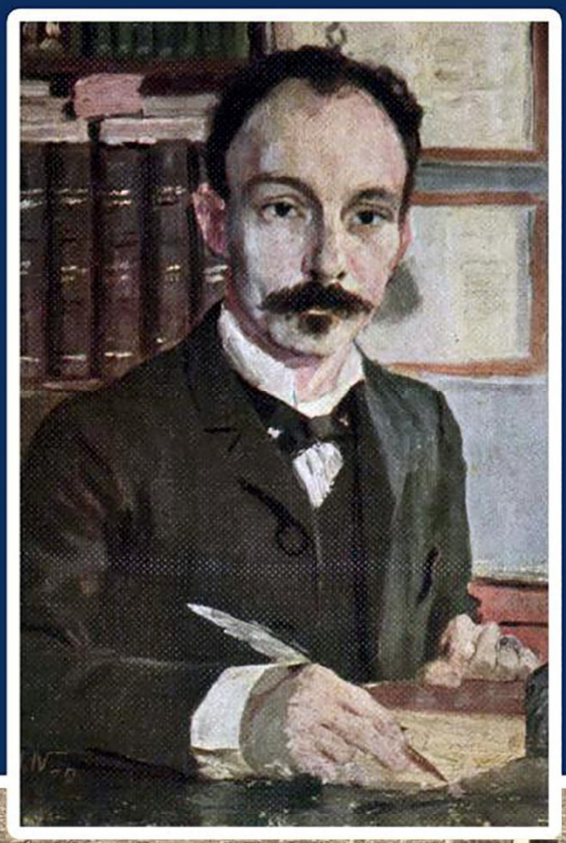
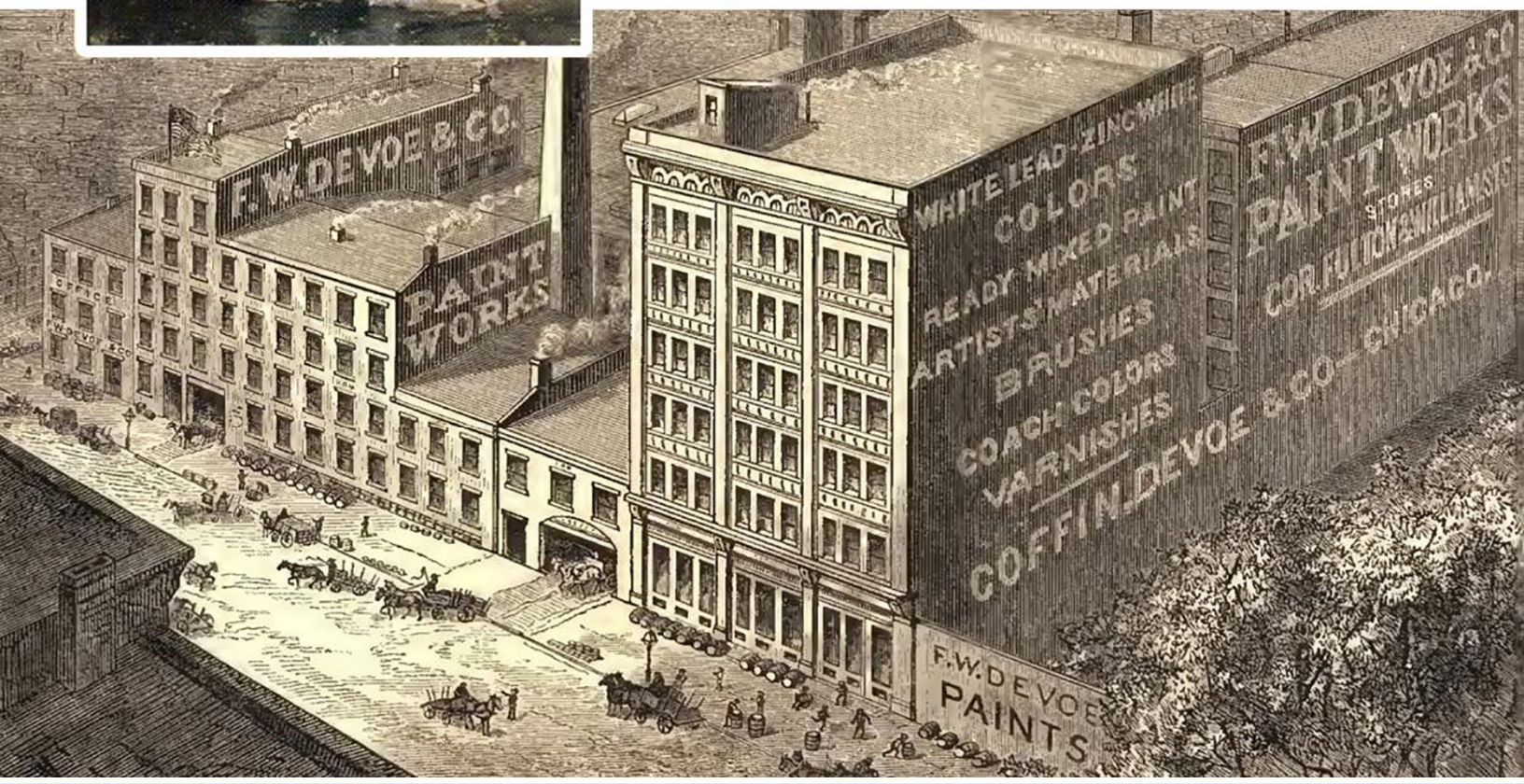


