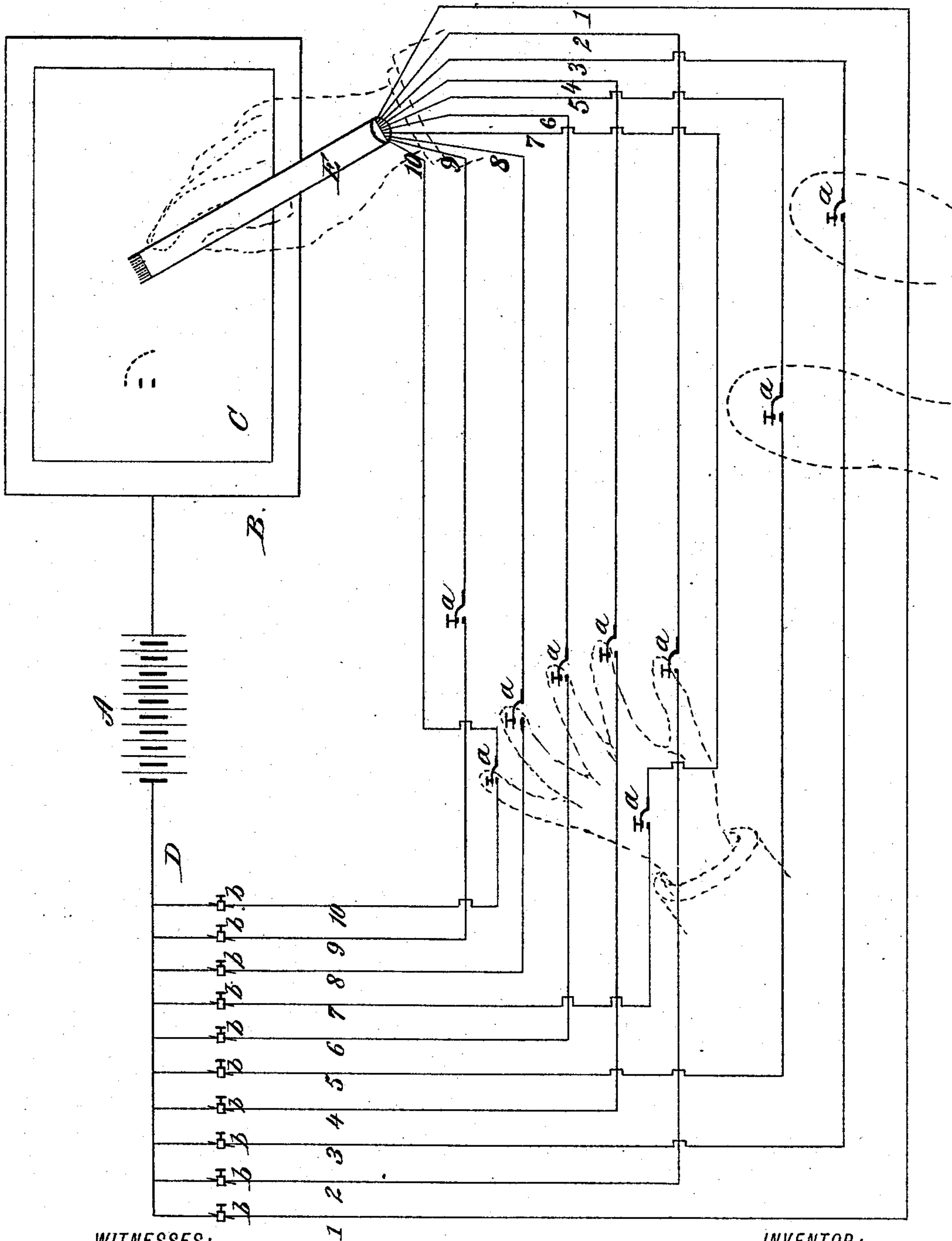


(No Model.)

A. S. COOPER.  
ELECTRIC STENOGRAPHIC PEN.

No. 417,407.

Patented Dec. 17, 1889.



