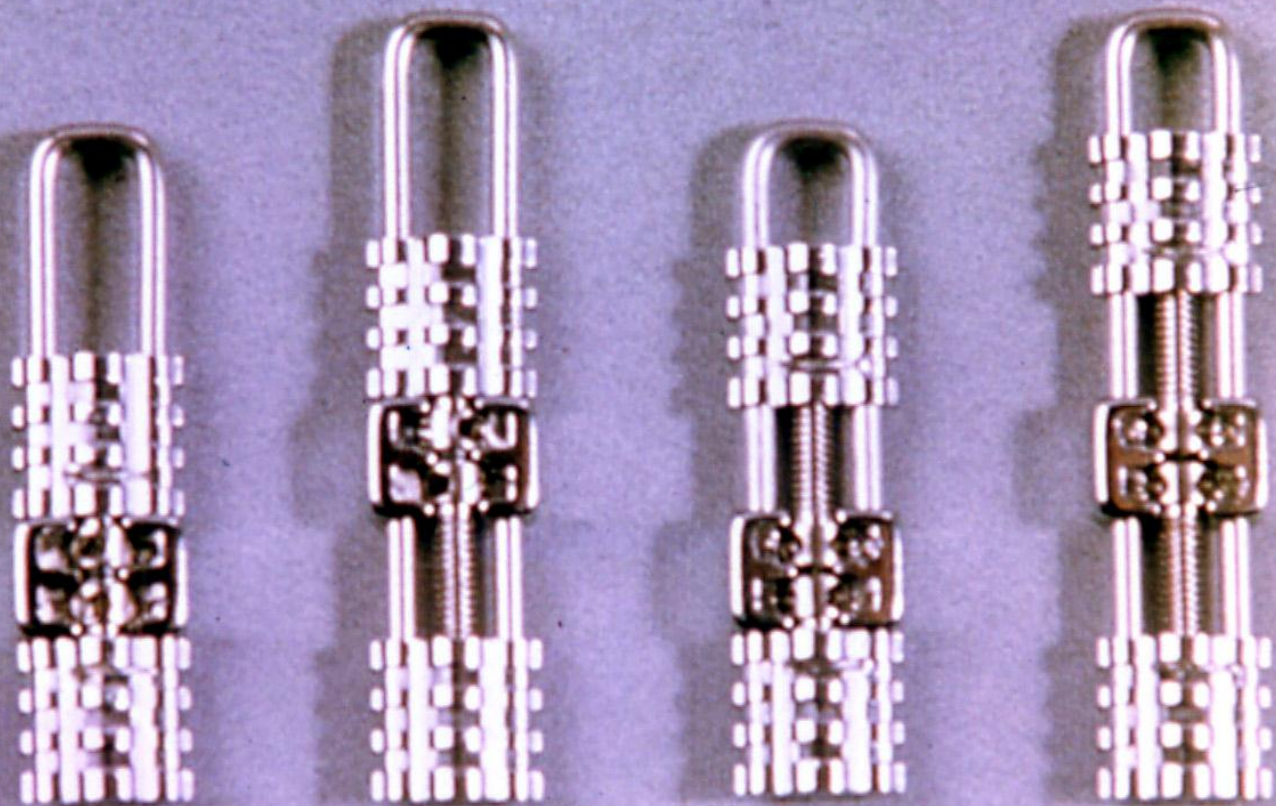