# Fuentes y enfoques del periodismo de José Martí en el mensuario *La América*




Alejandro Herrera Moreno

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# Freno eléctrico

El caballo, en su connotación de animal de ayuda en la agricultura, transporte de cargas, tiro de carruajes o cabalgadura (para el deporte, las comunicaciones o la guerra), es recurrente en el periodismo de *La América*. En cuanto a certámenes equinos, en 1883 dedica José Martí dos detallados reportajes a la exhibición de caballos en Nueva York; el primero en octubre donde la anuncia[1] y el segundo en noviembre donde narra los resultados del evento.[2] En el tema de zootecnia, en octubre de 1883 dedica un reportaje a los adelantos de la cría del ganado caballar en México[3] y en julio de 1884, retoma el asunto, esta vez para informar sobre una nueva técnica para el herrado de los caballos, que titula: "Invento curioso. Freno eléctrico".[4] Aquí explica:

> De hoy más, ya se puede herrar a los caballos por medio de la electricidad. —La invención es francesa y está pareciendo muy bien en los Estados Unidos, como el medio mejor de herrar a los caballos rebeldes. —La electricidad, sin peligro ninguno para el animal, lo domina y priva del poder de resistir; y el efecto de la batería empleada es suficiente para que el caballo quede bien herrado.[5]

**"De hoy más, ya se puede herrar a los caballos por medio de la electricidad. La invención es francesa y está pareciendo muy bien en los Estados Unidos, como el medio mejor de herrar a los caballos rebeldes".**

La información que emplea Martí proviene del suplemento 443 del *Scientific American* que en junio 28 de 1884 había publicado la noticia "Electricity applied to horseshoeing"[6], acompañada con las tres ilustraciones que incluimos en esta página. El cotejo de los textos de ambas versiones revela que efectivamente la noticia martiana está elaborada sobre la base de la traducción de partes de la noticia en inglés, como se muestra de manera comparativa en el Cuadro 1, donde hemos incluido el resto del texto martiano junto con fragmentos del original en inglés que resultan análogos en contenidos e ideas.

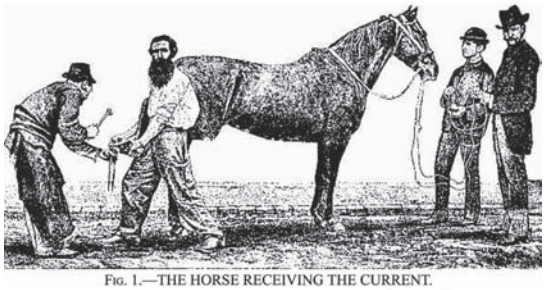

FIG. 1.—THE HORSE RECEIVING THE CURRENT.

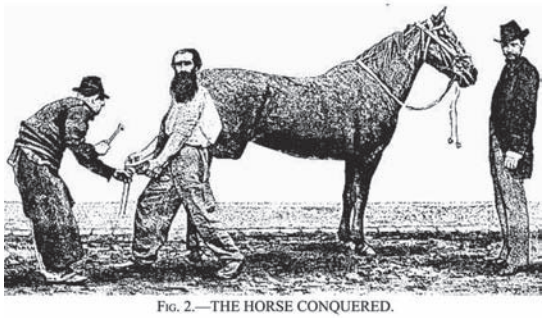

FIG. 2.—THE HORSE CONQUERED.

