

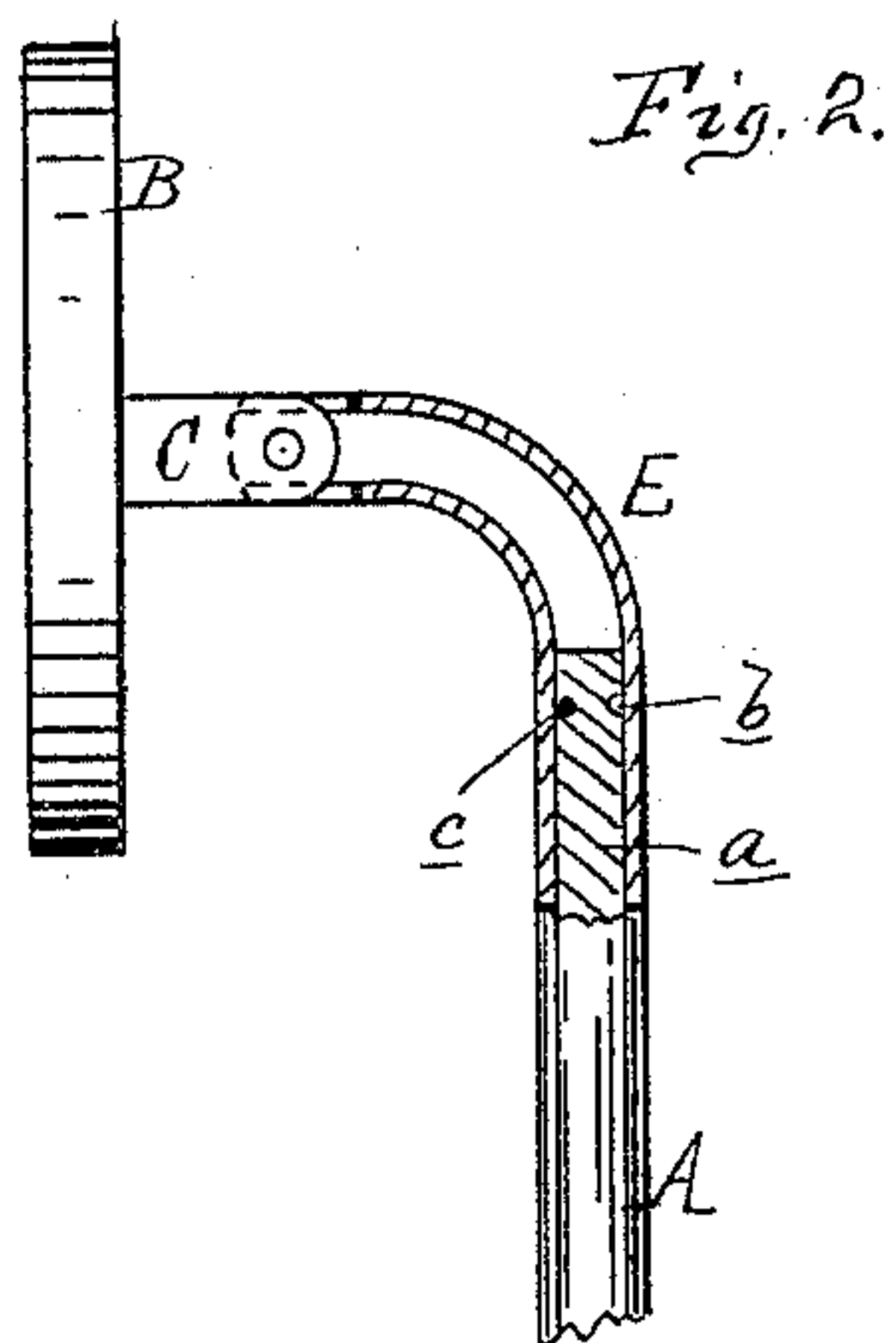
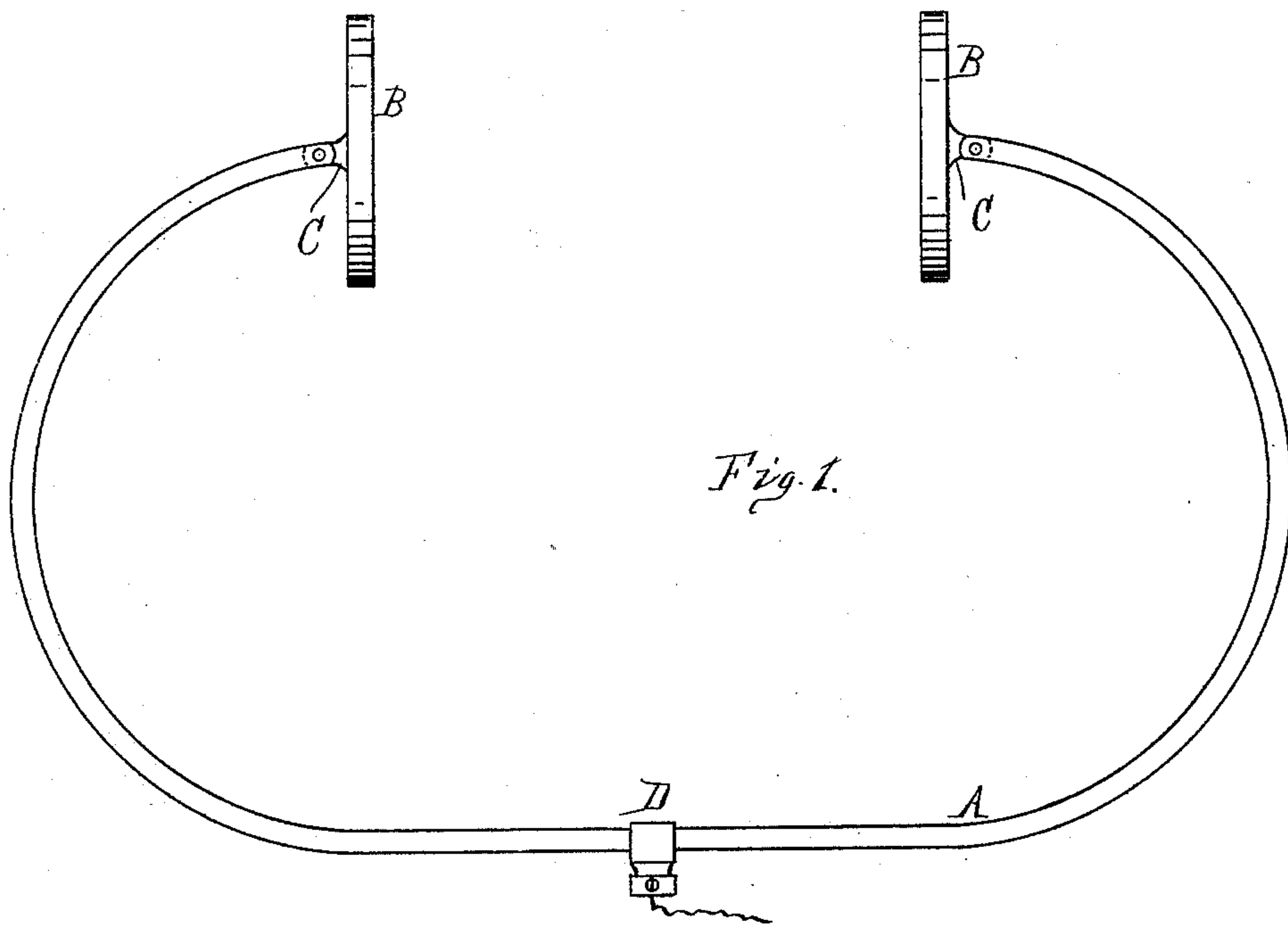
(No Model.)