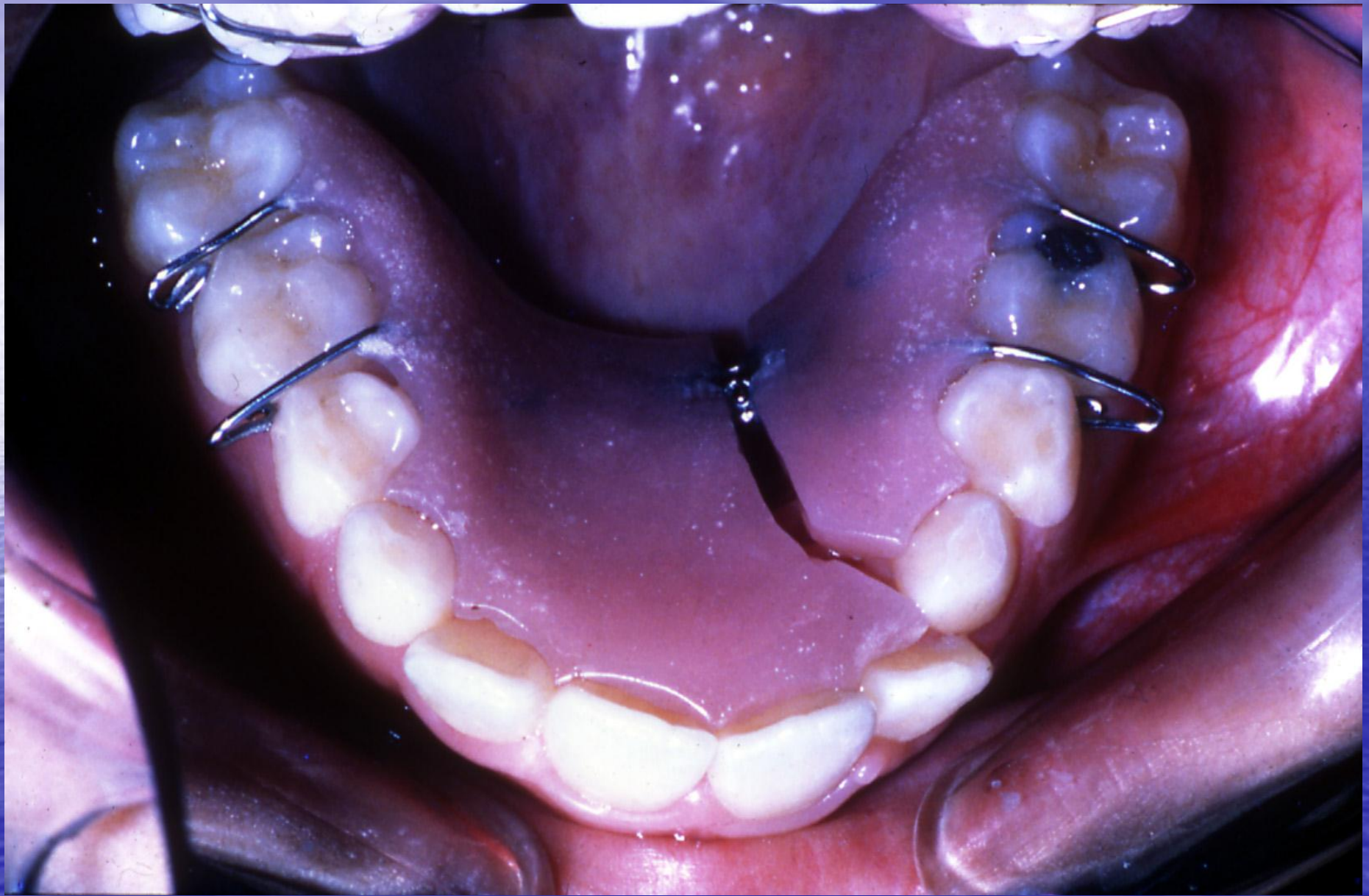
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