

Errata of the book “Wilhelm Weber Main Works on Electrodynamics Translated into English”, edited by A. K. T. Assis, Volume 4: “Conservation of Energy, Weber’s Planetary Model of the Atom and the Unification of Electromagnetism and Gravitation” (Apeiron, Montreal, 2021), ISBN: 978-1-987980-29-5.

Available in PDF format at www.ifi.unicamp.br/~assis

- Page 7, the 1st line should be replaced by:

The picture on the cover of Volume 4 comes from a 1885 portrait of Weber made by the

- Page 8, the 3rd line from bottom to top should be replaced by:

electrodynamics; and (f) unification of inertia with gravitation. I discuss, in particular, the

- Page 18, the 3rd line of the 3rd paragraph should be replaced by:

latter of which is known for an elementary force of the first type, *but is completely unknown*

- Page 21, the 2nd line below Equation (5.1) should be replaced by:

The *receptive potential* on the other hand, is that which *is received by each of the two points at time t* and which

- Page 60, the 20th line should be replaced by:

surements presented in Volume 2 of these English translations of his main works on elec-

- Page 71, the 3rd line of the 3rd paragraph should be replaced by:

does not depend exclusively upon these particles themselves, on their distance and relative velocity, but also upon the portion of

- Page 77, the 3rd line from bottom to top should be replaced by:

where $u = dr/dt$ is the relative velocity of the two particles, and α the difference of their

- Page 105, the 7th line should be replaced by:

tion 9.16, at the same distance during their rotation around each other), we obtain

- Page 107, the 2nd line of the 4th paragraph should be replaced by:

of the electrical particles in the Ampèrian molecular currents contained in the same body might possibly

- Page 107, the 6th line from bottom to top should be replaced by:

fact consist in *an increase in the strength of the Ampèrian molecular currents formed by the electrical*

- Page 118, the 16th, 17th and 18th lines should be replaced by:

$h = 439450 \times 10^6$, with seconds and millimeters for units, then we will first have with our units:

$$\log h = 2.40805 \qquad \text{and} \qquad \delta\varpi = (\bar{4}.23550)t ;$$

after a century, we find that:

- Page 142, the last two lines should be replaced by:

+ u as *positive* and those of $-u$ as *negative*, in order to distinguish the *moving away* of the particles from their *coming closer*. The system of curves corresponding to the *first* section of the Table

- Page 144, the 11th line of footnote 227 should be replaced by:

particles are always smaller than ρ , and another group in which they are always larger than ρ . Moreover, again

- Page 145, the penultimate line should be replaced by:

particles e' , e'' , ..., for which u_0 is the same, but very small for all of them, then each particle

- Page 155, the second line of Section 1. should be replaced by:

of Σe and $4\pi\alpha^2 H$), and setting the moment of inertia of the cylinder as $\mathfrak{M} = ma^2$, then

- Page 155, the first line of footnote 250 should be replaced by:

²⁵⁰[Note by WW:] The separating force exerted by a spherical shell of radius α covered uniformly with

- Page 155, the 8th, 9th and 10th lines of footnote 250 should be replaced by:

If a battery is inserted in this conductor, through which the charge on the sphere remains stationary, then this proves that the separating forces exerted by the charge on the sphere and by the battery on the conductor are equal and opposite to each other, whereby also the separating force of the battery is determined, namely

- Page 155, the 12th up to 14th lines of footnote 250 should be replaced by:

But it is also clear that, when the spherical shell was not yet charged, it would get charged from the battery, and that this charge would grow, until it got to e' , assuming a sphere of radius = α , that is, until the *separating force of the charge on the sphere* would have become = $2e'/\alpha$ and *cancelled the separating force of the battery*.

- Page 155, the last line of footnote 250 should be replaced by:

be multiplied by $155\,370 \cdot 10^6 = [c/(2\sqrt{2})]$, in order to express them in *magnetic measure*.

- Page 172, the 1st line of the 2nd paragraph should be replaced by:

The velocity of the particle along its path also changes continuously in both cases, except at *one*

- Page 179, the last line should be replaced by:

motion, which encounter one another according to the theory developed in the 7th Section of the 7th Memoir

- Page 180, the 4th paragraph should be replaced by:

If all of these satellites remained bound with the ponderable molecules in the same way, they would have to be considered as belonging to them, and therefore *their mass would have to be added to the mass of the ponderable molecules* to which they belonged, and the force exerted reciprocally by the satellites of *two* ponderable molecules, as well as the force exerted by each of the two satellites on the one of the two ponderable molecules to which it does not itself belong, would have to be added or subtracted from the *gravitational force of the pair of molecules* according to the difference in sign.

- Page 181, the last line should be replaced by:

to demonstrate with certainty, for equal charges, a difference in the magnitude of the *force of attraction of dissimilar electric charges* and the *force*

- Page 183, the 13th line should be replaced by:

$2\alpha n n e e / r^2 = m m / r^2$, thus

- Page 186, the 2nd line of the 3rd paragraph should be replaced by:
molecules, then of the *ponderable* molecules. The *positive or negative electric particles* contained in

- Page 200, the 1st line of the 2nd paragraph should be replaced by:

If one denotes with y' the value of y for $r = r'$, one obtains the equation:

- Page 204, the first 3 lines should be replaced by:

thereby led out of the sphere of action of *one ponderable molecule into that of another*. The *heat conduction* of metals through mutual *radiation* of the ponderable molecules and the *galvanic conductivity* of metals are based on this. Since, however, the positive electric molecules rotating

- Page 222, the 3rd line below Equation (17.5) should be replaced by:

of reference are not relevant here. Weber's force points along the straight line connecting