

INSTRUMENTS FOR DENTAL EXTRACTIONS



THE EXTRACTION SYSTEM FROM PEGASOS4D MODEL: HAUPTNER

Edition: Johann Heinrich Friedrich Günther



Comments on Model and Edition

Model Hauptner: The development and construction of these instruments was supported by the company Hauptner. Hauptner has more than 150 years experience on making instruments and produced in the past some of the best forceps available at that time.

Edition: Johann Heinrich Friedrich Günther

Who was J. H. Friedrich Günther and what influence did he have to the method of oral extraction of teeth?

He was born in 1794 in Germany. He got educated in Jena, Berlin and Hanover. After he had finished "Royal Equine Vetschool" Hanover in 1818 he started to work as a veterinary surgeon. Only one year later he was called by the school to become a teacher. Apart from his work at the vetschool he ran a private clinic where he taught the older students the practical part. Additionally he was an inspector at the Marstall and gave lessons at the military academy. Since 1840 he did research as well.

In 1847 he became the director of the Hanovarian vetschool. He strongly increased the level of education of veterinary surgeons during that time.

Alongside teaching he did a tremendous high quality work concerning the development and construction of surgical instruments. Furthermore, he gathered a comprehensive collection of diseased teeth. He is, indeed, considered as a founder of the equine dental surgery. Together with his son he wrote a booklet about horses' teeth which was published in 1859, one year after he had died.

Even 50 years after his death his extraction forceps were widely used and highly valued. He was doing oral extraction of equine teeth at a high level. Unfortunately this knowledge got lost over the following century. His early work is only little known and it is a mission to make it accessible again to veterinarians. His early literature of 1859 is highly recommended because it is still up to date in many respects. In order to support the rediscovery of his work we named this forceps and spreader line after him: Edition "Günther".



The Spreader and Forceps System was developed to improve oral extraction techniques in equine dentistry.

Great efforts have been invested to design the instruments as ergonomic and efficient as possible. The different sizes of spreader blades enable a standardized stepwise working process. Thereby, the duration and success rate of the extractions are influenced very positively.

The extreme precision of the joint creates the possibility to disassemble and reassemble the single halves of the instruments. It enables a variety of combinations that has not been available yet, like the combination of spreader and forceps within one instrument. It is most helpful in cases of slab fractures and very tight interdental spaces especially in the lower jaw. It also enables a thorough cleaning of all parts.



Manufacturing

- Instruments are made of heat-treated surgical stainless steel.
- The body is milled out of one piece on a 5-axis-CNC-milling centre.
- The spreader inserts are laser-welded and labeling is done with a laser marking system.
- The construction was tested with FEM-analysis and does still have, at a 80 kg handle pressure, a safety factor of 3.
- Made in Germany*.
- 5-year warranty.

General notes on maintenance

The possibility to disassemble the instruments enables easy and thorough cleaning. This should be done after each use. From time to time the fulcrum pin should be treated with surgical instrument silicone spray.

All instruments are fully autoclavable and chemically disinfectable.

MOLAR SPREADERS

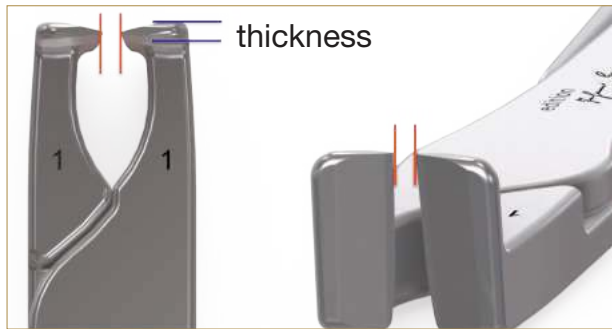
Molar spreaders are used to loosen the periodontal ligament and hence the tooth, through applying it to the interdental space.

There are three different spreader sizes. They allow a standardized stepwise working process. This enables a very careful and crown-saving work. It significantly improves the success rate of oral extractions.



Art.-No. #	Description
PEGA_320001	Molar Spreaders No. 1 – thickness 4 mm
PEGA_320002	Molar Spreaders No. 2 – thickness 5 mm
PEGA_320003	Molar Spreaders No. 3 – thickness 6 mm

Differences between No. 1–3



Molar Spreader No.1, the thinnest one with a 4 mm (0.16 inches) thickness (blue), does additionally have a cleft (red) between the jaws. Therefore, the handles don't need to open that far. This enables a more ergonomic first spreading step. One can apply a much more controlled force. This is especially helpful in case of fragile teeth.

The varying jaw thickness enables different spreading effects.

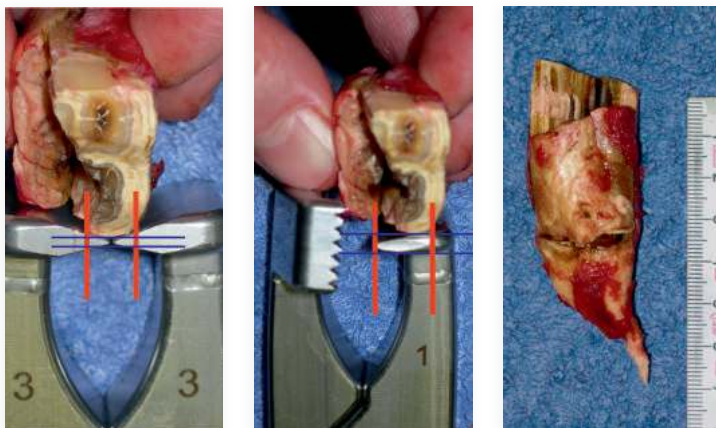
Spreader No. 1 – Narrow – the 4 mm (0.16 inches) thickness works much finer than No. 2 – Medium. No. 1 is mainly used as the first step spreader for the maxillary cheek teeth because they are wider than mandibular cheek teeth.