W. P. HORTON, Jr.

ADJUSTABLE ELECTRODE FOR DENTAL PURPOSES.

No. 467,738.

Patented Jan. 26, 1892.



Attest:
Tr. Y. Val
J. B. Morgan

Inventor.
William P. Horton Jr
By N. S. Sprague
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM P. HORTON, JR., OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF
TO ANSEL B. JONES, OF SAME PLACE.

ADJUSTABLE ELECTRODE FOR DENTAL PURPOSES.

SPECIFICATION forming part of Letters Patent No. 467,738, dated January 26, 1892.

Application filed June 10, 1891. Serial No. 395,749. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. HORTON, Jr., a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Adjustable Electrodes for Dental Purposes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in electrodes.

The invention has for its object the construction of a dual electrode especially designed for use in dental surgery in the application of an electric current for the purpose of obtunding or deadening nerves under operation, and in such a manner that it can be placed upon the head of the patient, the disks adjusting themselves to the face. In the use of a device of this character the operator has both hands free for manipulating the tools required in the operation to be performed.

20 The invention consists in the peculiar construction, arrangement, and combinations of the parts, all as more fully hereinafter described, and pointed out in the claim.

Figure 1 is an elevation of my improved dual electrode. Fig. 2 is an enlarged section through one of the ends of the bow and electrode-disk, showing a modified form or manner of securing the parts together.

In the accompanying drawings, which form a part of this specification, A represents a bow, preferably formed of light spring-brass.

35 B represent electrode plates or disks, each of which is provided with a laterally-projecting arm C, which is hinged in any proper manner to the ends of the bow A.

D is a binding-post secured to the bow, and to this binding-post is attached one of the current-wires from a battery or electric-current producing device.

45 It will be readily seen that the bow can be placed upon the head of a patient in such a manner as to bring the electrode plates or disks in close proximity to the nerves to be operated upon or at the seat of the nerves

upon either side of the face, and that, once being adjusted to place, the slight spring of the bow will retain the electrodes as adjusted. 50 This leaves both hands of the operator free for use, as the operation being performed may require.

In practice when the device is applied to the head I insulate the electrode that rests against that side of the face where no work is to be done by placing a small piece of rubber between the electrode and the face, thus compelling the current to pass to the opposite disk or plate, and it also prevents all possibility of a "dividing of the current." 60

In the modification shown in Fig. 2 the ends of the bow are bent outwardly upon substantially parallel tangential lines. The ends of the bow are decreased in circumference, 65 as at *a*, and are designed to be received in the adjacent ends of the hollow elbows E. Near the ends of the reduced parts *a* there is formed an annular groove or channel *b*, with which engages a pin *c*, which is driven through 70 the walls of the elbows. This pin, while it holds the elbows upon the ends of the bows, admits of the elbows being turned in any desired radial direction.

There are various forms which the device 75 may take on in details of construction and still be within the spirit of my invention.

What I claim as my invention is—

In a device of the character described, in combination, a metallic bow provided with a binding-post, elbows pivotally secured upon the ends of said bow, and electrode-disks adjustably secured in the ends of said elbows, the parts being constructed, arranged, and operating substantially in the manner and 85 for the purposes described.

In testimony whereof I affix my signature, in presence of two witnesses, this 6th day of June, 1891.

WILLIAM P. HORTON, JR.

Witnesses:

H. S. SPRAGUE,
W. P. HORTON.