(No Model.)

## G. A. JÜTERBOCK. ARTIFICIAL TOOTH PLATE.

No. 494,065.

Patented Mar. 21, 1893.

FIG.I.

FIG. 5.

FIG. 6.

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FIG. 2.



FIG. 3.



FIG. 4.

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## UNITED STATES PATENT OFFICE.

GUSTAV ADOLF JÜTERBOCK, OF BERLIN, GERMANY, ASSIGNOR TO CARL OTTO JÜTERBOCK, OF PENGE, ENGLAND.

## ARTIFICIAL-TOOTH PLATE.

SPECIFICATION forming part of Letters Patent No. 494,065, dated March 21, 1893.

Application filed December 21, 1892. Serial No. 455,918. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV ADOLF JÜTER-BOCK, a subject of the Emperor of Germany, residing at Berlin, in the Empire of Germany, 5 have invented certain new and useful Improvements in Strengtheners for Vulcanite Bases of Artificial Teeth, of which the follow-

ing is a specification. The invention relates to improvements in 10 metallic strengtheners for the vulcanite bases of artificial teeth. Heretofore such strengtheners have been made from sheet metal stamped to the form and design desired; such description of strengthener however has had 15 the disadvantage that it could not be effectually embedded in and connected with the vulcanite base, but lie more or less on the surface. Now according to my invention I form such strengtheners of flattened wire, which, in order 20 toobtain greater holding power in the strengthener, I, by preference, groove on one or both sides thereof. With this flattened wire I form a filigree design of any suitable pattern with the wire arranged edgewise therein, that is to 25 say, with the edges vertical to the general surface of the strengthener. I also bind this filigree strengthener firmly together by attaching to the back thereof a strip of flattened wire, which runs in the direction necessary to 30 impart the greatest strength thereto.

My invention is illustrated in the accom-

panying drawings, in which: Figures 1, 2 and 3 represent face views of strengtheners of different patterns construct-35 ed according to my invention for use with the base for the teeth of the upper jaw. Fig. 4 is a face view of one form of my improved strengtheners for the base to be used with the lower jaw. Fig. 5 is an edge view of 40 Fig. 1, and Fig. 6 is a cross section, drawn to an enlarged scale, of grooved or ribbed wire such as I prefer to employ in the construction of my improved strengtheners.

The strengtheners are formed of flattened 45 wire a, preferably ribbed or grooved and made into any suitable filigree design with the wire arranged edgewise therein.

The process of manufacture is similar to that used for producing ordinary filigree jew-

elry, namely, lengths of wire are made to the 50 desired shape and are soldered together to form the required design. In some cases I also bind this filigree strengthener firmly together by attaching to the back thereof a strip of flattened wire b, as illustrated at Figs. 55 1 and 5, and which will run in the required direction to impart the greatest strength to the particular design of strengthener to which it is applied. Strengtheners thus formed can be readily bent to the shape required for 60 application to various forms of bases. A strengthener thus formed, when applied to the plastic rubber compound to form the base of artificial teeth, will, consequent on the direction in which the flattened wire is ar- 65 ranged in the strengthener, readily become embedded in the surface of the plastic material to form the base, and the grooves in such wire will hold it firmly in position in the base; the strengthening strip at the back of 70 the strengthener will also assist in holding the latter firmly in the base. When the plastic rubber compound forming the base has been vulcanized, the surface thereof can be filed and smoothed without injury to the strength- 75 ener. The strengthener formed as above described also imparts an elegant appearance to the base when finished.

Having fully described my invention, what I desire to claim and secure by Letters Pat- %

1. A strengthener, for the vulcanite bases of artificial teeth, formed of flattened wire arranged edgewise in a filigree design, said wire being grooved on the sides of the openings in 85 the design thus formed substantially as herein shown and described and for the purpose stated.

2. A strengthener for the vulcanite bases of artificial teeth formed of flattened wire ar- 90 ranged edgewise in a filigree design combined with a strip of flattened wire attached to the back thereof, substantially as herein shown and described and for the purpose stated.

GUSTAV ADOLF JÜTERBOCK.

Witnesses:

W. H. EDWARDS, W. HAUPT.