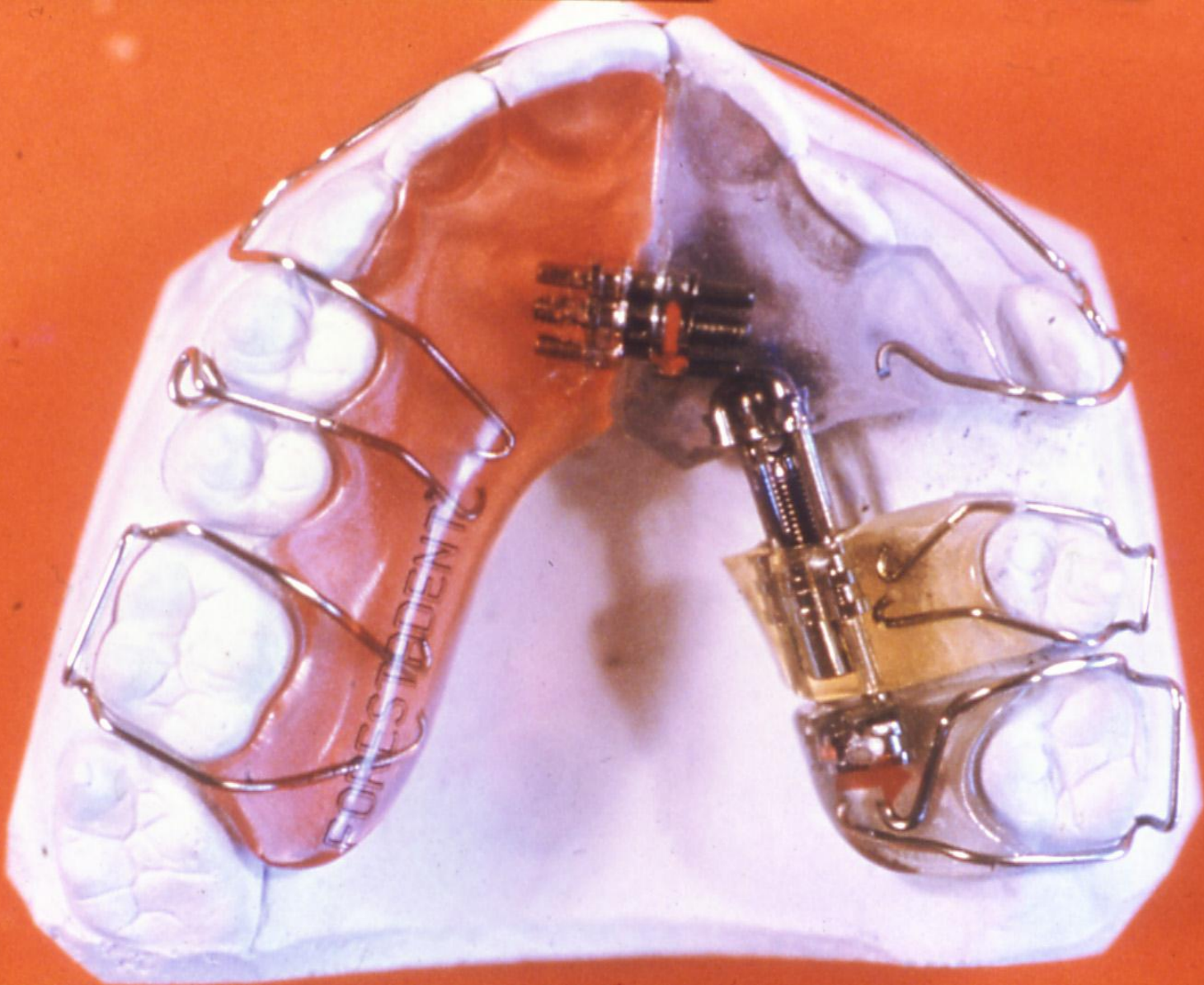


