

LETTERE TRA LUIGI CREMONA E CORRISPONDENTI IN LINGUA INGLESE

CONSERVATE PRESSO L'ISTITUTO MAZZINIANO DI GENOVA

A CURA DI GIOVANNA DIMITOLO

Arthur Henry Hallam ANGLIN
M.T. BEIMER
BINNEY *James* BOOTH
British Association for the Advancement of Science
William Snow BURNSIDE
Arthur CAYLEY *George* CHRYSTAL
Robert Bellamy CLIFTON
Robert CRAWFORD
Allan Joseph Champneys CUNNINGHAM
Charles Lutwidge DODGSON (*Lewis Carrol*)
DULAN *Henry Turner* EDDY
Samuel FERGUSON
William Tennant GAIRDNER
James Whitbread Lee GLAISHER
Arthur Bower GRIFFITHS
Thomas HUDSON BEARE
William HUGGINS *Morgan* JENKINS
Horace LAMB *Charles* LEUDES DORF
Hubert Anson NEWTON *Bartholomew* PRICE
Eugene Lamb RICHARDS R.G. ROBSON
Royal Society of London
John Wellesley RUSSELL
George SALMON *Henry John Stephen* SMITH
Robert Henry SMITH
Smithsonian Institution
William SPOTTISWOODE
Christina Margaret STRUTHERS
James Joseph SYLVESTER
Mary Isabella TADDEUCCI
Peter Guthrie TAIT
William THOMSON (*Lord Kelvin*)
Robert TUCKER *Gustav* TYSON-WOLFF
Rosa Helen WOLFF *John* WILSON

Indice

Presentazione della corrispondenza	1	J.W. RUSSELL	47
Criteri di edizione	1	G. SALMON	49
A.H.H. ANGLIN	2	H.J.S. SMITH	50
M.T. BEIMER	3	R.H. SMITH	55
BINNEY	4	Smithsonian Institution	57
J. BOOTH	5	W. SPOTTISWOODE	58
British Association	6	C.M. STRUTHERS	67
W.S. BURNSIDE	7	J.J. SYLVESTER	68
CAYLEY	8	M.I. TADDEUCCI	69
G. CHRYSTAL	10	P.G. TAIT	70
R.B. CLIFTON	16	W. THOMSON (Lord Kelvin)	74
R. CRAWFORD	17	R. TUCKER	75
A.J.C. CUNNINGHAM	18	G. TYSON-WOLFF	76
C.L. DODGSON (Lewis Carrol)	19	R.H. WOLFF	90
DULAN	20	J. WILSON	93
H.T. EDDY	21	Tabella: i dati delle lettere	94
S. FERGUSON	22	Biografie dei corrispondenti	97
W.T. GAIRDNER	23	Indice dei nomi citati nelle lettere	99
J.W.L. GLAISHER	29	Bibliografia	102
A.B. GRIFFITHS	30		
T. HUDSON BEARE	34		
W. HUGGINS	36		
M. JENKINS	37		
H. LAMB	38		
C. LEUDESdorf	39		
H.A. NEWTON	41		
B. PRICE	42		
E.L. RICHARDS	44		
R.G. ROBSON	45		
Royal Society of London	46		

Presentazione della corrispondenza

La corrispondenza qui trascritta è composta da 115 lettere: 65, in inglese, sono di corrispondenti stranieri e 50 (48 in inglese e 2 in italiano) sono bozze delle lettere di Luigi Cremona indirizzate a stranieri.

I 43 corrispondenti stranieri sono per la maggior parte inglesi, ma vi sono anche irlandesi, scozzesi, statunitensi, australiani e un tedesco, l'amico compositore Gustav Tyson-Wolff che, per un lungo periodo visse in Inghilterra. Sono soprattutto matematici, ma anche fisici, ingegneri e biologi: molti erano colleghi con i quali Cremona intratteneva rapporti professionali, e con alcuni anche di amicizia, per buona parte della sua vita. Ci sono poi due traduttori in lingua inglese di alcune opere di Cremona: Charles Leudesdorf per gli *Elementi di geometria proiettiva* e Hudson Beare per *Le figure reciproche nella statica grafica*.

