

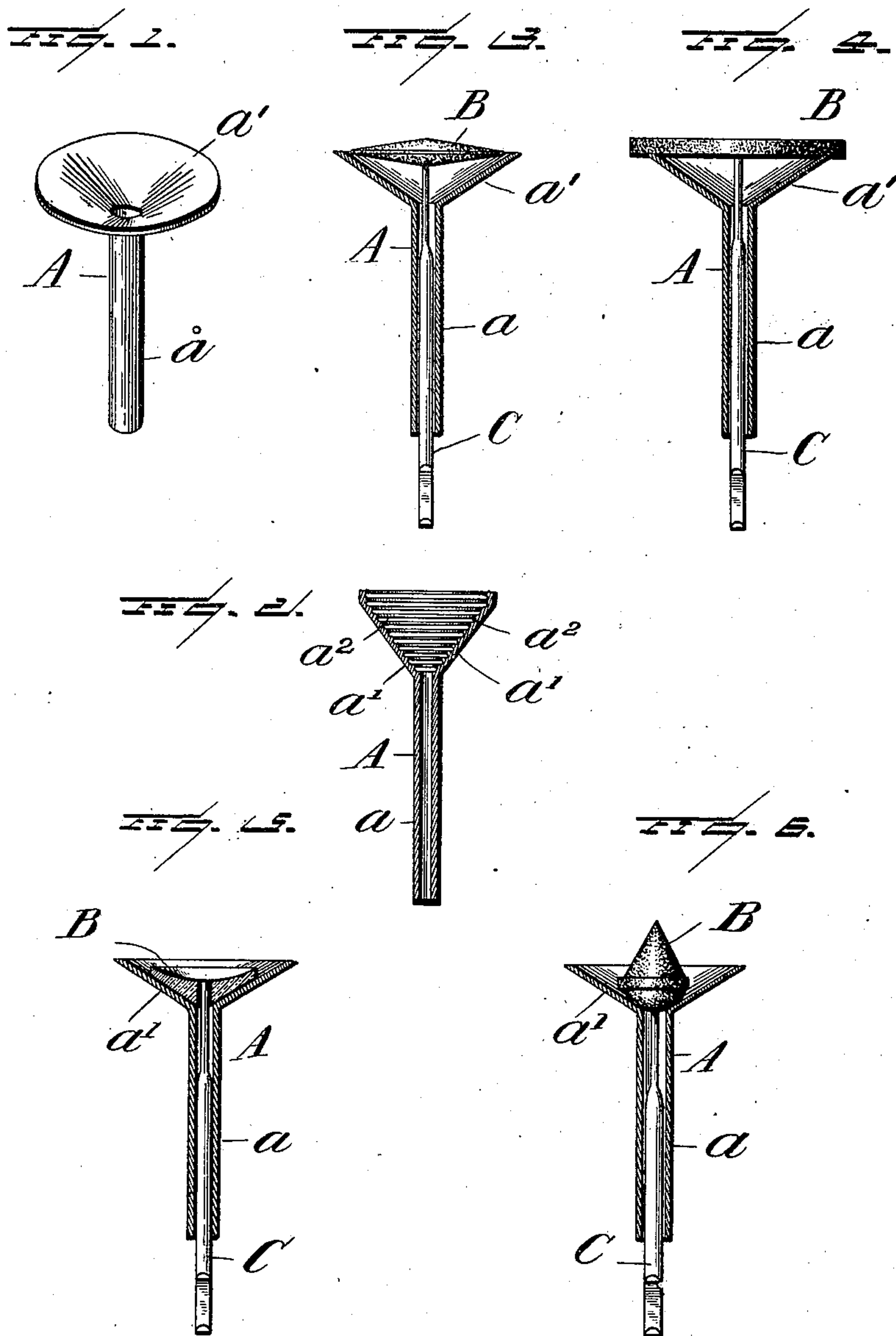
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Patented Nov. 27, 1900.

D. O. M. LE CRON.
DENTAL APPLIANCE.

(Application filed Sept. 14, 1900.)

(No Model.)



WITNESSES:

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DANIEL O. M. LE CRON, OF ST. LOUIS, MISSOURI.

DENTAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 662,538, dated November 27, 1900.

Application filed September 14, 1900. Serial No. 30,047. (No model.)

To all whom it may concern:

Be it known that I, DANIEL O. M. LE CRON, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Dental Appliances; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My present invention relates to the mounting of carborundum and like stones on mandrels. The invention is more particularly concerned with the practice of cementing the stones to the mandrel-tips, as distinguished from the employment of means by which the said parts are secured by being clamped or screwed together, which means are comparatively costly and preclude the use as mandrels of worn-out burs and other like tools.

The practice of cementing the stones to the mandrels, though followed to some extent, is attended with the difficulty of accurately mounting the stone to bring its axis into exact line with that of the mandrel.

The object of my invention is to facilitate the work of mounting the stones and to insure absolute accuracy of axial alinement of the mandrels and stones regardless of the form and size of the latter.

The nature of my invention will be readily comprehended, reference being had to the following detailed description and to the accompanying drawings, in which—

Figure 1 is a perspective view of an alining device embodying my invention. Fig. 2 is a vertical central sectional view of another form of alining device embodying my invention. Figs. 3, 4, 5, and 6 are vertical central sectional views showing in connection with the device a number of mounted stones of different form and size.

Referring to the said drawings by letter, A denotes the alining device, B represents the carborundum or other like stone, and C the mandrel, which latter may be formed from a worn-out bur, drill, or like tool.

The device as shown in Figs. 1, 3, 4, 5, and 6 consists of a tubular portion or shank a ,

which receives in practice the mandrel, and a' is a cup-shaped head formed, preferably, integrally with the tube or shank a and serving as a support for the stones during the mounting operation. The upper face of the head is inclined from the central aperture, communicating with the tube or shank, upwardly to the outer edge, whereby the stones are supported throughout their edge regardless of variation in form or difference in diameter, and where the diameter of the stone exceeds the greatest diameter of the head the outer edge of the latter affords the support for the stone, as indicated in Fig. 4.

In Fig. 2 is shown an alining device having the same general form of head, only the upper face thereof instead of being plain, as shown in the other figures, is stepped, whereby a plurality of annular shoulders $a^2 a^2$ are provided, each shoulder forming a support for the disk of corresponding diameter.

The stones are centrally apertured or recessed to receive the upper end of the mandrel, and in practice previously to mounting a small quantity of cement or other adhesive material is placed in the aperture or recess in the stone or on the end of the mandrel, or the cement may be applied both to the mandrel end and stone aperture or recess. The mandrel is then positioned to bring its upper end beyond the head-aperture, and the stone being placed in or on the head pressure is applied to both the stone and mandrel to assemble them, and sufficient time being allowed for the cement to harden the operation is complete. The pressure against the stone is preferably applied centrally, whereby it is prevented from tilting. When the cement has become set, it will be found that the stone and mandrel are in exact axial alinement. Such result is readily attainable regardless of the size and form of the stone and regardless also of the relative size of the upper end of the mandrel and that of the recess or aperture of the stone.

I claim as my invention—

1. An alining device for the purpose specified comprising a holder for the mandrel and a support for the stone.

2. An alining device for the purpose specified comprising a holder for the mandrel and a concave support for the stone.

3. An alining device for the purpose specified comprising a tubular shank receiving the mandrel and a cup-shaped head forming the support for the stone.

5 4. An alining device for the purpose specified comprising a holder for the mandrel and a stepped concave support for the stone.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL O. M. LE CRON.

Witnesses:

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