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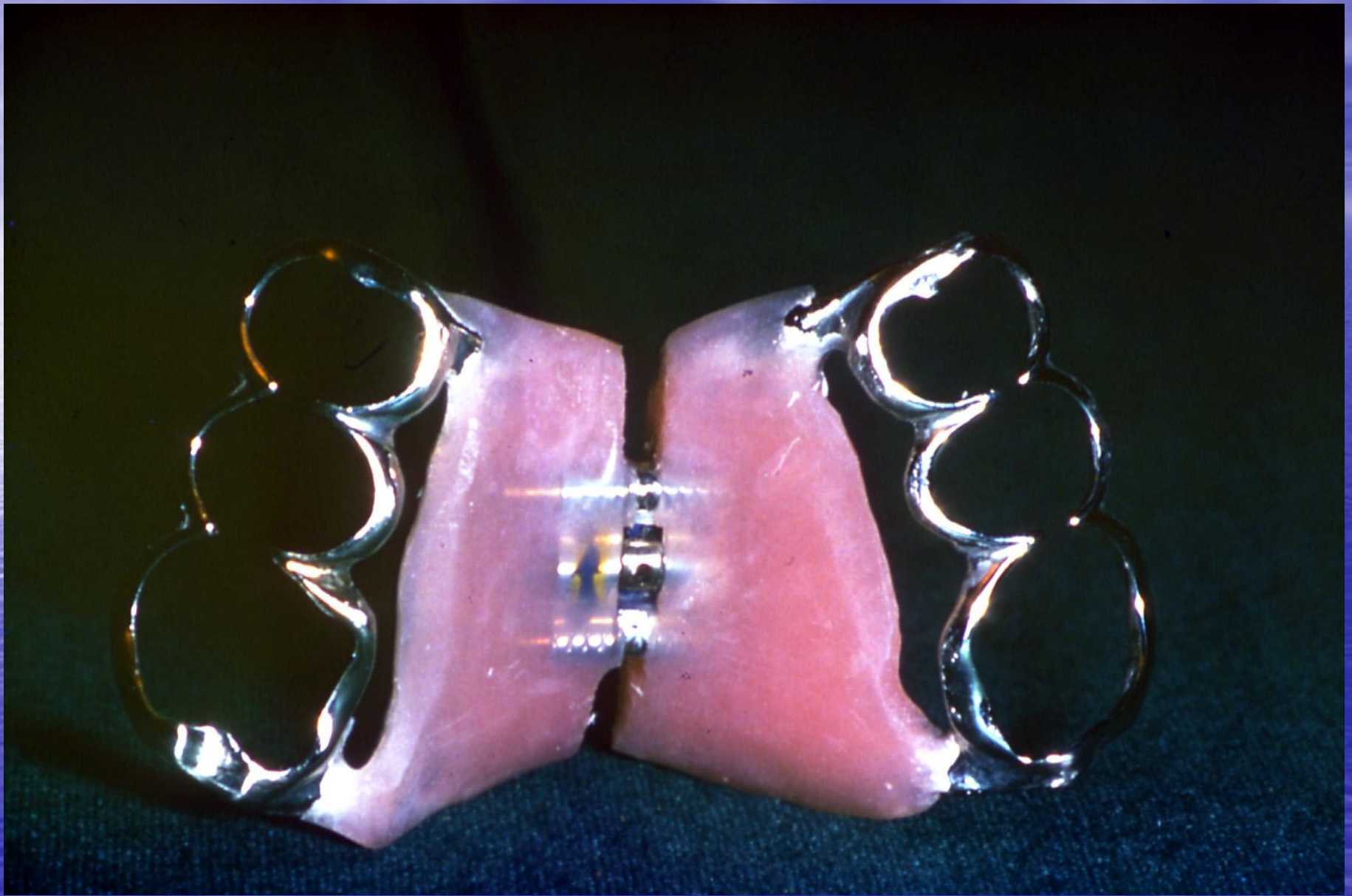
