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- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
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(54) Title: AN ORTHOPEDIC DEVICE FOR MIDFACIAL BONE STRUCTURE

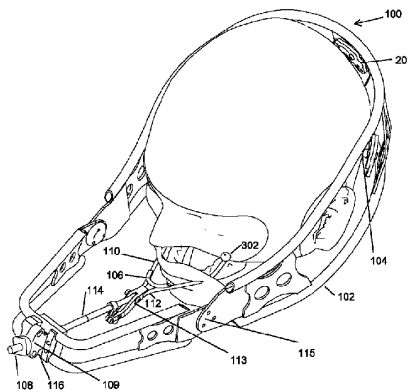


FIG. 1A-0

(57) Abstract: The present subject matter disclosed herein consists of a dento-facial orthopedic device configured to allow the user to advance their mid-facial bones relative to their skull, giving the user the ability to gradually open their airway to improve breathing and their facial structure. The device comprises a brace that is configured to be wrapped around a user's skull and anchored to it with screws that are designed to screw into the skull. An orthodontic "Y" bracket connects the brace to bony structures within the mid-face, such as the maxilla, via ball and socket joints implanted inside the mouth, or via a tooth-borne connection to a removable appliance designed to fit around the teeth of the upper jaw. The "Y" bracket is connected to the brace via a rotating slot attached to the brace that the tail end of "Y" bracket inserts into. The tail end has a screw thread, with a bolt connected to it at the anterior end of the slot. The user may turn the bolt along the screw thread of the tail end of the "Y" bracket to pull it through the slot, pulling the mid-face in the anterior, or desired direction, causing separation between cranial sutures under tension, which may generate bone at the sutures. The "Y" bracket can be adjusted in multiple angles, including up and down, to pull the mid-face at desired angles. The device may also comprise of a mouth-piece for the teeth of the lower dental arch that is anchored to the "Y" bracket via a second rod that may be spring-loaded, which slides through a sleeve on a screw thread which can be advanced using a bolt to advance the lower jaw during sleep with its weight distributed onto the brace, and to keep open the user's airway during sleep.

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