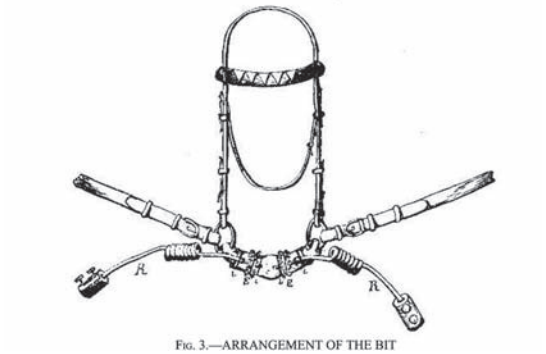

FIG. 3.—ARRANGEMENT OF THE BIT

La correspondencia de los textos es clara. En ambas versiones vemos, en el mismo contexto, la mención a la batería del inventor francés Eugene Grenet y la bobina de inducción del físico alemán Heinrich Daniel Ruhmkorff (1803-1877); el tiempo de respuesta de los animales, sus diferentes reacciones y las recomendaciones al herrador sobre el manejo de la intensidad de la corriente eléctrica, según la conducta del animal.

Cuadro 1. Comparación de textos de "Invento curioso. Freno eléctrico" de José Martí en *La América* y "Electricity applied to horseshoeing" del *Scientific American*.

| **José Martí** | ***Scientific American*** |
|---|---|
| "La batería que se usa en este sistema de Defoy es una pila Grenet de bicromato de potasa, que por la profundidad a que puede ser sumergido el zinc es sumamente fácil de graduar. La batería está conectada con el inductor de un pequeño rollo Rulhmkorff, cuya armadura comunica a su vez con el freno que se ajusta a la boca del caballo. | "The battery used was a small Grenet bichromate of potash pile, which was easy to graduate on account of the depth to which the zinc could be immersed. This pile was connected with the inductor of a small Ruhmkorff coil, whose armature was connected with a snaffle-bit placed in the horse's mouth". |
| La pequeña batería eléctrica, por medio del rollo, trasmite su poder al freno; y a los quince segundos de estar obrando la batería, ya el animal queda impotente, y el herrador puede dar principio a su tarea. | "The horse having been led in, defended himself vigorously as long as an endeavor was made to remove his shoes by the ordinary method, but the current had acted scarcely fifteen seconds when it became possible to lift his feet and strike his shoes with the hammer". |
| No todos los caballos, en esto como en tantas cosas semejantes a los seres humanos, pueden resistir el mismo grado de electricidad; y aunque el freno de Defoy está dispuesto de manera que en caso alguno quede dañado el animal, los que quieren aplicar a los caballos reacios al herraje este sencillo sistema, deben tener en cuenta, que | "From our own most recent experiments, we have ascertained the following facts, which may guide every horse-owner in the application of electricity to an animal that is opposed to being shod: |
| si el animal es impresionable y nervioso, como todo caballo bueno es, la corriente ha de administrarse débilmente y por grados, antes de intentar asirle la pierna. El caballo dará entonces un salto y procurará echarse en tierra. El herrador debe seguir el salto mientras que un auxiliar tiene el animal por la brida; y allí debe detenerse la acción de la corriente, porque ya el caballo no se resistirá al hierro. | (1) To a horse that defends himself because he is irritable by temperament, and nervous and impressionable (as happens with animals of pure or nearly pure blood), the shock must be administered feebly and gradually before an endeavor is made to take hold of his leg. The horse will then make a jump, and try to roll over. The jump must be followed, while an assistant holds the bridle, and the action of the current must be at once arrested. After this the horse will not endeavor to defend himself, and his leg may be easily handled". |
| Otros caballos cocearán de pura maldad, y no por nobleza de sangre y ánimo altivo; en estos casos, no ha de ser tan débil la corriente, sino que se irá haciendo crecer en intensidad y se asirá el casco durante su acción. La corriente eléctrica obra a través de la membrana mucosa, que en estos animales de raza grosera no es tan sensible como en los de casta fina. Tan pronto como el herrador ha asido bien el casco, la corriente debe ser interrumpida, porque el caballo no ofrecerá resistencia; a no ser que dé muestras de querer sustraerse al herrador, en cuyo caso, que es raro, debe renovarse por algunos momentos la corriente". [p. 261] | (2) Certain large, heavy, naturally ugly horses kick through sheer viciousness. In this case, while the current is being given it should be gradually increased in intensity, and the horse's foot must be seized during its action. In most cases the passage of a current through such horses (whose mucous membrane is less sensitive) produces [...] a slight tremor [...] The current must be shut off as soon as the horse's foot is well in one's hand, and be at once renewed if he endeavors to defend himself again, as is rarely the case". [p. 7069] |

