

TONGUE MUSCLE REHABILITATION DEVICE



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Invention



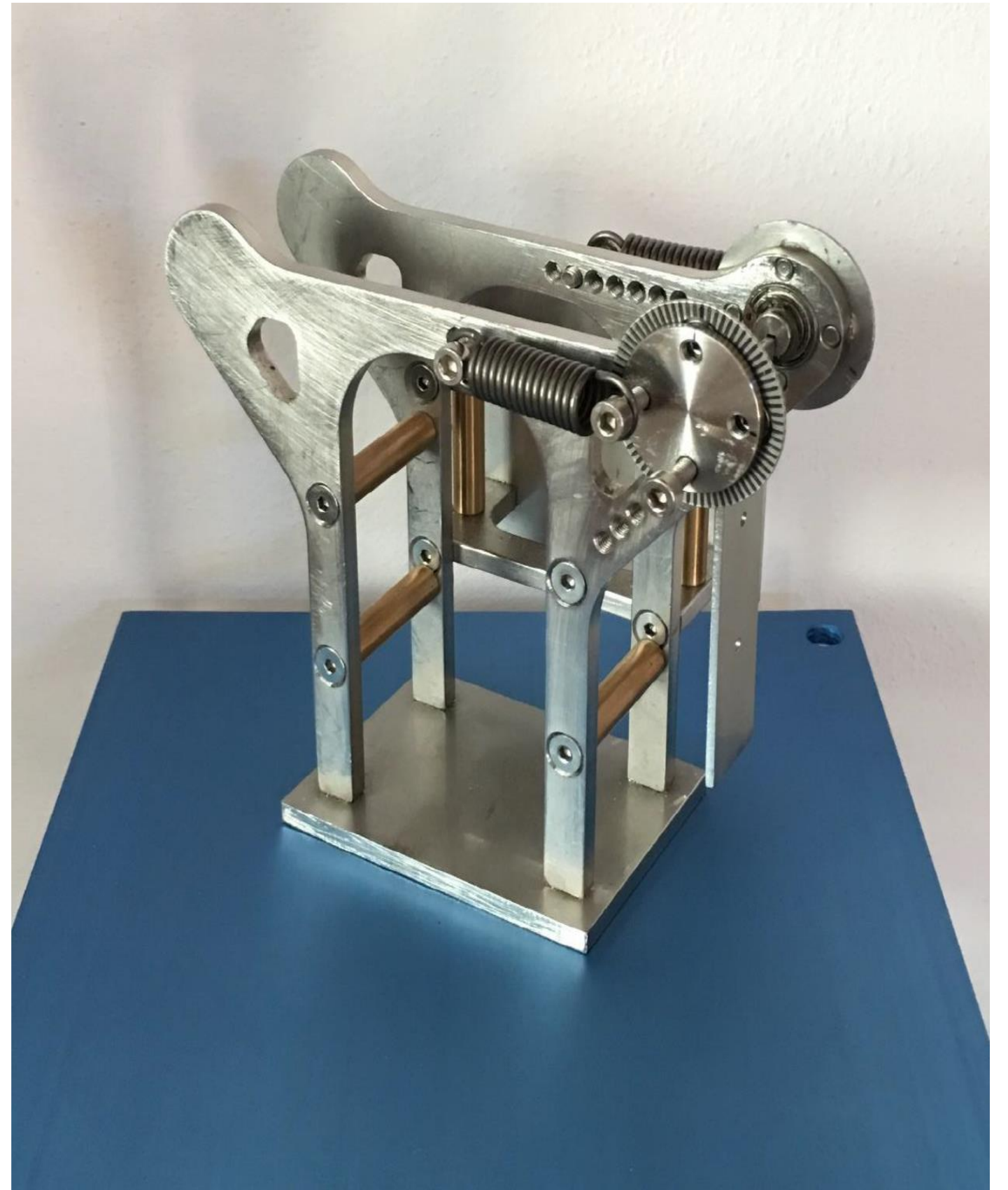
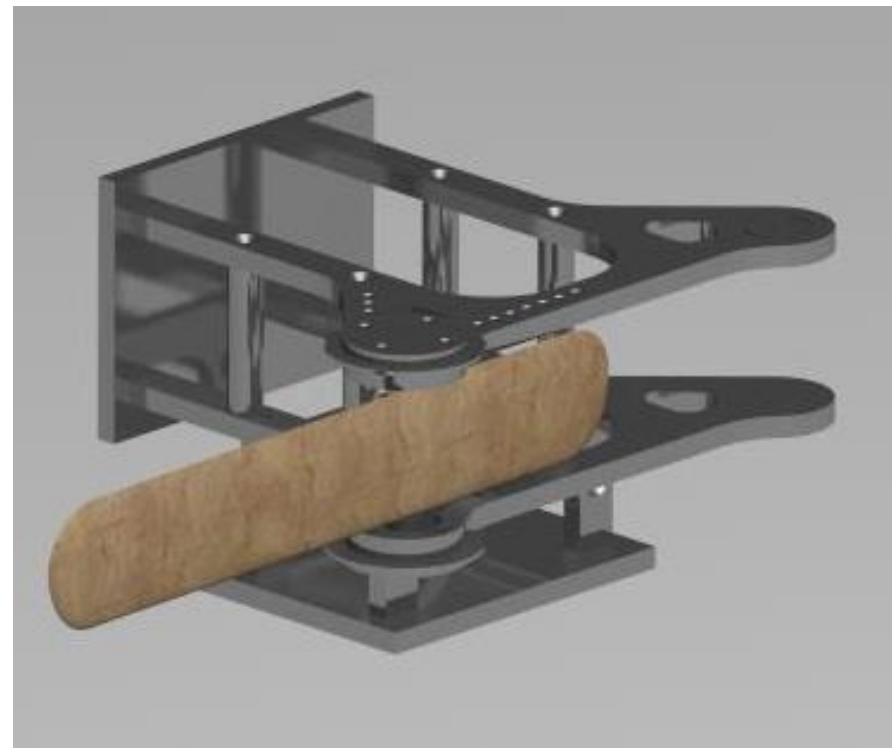
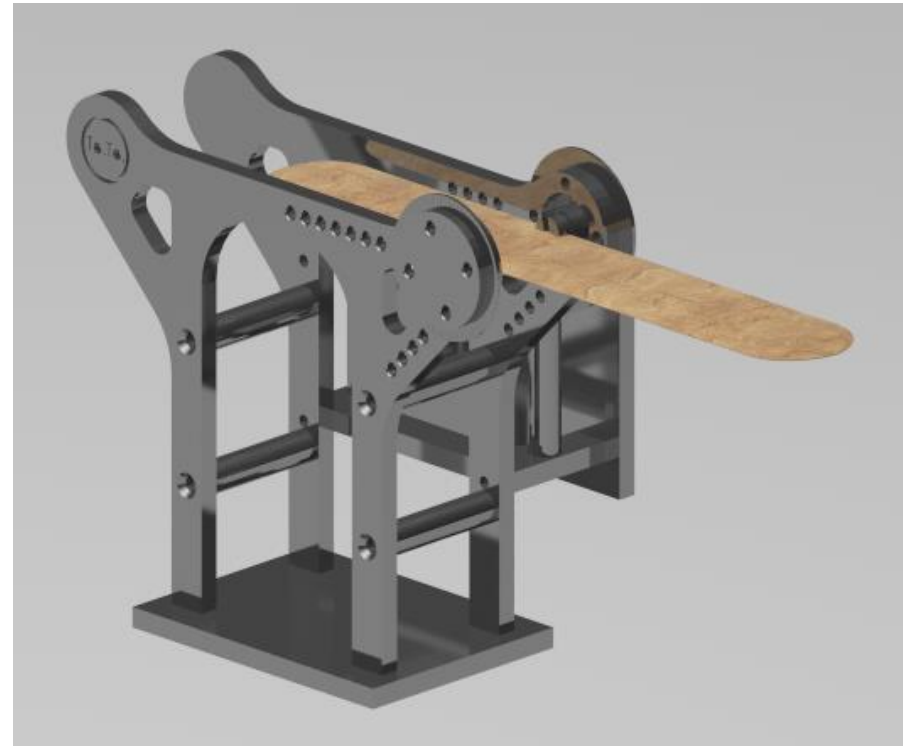
The invention consists of a **novel experimental set-up for the muscular rehabilitation of the tongue**, which is necessary for the restoration of motility and physiological function of the organ for the purpose of adequate swallowing in patients, who are post-stroke or otherwise have impaired tongue motility.