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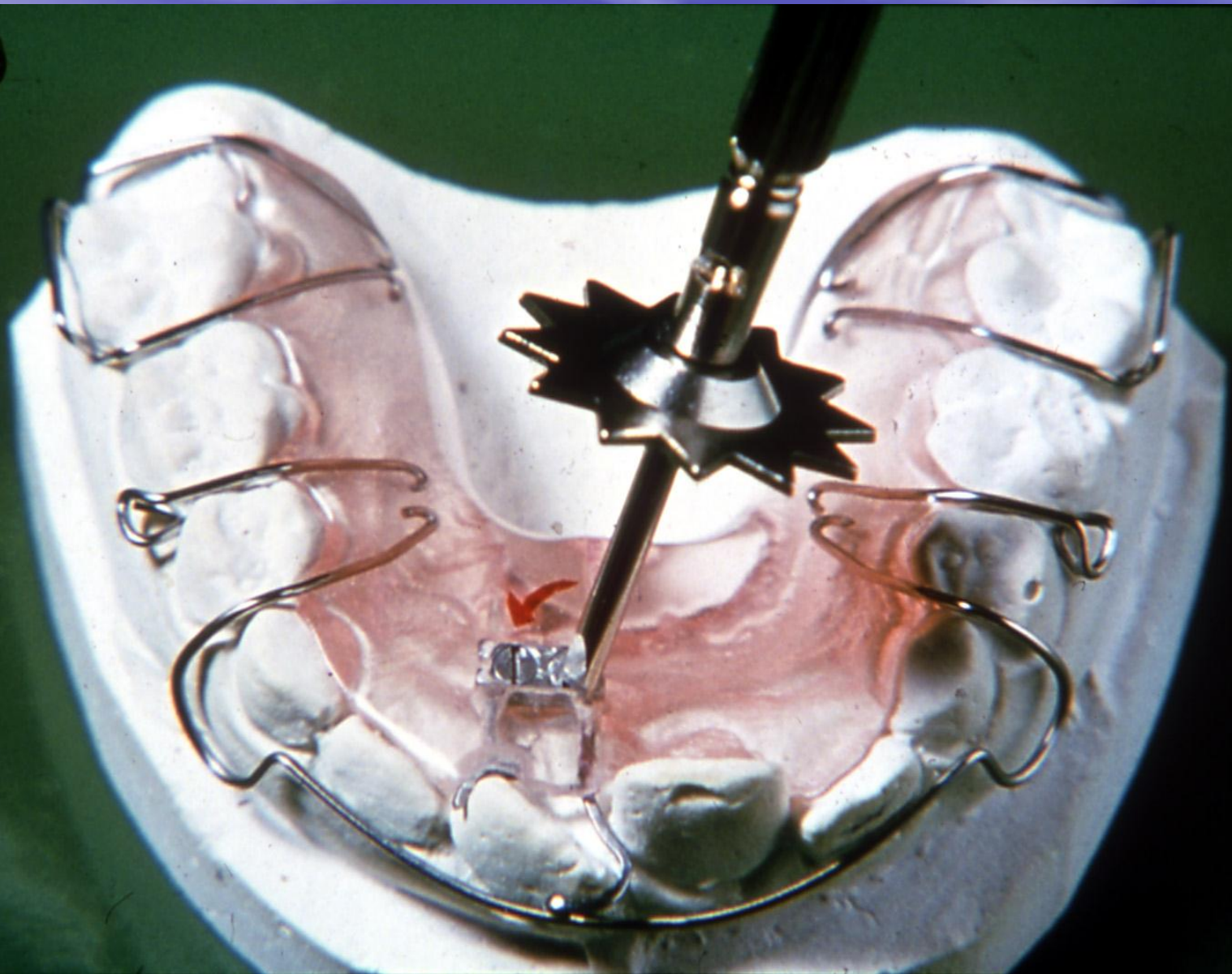




