

(No Model.)

L. E. CUSTER.
POLISHING DISK FOR DENTISTS.

No. 387,581.

Patented Aug. 7, 1888.

Fig. 1.

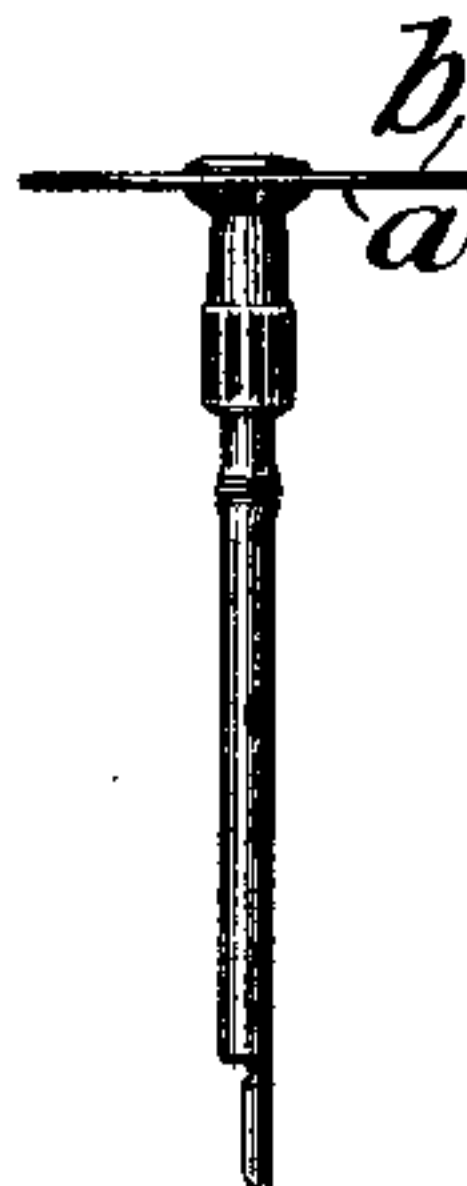


Fig. 2.

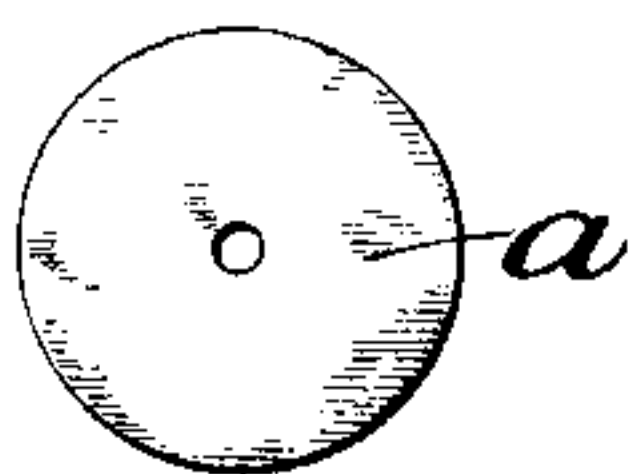


Fig. 3.

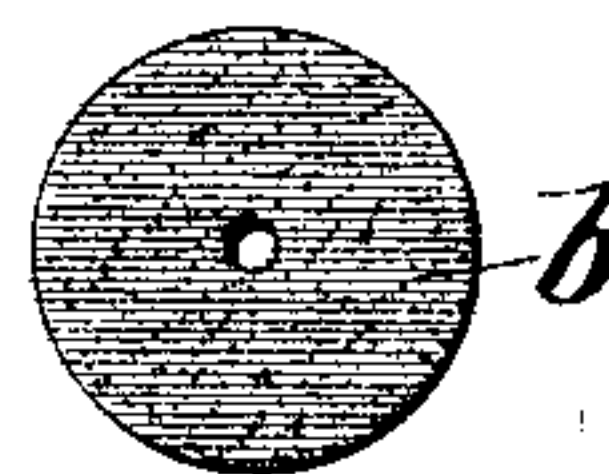


Fig. 4.

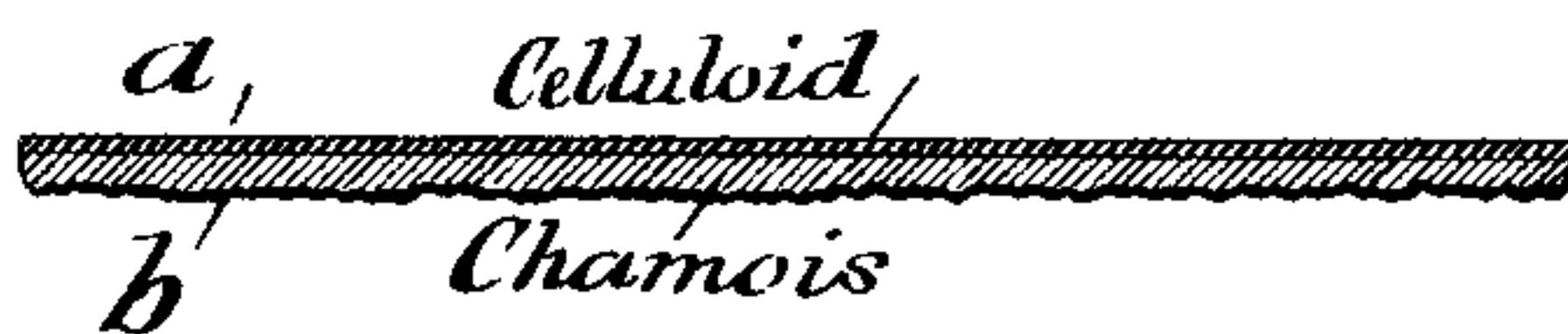


Fig. 5.