Spreader No. 2 – Medium – the 5 mm (0.19 inches) thickness works for the upper jaw as a second step and for mandibular cheek teeth as a first step.

Spreader No. 3 – Wide – the 6 mm (0.24 inches) thickness is used only partially (1/3-2/3) for the maxillary cheek teeth and up to full effect for mandibular cheek teeth.

It is recommended to use the forceps to loosen the tooth with rotational movements between the spreading steps, otherwise the risk of breaking the tooth/roots will increase.

Interchangeability



Additionally, the application of spreaders in combination with forceps is possible thanks to its interchangeability. This is especially helpful in cases where the interdental space is not wide enough to use conventional spreaders. This is the case in slab fractures and for the lower jaw.

Cavity: one has to be careful on side of the forceps part otherwise breakage of the tooth can occur.

EXTRACTION FORCEPS



Extraction forceps are used to further loosen teeth with rotational and tilting movements and finally to extract the teeth in combination with a fulcrum.

The **Extraction Forceps No. 1** is particularly helpful for mandibular cheek teeth extractions but can also be used for the upper jaw.

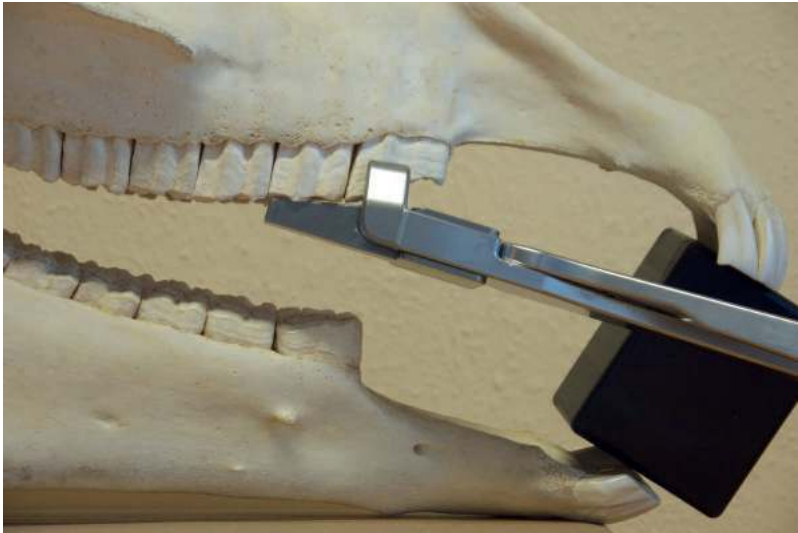
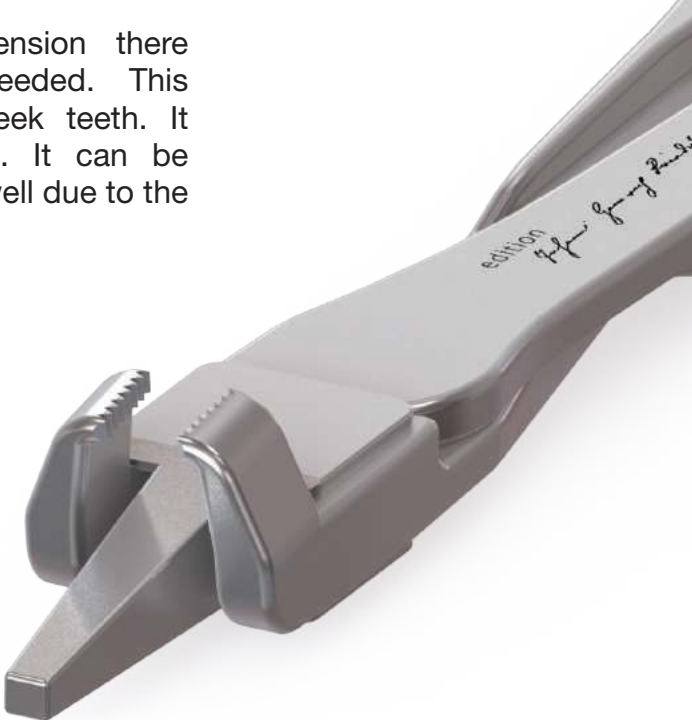
The **Extraction Forceps No. 2** is specifically designed for the wider maxillary cheek teeth. The Extraction Forceps can be disassembled and reassembled again in many different ways like the spreaders.

For horses with small heads we developed the "**Pony Model**". The actual version is dedicated to **Professor Padraic Dixon** from the University of Edinburgh who, at the end of the 20th century, made great efforts to re-introduce oral extraction techniques.



REVERSE FULCRUM

Thanks to this new Reverse Fulcrum Extension there is no extra Reverse Fulcrum Forceps needed. This system works both for lower and upper cheek teeth. It is especially recommended for 06 and 07's. It can be a quite helpful approach for lower 09 and 10 as well due to the curved nature of these teeth.



Art.-No. #	Description
PEGA_321020	Molar Forceps – Pony
PEGA_321001	Molar Forceps No. 1 – large
PEGA_321002	Molar Forceps No. 2 – large
PEGA_321010	Reverse Fulcrum Extension (fits Molar Forceps No. 1 and No. 2)



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