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Anıl Maşacı



Anıl Maşacı





5 3 '99



5 3'99







18 2'03





18 2'03



26 5'04

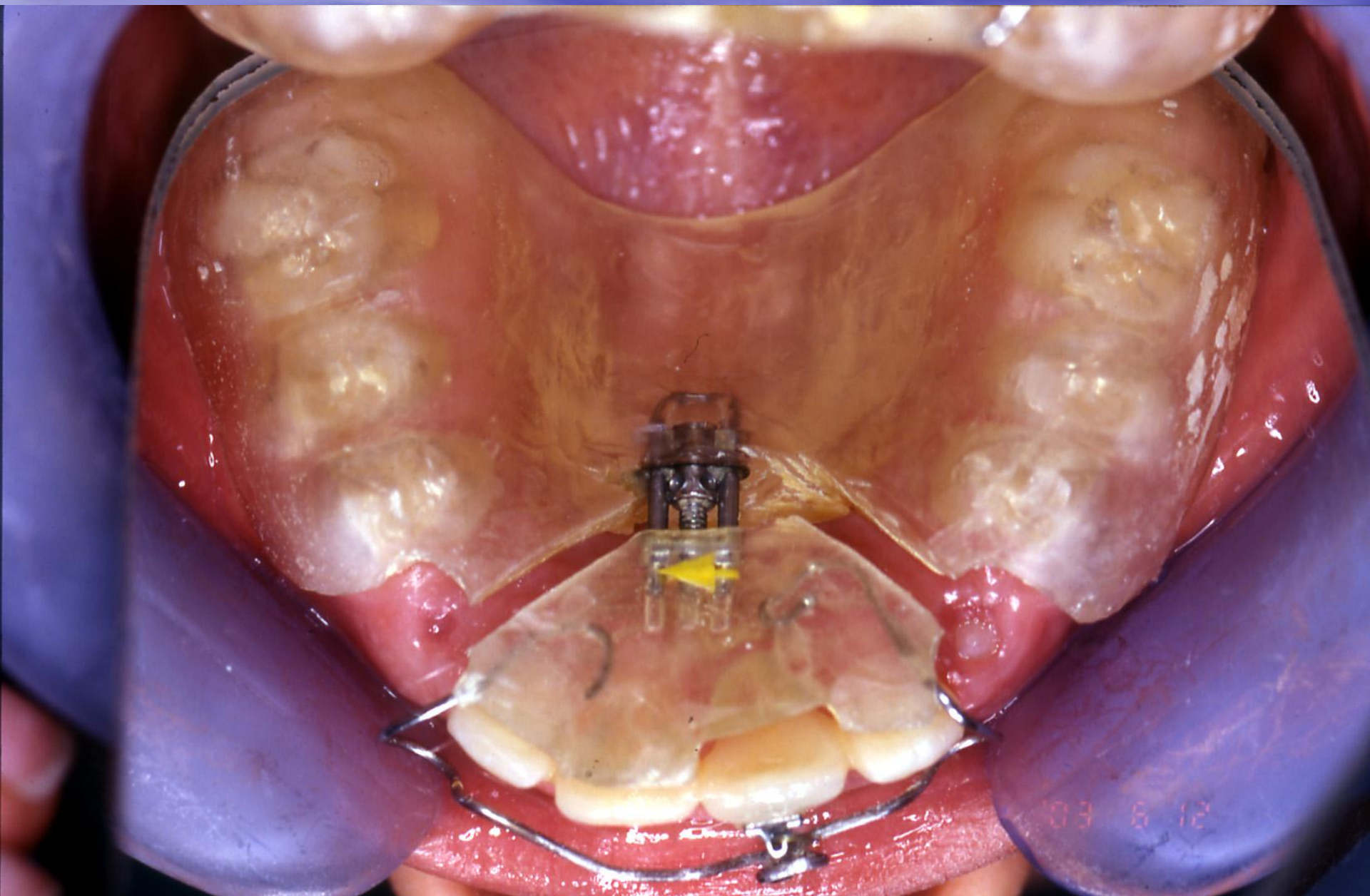