WITNESSES:

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Levitt E. Custer,

INVENTOR;

By his atty
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UNITED STATES PATENT OFFICE.

LEVITT E. CUSTER, OF DAYTON, OHIO, ASSIGNOR TO THE S. S. WHITE
DENTAL MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYL-
VANIA.

POLISHING-DISK FOR DENTISTS.

SPECIFICATION forming part of Letters Patent No. 387,581, dated August 7, 1888.

Application filed March 2, 1888. Serial No. 265,936. (No model.)

To all whom it may concern:

Be it known that I, LEVITT E. CUSTER, a
citizen of the United States, residing at Day-
ton, in the county of Montgomery and State
5 of Ohio, have invented certain new and useful
Improvements in Polishing-Disks for Dentists;
and I do hereby declare the following to be a
full, clear, and exact description of the inven-
tion, such as will enable others skilled in the
10 art to which it appertains to make and use the
same.

Abrading disks for dentists' use, simple and
composite, have been made; but a desideratum
not heretofore attained has been to provide a
15 polishing-disk which shall be thin and flexible,
while sufficiently stiff to do the work required,
and which shall have a soft instead of an abrad-
ing or cutting polishing-surface. Felt and
other disks have been made with a soft pol-
ishing-surface, but they are too thick. Com-
20 posite disks have also been provided, but they
have always a cutting or abrading surface.

I have attained the ends desired by devis-
ing a composite disk made of a thin backing
25 of prepared paper or celluloid, or other suit-
able thin and flexible material of the required
stiffness, and a soft operating-surface—such
as very thin chamois-leather, flock, felt, &c.—
applied and firmly united thereto. This gives
30 the required soft polishing surface, while the
disk may be made very thin.

I have particularly set forth my claim at
the close of this specification.

In the accompanying drawings, Figure 1 is
35 a view of my improved disk mounted on a
mandrel ready for rotation and operation by
the rotary chuck or tool-carrier of a dental
engine. Fig. 2 is a view of the back, and
Fig. 3 a view of the soft-surfaced operating-
40 face of the disk. Figs. 4 and 5 are sections
through the composite material of which the
disks are or may be made, the thickness of
which is exaggerated, Fig. 4 being supposed
to represent a celluloid backing or body with
45 a chamois facing, and Fig. 5 a paper backing
with a felt facing.

The material may be made in sheets and the
disks then stamped or punched out by a suit-
able cutter, after the fashion, for example, of
50 a gun-wad punch. This material may be a

paper or parchment backing, *a*, and a chamois-
leather or felt facing, *b*, to constitute the pol-
ishing-surface. The paper may be thin and
flexible, while possessing the requisite stiff-
ness to carry the soft facing to do the work re- 55
quired and permit the entrance of the disk
between the approximate surfaces of the teeth
to be polished. If paper is used, it should be
water-proofed by the use of shellac or in other
well-known ways. 60

The chamois-leather, if used for the soft
facing, is made very thin, and is applied to
the paper and united thereto by a suitable
cement, such as shellac, preferably under hy-
draulic pressure, so as to make a composite 65
body of the two, with the layers of paper and
leather permanently adherent.

Instead of the soft-leather facing, the thin
disks may be made of the paper backing var-
nished with shellac or copal varnish, and when 70
partially dry have a soft facing added by
shaking over the prepared paper fine flock or
felt, for instance, which adheres by the drying
of the varnish, the loose particles being blown
off. 75

If the thin carrying-body is to be, say, of
thin celluloid, instead of paper, it is varnished
with a solution of gum-camphor in alcohol to
soften the surface, and the thin layer of, say,
chamois-leather, is then applied and the ma- 80
terial dried under pressure, so as to make the
material permanently composite with a soft
face. A like union of the celluloid and leather
may be effected by heat and pressure.

My object has been to produce a very thin 85
polishing-disk for dentists, having a soft
operating-surface, so that the dentist can
put the highest finishing polish on gold or
other fillings, especially such as occupy ap-
proximate situations and are separated from 90
the adjacent teeth by a space too narrow to
admit of any but a very thin disk, my disks
being usually not more than from one to two
hundredths of an inch in thickness.

I do not claim an abrading or a cutting disk 95
having a surface of sand-paper, emery, or
similar abrading matter impressed into the
surface of the disk; and I am aware that such
composite disks have heretofore been made—
that is to say, with a thin backing or carrying- 100

body, an applied surface of paper, leather, or
other material, and a third or abrading or cut-
ting surface of sand, emery, or other material
of that character. Such a disk is used for
5 dental operations of an entirely different
character from those to which my disk is
fitted, my disk being for the purpose of put-
ting on the final finish and polish by means
of a soft surface.
10 I claim—

A composite polishing-disk for dentists,
consisting of a thin carrying-body and a soft
working-surface thereon, such as chamois
leather, felt, &c., substantially as described.

In testimony whereof I affix my signature in 15
presence of two witnesses.

LEVITT E. CUSTER.

Witnesses:

ALBERT KERN,
HATTIE ROST.