De la noticia original sobre el invento francés, que consta de ochocientas diecisiete palabras y tres figuras, Martí traduce libremente algunos fragmentos esenciales del texto para fundamentar su noticia, que es sucinta y totalmente enfocada en el herraje de caballos, con cuatrocientas quince palabras. A diferencia de otras noticias donde se extiende, incluso fuera del contexto noticioso,

aquí no hay apartamientos significativos del tema y solo incorpora algunos comentarios que lo amenizan como cuando dice "...los caballos [...] en tantas cosas semejantes a los seres humanos..."[7] De las tres ilustraciones que acompañan la noticia que sirvió de base a "Freno eléctrico", Martí decidió no tomar ninguna. Llamamos la atención acerca de que la elección o rechazo de información gráfica de la fuente informativa es parte de la creación del producto informativo que solo puede evaluarse, como hemos visto aquí, si se cuenta con la información original.

**Notas**

1. José Martí: "Exhibición de caballos en Nueva York castas y premios", en *La América*, Nueva York, octubre de 1883, OCEC, t.18, pp. 70-72.
2. JM: "La exposición de caballos", en *La América*, Nueva York, noviembre de 1883, OCEC, t.18, pp. 211-213.
3. JM: "Adelantos en México. Mejora y cruzamiento de caballos. Varias razas. Crónica de zootecnia", en *La América*, Nueva York, octubre de 1883, OCEC, t. 18, pp. 190-194.
4. JM: "Invento curioso. Freno eléctrico", en *La América*, Nueva York, julio de 1884, OCEC, t. 19, p. 261.
5. Ídem.
6. "Electricity applied to horseshoeing". *Scientific American* Supplement no. 443, junio 28 de 1884, p. 7069. Disponible en: http://www.gutenberg.org/files/16773/16773-h/16773-h.htm
7. JM: "Invento curioso", ob. cit., p. 261.



change of current the wheel, *r*, describes an angle of 60°, that is to say, a sixth of a circumference. The motion of *r* is transmitted, by means of the pinion, *d*, and the wheel, *e*, to the wheel, T. For a one-meter variation in level the wheel, T, makes one complete revolution. It is divided into 100 equal parts, and each arc therefore corresponds to a difference of one centimeter in the level, and carries, engraved in projection, the corresponding number. As a consequence, there is upon the entire circumference a series of numbers from 0 to 99. The axle upon which the wheel, T, is keyed is prolonged, on the side opposite *e*, by a threaded part, *a*, which actuates a stylet, *g*. This latter is held above by a rod, *l*, which is connected with a fork movable around a vertical axis, shown in Fig. 6. The rectilinear motion of *g* is 5 mm. for a variation of one meter in level. Its total travel is consequently 40 mm. The sheet of paper upon which the indications are taken, and which is shown of actual size in Fig. 7, winds around the drum, P, and receives its motion from the cylinder, W. This sheet is covered throughout its length with fine prepared paper that permits of taking the imprints by impression.

This stated, the play of the apparatus may be easily understood. Every ten minutes a regulating clock closes the circuit of the local pile, $B_2$, and establishes a contact at C. The electro-magnet, $E_1$, attracts its armature, and thus acts upon the lever, *h*, which presses the sheet of paper against the stylet in front that serves to mark the level of the lowest waters, and against the stylet, *g*, and the wheels, T and Z. In falling back, the lever, *h*, causes the advance, by one notch, of the ratchet wheel that is mounted at the extremity of the cylinder W, and thus displaces the sheet of paper a distance of 5 mm. The wheel, Z, carries engraved in projection upon its circumference the hours in Roman figures, and moves forward one division every 60 minutes. The motion of this wheel is likewise controlled by the cylinder, W.