For the rehabilitation, an instrument that is placed close to the mouth, externally to it, able to 5 different exercises of lingual pushing, has been designed and manufactured.

The advantages in using this technology are:

- the standardization of procedures;
- the possibility of adapting the therapy to the individual patient;
- the possibility of verifying the effectiveness of the treatment;
- the simplicity and economy of the process.

Drawings
& pictures



Industrial applications



Applicability in:

- rehabilitation.
- speech therapy.

The invention makes it possible to perform all the exercises commonly proposed manually by speech therapists with a single apparatus, making it possible to standardize them. For each exercise it is possible to adjust, in fact, the resistance of the tongue depressor and to know the strength of the lingual thrust, given the possibility of adapting to each patient the resistance appropriate to his condition. The **adjustment of passive resistance** is made by means of elastic bands similar to those used in dentistry or springs, with a known stiffness. As result, the force transmitted to the tongue depressor, opposing the movement of the tongue itself, can be measured.

Possible developments



To date, there is no instrument available on the market that allows all the necessary exercises for tongue rehabilitation. The exercises can be performed in a **standardized manner, customized to each patient, quickly and effectively**. The instrument is placed totally outside the oral cavity, so it does not require expensive sterilization processes; the only part that comes into contact with the tongue is the tongue depressor, which is sterile and disposable.

Future partnerships are required to increase the potentiality of the invention and applications of the device may involve medical device manufacturing companies and rehabilitation centers offering speech therapy services.

For more information:



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