26 5'04



























801 45



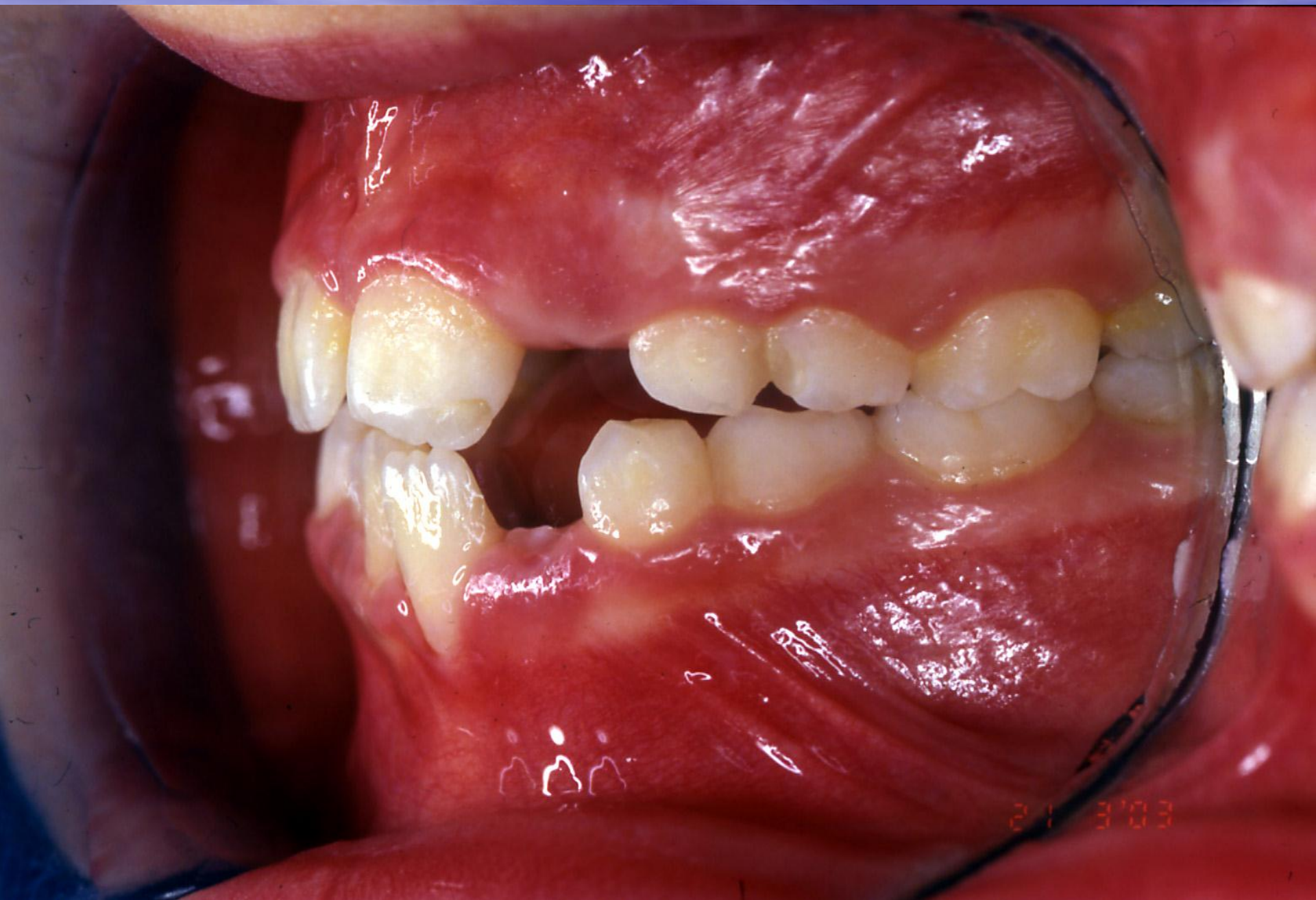


84 3'03





EDGE P5





ED'E 15





22 3'04



22 3'04



















18 3'03







1-4-03



