

Specification of Alfred Vincent Newton : instruments for extracting teeth.

Contributors

Newton, A. V. 1820-1900.

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A.D. 1858, 12th MARCH. N^o 506.

S P E C I F I C A T I O N

OF

ALFRED VINCENT NEWTON. 2

INSTRUMENTS FOR EXTRACTING TEETH.

LONDON:

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1858.





A.D. 1858, 12th MARCH. N° 506.

Instruments for Extracting Teeth.

LETTERS PATENT to Alfred Vincent Newton, of the Office for Patents, 66, Chancery Lane, in the County of Middlesex, Mechanical Draughtsman, for the Invention of "**A NEW COMBINATION OF INSTRUMENTS FOR EXTRACTING TEETH.**"—A communication.

Sealed the 25th June 1858, and dated the 12th March 1858.

PROVISIONAL SPECIFICATION left by the said Alfred Vincent Newton at the Office of the Commissioners of Patents, with his Petition, on the 12th March 1858.

I, ALFRED VINCENT NEWTON, of the Office for Patents, 66, Chancery Lane, 5 in the County of Middlesex, Mechanical Draughtsman, do hereby declare the nature of the said Invention for "**A NEW COMBINATION OF INSTRUMENTS FOR EXTRACTING TEETH,**" to be as follows:—

The object of this Invention is to mitigate the severity of the operation of extracting teeth, by rendering the nerves of the teeth to be removed temporarily insensible to pain at the moment the forceps is being applied. For 10 this purpose the Inventor combines a common dental forceps with a magneto-electric machine in such manner that a wire from one pole of the machine shall form a metallic connection with that part of the forceps that grasps the tooth, while the other pole of the machine is brought into connection with the 15 patient's hand by a second wire. The handles of the forceps which are held by the operator are better to be insulated by a covering of gutta percha or similar non-conducting substance. As the jaws of the forceps close upon the tooth where it is surrounded by the gum, the induced current from the

Newton's New Combination of Instruments for Extracting Teeth.

magneto-electric machine passes through the wire connecting the machine with the forceps, and, applying itself around the whole tooth in the vicinity of the nerves, so affects the nerves as to render them temporarily insensible.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Alfred Vincent Newton in the Great Seal Patent Office 5 on the 11th September 1858.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, ALFRED VINCENT NEWTON, of the Office for Patents, 66, Chancery Lane, in the County of Middlesex, Mechanical Draughtsman, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters 10 Patent, bearing date the Twelfth day of March, in the year of our Lord One thousand eight hundred and fifty-eight, in the twenty-first year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Alfred Vincent Newton, Her special license that I, the said Alfred Vincent Newton, my executors, administrators, and assigns, or such others as I, the 15 said Alfred Vincent Newton, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**A NEW 20 COMBINATION OF INSTRUMENTS FOR EXTRACTING TEETH,**" being a communication from abroad, upon the condition (amongst others) that I, the said Alfred Vincent Newton, by an instrument in writing under my hand and seal, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed 25 in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Alfred Vincent Newton, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the 30 following statement, reference being had to the Drawing hereunto annexed, and to the letters and figures marked thereon (that is to say):—

The object of this Invention, as communicated to me by my foreign correspondent, is to mitigate the severity of the operation of extracting teeth, by rendering the nerves of the teeth required to be removed insensible 35 at the moment the forceps is being applied. The improvement consists in

Newton's New Combination of Instruments for Extracting Teeth.

combining with a common dental forceps a magneto-electric machine in such manner that a wire from one pole of the machine shall form a metallic connection with the part of the forceps that grasps the tooth, while the other pole of the machine is brought into connection with the patient's hand by a second
5 wire. The handles of the forceps, which are held by the operator, are better to be insulated by being covered with gutta percha or similar non-conducting substance.

In the accompanying Drawing, A represents in perspective view an ordinary magneto-electric machine, with a battery B attached; D represents the
10 ordinary dental forceps. A wire C passes from the negative pole of the electro-magnetic machine to the point *a* of the forceps, where a close metallic connection is made. On the inner side of the forceps, at the point *d*, a small metallic cup is placed, and a small copper stem projects from the opposite side *e* of the forceps. As the parts *f* and *g* of the forceps close upon the tooth
15 where it is surrounded by the gum, the induced current from the magneto-electric machine passes through the wire C, and across from *d* to *e*, and thus applies itself around the whole tooth in the vicinity of the nerves, and so affects the nerves as to render them temporarily insensible. The patient operated upon must hold in one of his hands the extremity of the other wire H
20 (which is attached to the positive pole of the machine), so as to complete the circuit through his body. I represents the hands of the operator grasping the forceps, and K the hand of the patient grasping the wire passing to the positive pole of the machine. The magneto-electric machine has a sliding rod, by which the induced current may be varied in intensity, as is well
25 understood. The intensity of the current to be passed through the patient's tooth should be graduated by observing in advance how much he can conveniently bear when he grasps the extremity of the wires H and C in each hand. A little practice will enable the dentist to determine this readily. The magneto-electric machine A is of the ordinary form employed for medical
30 purposes, and consists of a battery of one cell, a primary coil, an inducing coil, a small electro-magnet for breaking and closing the circuit through the wires C and H and the patient's body. Any other form of magneto-electric machine may be employed.

I have described above particularly the machine frequently called an electro-
35 magnetic machine, and which is used for medical purposes. There are several other forms of machine sometimes classified as electro-magnetic or magneto-electric which are known to be equivalent in their action on the nervous system to the one above described, such, for example, as the double helices or coils composed of two coils of wire, one surrounding the other, one being a

Newton's New Combination of Instruments for Extracting Teeth.

quantity helix or coil, and connected with the battery, and the other an intensity helix or coil, and to be connected with the body of the patient.