It will be seen upon referring to Fig. 7, that there is obtained a very sharp curve marked by points. We have a general view on considering the curve itself, and the height in meters is read directly. The fractions of a meter, as well as the times, are in the margin. Thus, at the point, *a*, the apparatus gives at 3 o'clock and 20 minutes a height of tide of 4·28 m. above the level of the lowest water.

This apparatus might possibly operate well, and yet not be in accord with the real indications of the float, so it has been judged necessary to add to it the following control.

Every time the float reaches 3 meters above the level of the lowest tide, the circuit of one of the lines that is open at this moment (that of line I, for example) closes at C (Fig. 2), into this new circuit there is interposed a considerable resistance, W, so that the energy of the current is weakened to such a point that it in nowise influences the normal travel of the wheel, *r*. At the shore station, there is placed in deviation a galvanoscope, K, whose needle is deflected. It suffices, then, to take datum points upon the registering apparatus, upon the wheel, T, and the screw, *a*, in such a way as to ascertain the moment at which the stylet, *g*, is going to mark 3 meters. At this moment the circuit of the galvanoscope, K, is closed, and we ascertain whether there is a deviation of the needle.

As the sea generally rises to the height of 3 meters twice a day, it is possible to control the apparatus twice a day, and this is fully sufficient.

It always belongs to practice to judge of an invention. Mr. Von Hefner-Alteneck tells us that two of these apparatus have been set up—one of them a year ago in the port of Kiel, and the other more recently at the Isle of Wangeroog in the North Sea—and that both have behaved excellently since the very first day of their installation. We shall add nothing to this, since it is evidently the best eulogium that can be accorded them.—*La Lumiere Electrique*

## DELUNE & CO.'S SYSTEM OF LAYING UNDERGROUND CABLES.

In recent times considerable attention has been paid to the subject of laying telegraph cables underground, and various methods have been devised. In some cases the cables have

## ELECTRICITY APPLIED TO HORSE-SHOEING.

"There is nothing new but what has been forgotten," said Marie Antoinette to her milliner, Mdlle. Bertin, and what is true of fashion is also somewhat so of science. Shoeing restive horses by the aid of electricity is not new, experiments thereon having been performed as long ago as 1879 by Mr. Defoy, who operated with a small magneto machine.

But the two photographs reproduced in Figs. 1 and 2 have appeared to us curious enough to be submitted to our readers, as illustrating Mr. Defoy's method of operating with an unruly animal.

The battery used was a small Grenet bichromate of potash pile, which was easy to graduate on account of the depth to which the zinc could be immersed. This pile was connected with the inductor of a small Ruhmkorff coil, whose armature was connected with a snaffle-bit placed in the horse's mouth.

This bit was arranged as follows (Fig. 3): The two cords were to place the bobbin quite near the horse's ear, so that he could hear the humming of the interrupter, undertook a second experiment in the following way: Having detached the conductors from the armature, he placed himself in front of the horse (as shown in Fig. 2), and began to imitate the humming sound of the interrupter with his mouth. The animal at once assumed the stupefied position that the action of the current gave him in the first experiment, and allowed his feet to be lifted and shod without his even being held by the snaffle.

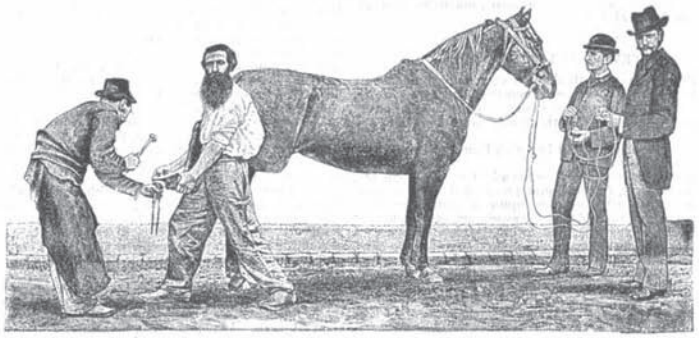

FIG. 1.—THE HORSE RECEIVING THE CURRENT.

The horse was for ever after subdued, and yet his viciousness and his repugnance to shoeing were such that he could only be shod previously by confining his legs with a kicking-strap.

It should be noted that the action of the induction coil, mounted as this was, was very feeble and not very painful; and yet it was very disagreeable in the mouth, and gave in this case a shock with a sensation of light before the eyes, as we have found by experimenting upon ourselves.

From our own most recent experiments, we have ascer-

FIG. 2.—THE HORSE CONQUERED.