

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his spare is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

C. F. Gauss

IN August of last year the editor of NATURE forwarded to me a letter he had received from Mr. Robert Gauss, of the firm of McDearman and Gauss, attorneys at law, St. Charles, Missouri, U.S.A. The object of this letter was to obtain, if possible, a copy of the *Proceedings* of the Royal Society (vol. vii.), referred to in my centenary notice of Gauss (NATURE, vol. xv. p. 533). I have not succeeded in obtaining this volume, and I learn from Mr. Walter White that there is no copy available from the Royal Society. In the course of a subsequent correspondence I have learnt several family particulars which, as I have Mr. Gauss's permission, I should like to give to supplement my former notice referred to above. I am the more disposed to do so as the notice of Gauss in the *Encycl. Brit.* (vol. x.) gives but scanty details, and, I observe, gives the erroneous date of April 23 (for April 30) as his birthday (vol. xv. p. 533), and further, all reference to Gauss's married life was omitted in my notice. Gauss, it is well known, was twice married. By his first wife he had two sons, Joseph and Louis, and one daughter, Minna; Joseph died in Europe four or five years ago, Louis died in infancy, and Minna, wife of Prof. Ewald, of Göttingen, died about ten years before her father. The second wife was Minna Waldeck (there is a letter from her mother to Oibers, in Dr. Bruhns's "Briefe zwischen A. v. Humboldt und Gauss," No. vi.); by her Gauss had also two sons and a daughter. This daughter, Theresa, died in Europe. The second son, William, settled in Missouri, and died August 23, 1879, at St. Louis. My informant says he died rich, and his sons are very well circumstanced in business: one son is a Presbyterian minister. Eugene Gauss, the eldest son by the second marriage, is the only living child of C. F. Gauss, and is in his sixty-seventh year (almost entirely blind with cataract in his eyes); he is Mr. R. Gauss's father; he left Europe about 1831, and has not since left his adopted country. The family propose to publish a translation of the several memoirs of Gauss in book form, and are very desirous of procuring copies of his letters to scientific men, more especially such as would be illustrative of his character and thoughts on general subjects. I have an extract before me of a letter from the daughter Theresa (date December 6, 1850), in which she says: "I cannot tell you much out of our quiet, simple life; one day and one year resembles very much the other, although they are peaceful days and years, for father, even now in his advanced years, retains his health unimpaired, and an always cheerful and happy frame of mind;" and then follows an account of the celebration in July, 1849, of his "semicentennial doctors'-jubilee." Brunswick and Göttingen heaped honours upon him, and the "King sent him autograph congratulations and bestowed on him the degree of a higher order; of letters and addresses there was no end" . . . "then father delivered an address in the University hall, which was filled to overflowing with spectators and auditors, and which was so decorated with flowers as to look like a fairy palace. Even the houses in the streets through which he passed were decorated, and the city swarmed with well-dressed people as on a holiday. When at last, at seven o'clock, he returned home from the dinner, he was indeed very much exhausted, and it was well that the torch-light procession, which the students had thought of getting up in his honour, was, at his wish, omitted." It was a matter of regret to the old man that not one of his sons was able to be present.

A subsequent letter (November 16, 1855) describes the closing scene: "Gradually his life ebbed away, while his sufferings ('from an organic heart trouble') increased. He bore it all though with constant cheerfulness, and with a uniform patience and submission. He did not altogether lose hope, and he retained his consciousness until the last. His physician Bauer remained with him during the day previous to, and during the night of, his death. At 1 o'clock in the morning he took hold of his pulse, and said: 'It is moving quietly and full as in his best days, death may linger a long time yet.' Ten minutes later

all was over! He died sitting up in his chair; and it was thus that his son Joseph found him enjoying, apparently, a quiet peaceful sleep." It is granted to few mathematicians to be so honoured in life.

R. TUCKER

Trans-Atlantic Longitudes

IN an admirable article by M. Perier on telegraphic differences of longitude, published in the *Bulletin de la Société de Géographie* for September, 1879, he refers to the cables across the Atlantic, and their use for the above-mentioned purpose.

As a matter of historical interest, I beg to forward you the following memoranda of the work of this class executed by this country.

By officers of this Survey:—

In 1866: Between Cambridge, Mass., and Greenwich, *via* Newfoundland and Ireland.

In 1870: Between Cambridge, Mass., and Brest, France.

In 1872: Between Cambridge, Mass., and Greenwich, *via* St. Pierre, Brest, and Paris.

The results of these observations are shown in our paper, written by Prof. J. E. Hilgard, on these longitudes, a copy of which is forwarded herewith.

By officers of the U.S. Navy:—

In 1874 and 1875: Key West to Havana, Havana to Santiago de Cuba, Santiago to Kingston, Jamaica, and Kingston to Panama.

In 1875 and 1876: Kingston to St. Thomas, to Port Spain, to Barbadoes.

In 1878 and 1879: Greenwich to Lisbon, to Funchal, to Porto Grande, to Pernambuco, to Bahia, to Rio de Janeiro, to Monte Video, to Buenos Ayres.

The cable between Para and Port Spain having been broken, the complete grand circuit cannot at present be effected.

C. P. PATTERSON

U.S. Coast and Geodetic Survey Office, Washington,
March 1

The "Zoological Record"

IN acknowledging with thanks the kindly notice of the last volume of this publication given in NATURE, vol. xxi. p. 392, I trust I am not out of order in referring to one or two sentences in it that require explanation. If the reviewer knew the difficulty of getting competent recorders at the slight remuneration we can offer, he would also appreciate the impossibility of enforcing uniformity in treatment of the separate subjects: the work is almost done as a favour, and each writer has his own idea as to the method most likely to be useful, and would probably desire all the others to conform to his standard.

The scheme of separate pagination referred to as a convenience to the printer is, on the contrary, a source of considerable additional trouble mechanically both to the printers and myself: it was adopted in deference to the expressed wishes of some working zoologists, who naturally desired to have as soon as possible the portions of the work devoted to their special branches, and who indeed very probably care for no other part of the publication. The query affecting myself as editor as to the accent always given on the *a* of *infra*, scarcely needs the answer that *infra* without the accent is a preposition requiring the accusative, and with the accent, as used here, is an adverb (see any large Latin dictionary, such as the old Ainsworth). It is also perhaps unnecessary to refer to the remark as to reproduction of the Greek " κ " by the English *c*, beyond observing that generic words, such as *Kallispongia*, Wright, are supposed to be in Latin, not English; discretion is scarcely allowable when uniformity is desirable.

The identification of the author, H. W. Mackintosh, has evidently escaped Dr. Lütken, who has been puzzled by the form "Mr. Mackintosh" used in *Quart. Jour. Micr. Sci.*, xvii. p. 104.

In "Cœl. 13," *Cylitooza* is not a misprint for *Calycotzoa*, as is readily seen by referring to Taschenberg's paper itself.

Mr. Ross's paper on the muscles of a specimen of the Cheetah which he dissected, was possibly considered by the recorder as purely medical, with no attempt at deduction (the number of *Proceedings* of the Royal Irish Academy containing it did not arrive to my hands in London until October, 1878, long after the mammalian part was written).

The omission of a second reference to *Ceratella labyrinthica*