WITNESSES:

*Donn Twitchell*  
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BY

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# UNITED STATES PATENT OFFICE.

AUGUSTUS S. COOPER, OF SANTA BARBARA, CALIFORNIA.

## ELECTRIC STENOGRAPHIC PEN.

SPECIFICATION forming part of Letters Patent No. 417,407, dated December 17, 1889.

Application filed January 2, 1889. Serial No. 295,267. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTUS S. COOPER, of Santa Barbara, in the county of Santa Barbara and State of California, have invented a new and Improved Electric Stenographic Pen, of which the following is a specification, reference being had to the annexed drawing forming a part thereof, which is a diagrammatic plan view of my electric stenographic pen.

The object of my invention is to construct a pen for stenography in which the record will be made through the medium of an electric current controlled by the feet and hands of the operator.

My invention consists in the combination, with a pen formed of a series of conducting-points, of an electric generator, a circuit, a series of keys to be operated by the hands and feet, a conducting-plate for receiving the paper on which the record is made, and a series of thumb-screws, so that the conducting-wires will be made interchangeable.

To one pole of the battery A is connected a metallic plate B, upon which is placed the prepared paper C for receiving the record. To the opposite pole of the battery is connected a conductor D, from which extend the branches 1 2 3 4 5 6 7 8 9 10. In each of these branches, except 1, is placed an open-circuit key *a*, and these several branches are connected with the electric pen E, which will presently be described. The keys *a* of the branches 2, 4, 6, 8, and 10 are arranged to be conveniently touched by the thumb and fingers of the left hand. Different combinations of these branches will represent the letters of the alphabet. The branch 7 is connected with the key *a*, which is arranged to be operated by the palm of the hand, while the key of the branch 9 is isolated, but arranged conveniently near the other keys so that it may be touched as occasion requires. The keys *a* of the branches 3 and 5 are arranged to be touched by the feet. By the opening and closing of the keys on the branches 3, 5, 7, and 9 and making different combinations with the same, and by moving the electric pen over the prepared paper in different

forms the prefixes, suffixes, and roots of the language written will be made. Word-signs can be supplied in the same manner.

The electric pen E is formed with a series of conductors, insulated from each other and ten in number, arranged in a handle of convenient size. They all can be formed of one metal, or they may be formed of different metals, so that they may be easily distinguished from each other.

The conductor 1 is in constant communication with the generator, so that whenever the pen E touches the paper C a mark is made whether a record is being formed or not.

The conductors are rendered interchangeable by dividing them and connecting the ends by thumb-screws *b*.

I do not describe characters or signs made by means of my improved stenographic pen, as an alphabet or series of characters forms no part of my present invention. In a practical instrument constructed according to my improvement the finger-board with its keys will be conveniently arranged with reference to the plate B, so that the pen E may be held in one hand, while all the keys *a*, with the exception of those upon the branches 3 and 5, are arranged to be operated by the other hand. The keys *a* of the branches 3 and 5 will be placed in such a position as to be operated by the feet. By means of this arrangement the pen E may be moved in different directions over the prepared paper on the plate B, and any one of the keys *a*, or any combination of the said keys, may be touched so as to produce dots and dashes in different localities upon the sheet. These dots and dashes in different combinations and in different positions may be made with great rapidity, thereby enabling the operator to quickly make an intelligible record.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In an electric stenographic pen, the combination of an electric pen, comprising a series of conductors and a handle carrying the same and adapted to be held in one of the operator's hands, and an electric generator connected with said conductors through cir-



cuit-controlling keys, with a conducting-plate to receive the record-paper, substantially as set forth.

2. In an electric stenographic pen, the combination of an electric pen comprising a series of conductors and a handle carrying the same and adapted to be held in one of the operator's hands, and an electric generator connected with said conductors through a se-

ries of keys to be operated by the other hand and the feet of the operator, with a conducting-plate to receive the record-paper, substantially as set forth.

AUGUSTUS S. COOPER.

Witnesses:

ALEX. B. TODD,  
ISIDORE DREYFUS.