H. FRIEDLAND.
ARTIFICIAL TOOTH CROWN.
APPLICATION FILED APR. 16, 1902.

NO MODEL.
To all whom it may concern:

Be it known that I, Hermann Friedland, a subject of the Grand Duke of Hesse, residing at Mayence, in the Grand Duchy of Hesse, Empire of Germany, have invented a new and useful Artificial Tooth-Crown, of which the following is a specification.

My invention relates to improvements in artificial tooth-crowns; and the object of my improvement is, first, to provide an all-porcelain dummy tooth-crown or both sides with two recesses; second, to provide a vertical plane near the front or face of the tooth-crown, and, second, to provide this dummy tooth-crown with one or several horizontal dowel-pins passing from the one recess to the other recess. The artificial tooth-crown so shaped or constructed affords special advantages. It can be used both with metal fittings and with vulcanite fittings. In the former case two metallic plates or strips are let into the recesses on both sides, while at the same time they are stuck on and soldered up with the dowel-pin or dowel-pins, so as to afford a large soldering-surface. Then the teeth are connected by soldering together the adjacent lateral plates or strips of adjacent tooth-crowns. In the other case when vulcanite fittings are used the projecting ends of the dowel-pin or dowel-pins, which may be either left straight or bent somewhat like a hook, are embedded in the plastic mass filling up the recesses. In all cases a much firmer hold of the tooth-crown in its center is obtained than hitherto by the usual rear attachments.

Moreover, the new tooth-crown presents two further essential advantages—viz., that the metal or vulcanite fittings do not appear on the face or front and that no screwed pin and nut are required, such as were hitherto used for securing a tooth-crown on a tooth root or stump and which are liable to get chipped off.

In the accompanying drawings, Figure 1 is a side view, and Fig. 2 a plan view, of this improved tooth-crown having strips let in laterally and soldered together by pins, while Fig. 3 is a side view, and Fig. 4 a plan view, of a similar tooth-crown without the strips and with the pin ends projecting.

Instead of the single pin c shown in the drawings several such pins may also be provided, which can be burned in during the manufacture or only subsequently fastened to the tooth in any desired manner.

The lateral recesses (indicated by a on the drawings) serve in the case of metal fittings for receiving soldering-strips b, while for vulcanite fittings they are filled in with the plastic material. With metal fittings the soldering-strips b are fully embedded in the tooth, so as in no way to project. They are attached to the same by means of a pin c or pin in case several such pins are employed, the plates being stuck on the said pins and soldered together. In this manner the lateral soldering-strips b have an immovably firm hold in the tooth, while they are protected from turning by the long vertical planes d, placed at a short distance from the pin c. In vulcanite fittings the laterally-projecting ends of the pins can be either left straight or curved or bent in any suitable manner into a hook shape. In the subsequent filling up of the lateral recesses a of the teeth with the plastic mass a much firmer hold is attained by means of laterally-projecting pin ends c than in the case with the usual rear-hook-attachment pins.

By means of this improved tooth construction the biting off or chipping off of the teeth during mastication, which so frequently takes place with the usual rear-attachment devices, is entirely avoided. Looseness and premature breaking away of the teeth from the vulcanite plate can also no longer arise. With metal fittings a lateral soldering can be effected which avoids the necessity of any interstices between the separate teeth of a row, whereby the teeth are enabled to hold better in consequence of the larger lateral holding-surfaces. The lateral soldering also permits of the omission of base-plates in the production of entire sets of teeth or in bridgework; but even for sets of teeth with base-plates teeth having the improved lateral soldering or attachment afford a better hold than teeth with the usual soldering upon the rear or inner face.

Having now particularly described and ascertained the nature of my said invention and...
in what manner the same is to be performed, I declare that what I claim, and desire to secure by Letters Patent, is—

1. An all-porcelain dummy tooth-crown having on both sides two recesses reaching to vertical planes near the front or face and provided with one or several horizontal dowel-pins passing from the one recess to the other recess, in combination with two metallic strips let into said recesses and soldered to said dowel-pins for affording each a large soldering-surface.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HERMANN FRIEDLAND. [L. S.]

Witnesses:

EMIL HANAN,

WALTER HOUSING.