Instead of using a little electro-magnet break circuit in the first helix, as shown in the Drawing, a clockwork break circuit or electrotome may be used, or a rasp may be used in connection with the aid of an assistant for breaking 5 and closing the circuit. So also there are several forms of magneto-electric machines in which permanent magnets are used to induce by mechanical action a magneto-electric current in a coil surrounding a revolving soft iron armature. In all these cases the same peculiar effect on the nerve of the patient's tooth would result if either of these machines were combined with 10 the forceps, inasmuch as they are all well known to be equivalents in applying electricity to the body for medical purposes. A direct current from the battery might also be combined with the forceps, and with the aid of an interposed break circuit the same effect would take place to a great degree, although the use of such a battery of the proper intensity would probably be 15 found much more inconvenient than the magneto-electric (or, as they are sometimes called, the electro-magnetic) machines above named. So also, instead of a metallic conductor from the magneto-electric or other battery, the body of the operator might be employed, he taking hold of the negative pole with his left hand, and grasping the forceps with his right hand. 20

Having thus set forth the nature of the Invention of "A New Combination of Instruments for Extracting Teeth," as communicated to me by my foreign correspondent, and explained the manner of carrying the same into effect, I wish it to be understood that under the above in part recited Letters Patent I claim, the combination of the magneto-electric or electro- 25 magnetic machine, or its equivalent, with the dental forceps for removing teeth without pain, arranged and operating substantially in the manner above described.

In witness whereof, I, the said Alfred Vincent Newton, have hereunto set my hand and seal, the Tenth day of September, in the year 30 of our Lord One thousand eight hundred and fifty-eight.

A. V. NEWTON. (L.S.)

Witness,

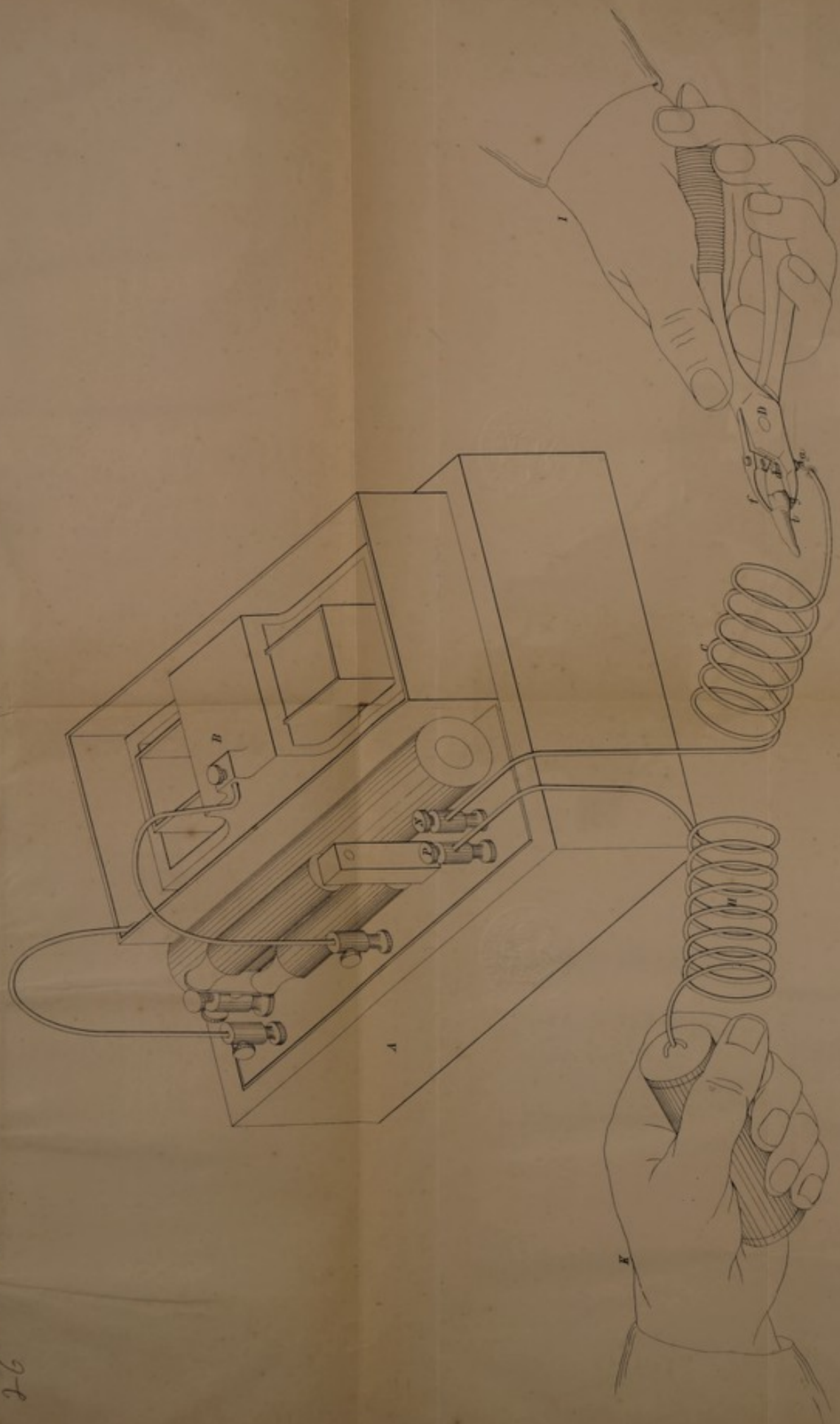
J. W. MOFFATT,

66, Chancery Lane.

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Printers to the Queen's most Excellent Majesty. 1858.

26



The filed drawing is partly colored.

LESSONS. Printed by GEORGE HARVEY and WILLIAM NEWTON, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

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