Gli argomenti trattati sono i più vari: dalle ricerche e dagli studi dei matematici alle vicende personali e famigliari di Cremona e dei suoi amici, dai convegni in nord Europa ai resoconti particolareggiati delle vacanze sulle Alpi, dall'ammissione delle donne nelle università europee alle dispute sulla geometria euclidea.

Altre lettere scambiate in inglese da Luigi Cremona con alcuni suoi corrispondenti sono contenute nel Fondo Cremona conservato presso l'Istituto Matematico "G. Castelnuovo" dell'Università di Roma "La Sapienza", e sono state pubblicate a cura di M. Menghini, A. Millán Gasca e L. Nurzia.

La corrispondenza in inglese tra Luigi Cremona e Thomas Archer Hirst, conservata presso l'Istituto Mazziniano di Genova, è stata trascritta nella pubblicazione online sul sito www.luigi-cremona.it.

Criteri di edizione

1

La trascrizione delle lettere ha rispettato il più possibile il testo originale sia nella grafia, sia nella punteggiatura.

Si è mantenuta la sottolineatura "a parola" del manoscritto.

Per i termini che appaiono scorretti la correzione è stata indicata in nota, oppure ci si è limitati a segnalarli, quando evidenti, con [*sic!*].

Quando non è stato possibile decifrare una parola si è lasciata tra parentesi quadre un'interpretazione plausibile mentre sono state sostituite le parti non decifrabili con [...].

Tutte le scritte in corsivo sono state inserite dalla curatrice.

Cremona sottoponeva le bozze delle proprie lettere in inglese al vaglio della sua insegnante di lingua, Mary Isabella Taddeucci. Le correzioni a matita della Taddeucci sono state riportate solo quando erano accompagnate da una nota sulla grammatica o sul lessico, in caso contrario sono state trascritte solo le parole corrette.

Le lettere sono presentate secondo l'ordine alfabetico dei corrispondenti.

Arthur Henry Hallam ANGLIN

1

cartolina postale indirizzata a:
Professor Luigi Cremona, F.R.S.¹,
5 San Pietro in Vincoli,
Roma, (Italy)
Italia

Janemount,
Sundays Well, Cork
Ireland

data aggiunta a matita: 24-4-886

Dear Sir,

Pr: Brioschi thinks my MS.² too elementary for the Annali; and Rebeschini e C. say they have returned it to you.

Please return it to me and I shall feel greatly obliged, unless you know of some other journal in Italy which would accept it for publication. Your cordial compliance will greatly oblige.

Respectfully ys.
A:H: Anglin

2

¹ F.R.S. – Fellow of the Royal Society.

² MS – manuscript.

M.T. BEIMER

2

cartolina postale indirizzata a:

Prof. Luigi Cremona, F.R.S.³,
Piazza San Pietro in Vincoli,
Roma

92. Viale Petrarca 11th
*annotazione a matita: 2-4-86*⁴

Dear Prof. Cremona

My friend Miss. Smith has been sending me a few memoirs of her late uncle D^r. Angus Smith & she ventured to enclose one for you, thinking that it might interest you. He knew of my stay with you at the time, & I always hoped you might become personally acquainted some day. Certainly had you visited Manchester in his lifetime, a kind welcome & hospitality [would] have been [...] from them. I am returning to England on the 20th

With kind love to daughter. Sincerely yr.

M.T. Beimer

³ Cfr. nota 1.

⁴ Dal timbro postale si deduce che la data è, in realtà, l'11-4-86, fatto confermato anche dal "11th" scritto dall'autore in testa alla lettera.

BINNEY

3

Macerata
12-9-1883

Dear Miss Binney,

Itala and I we left Portomaurizio on the 31th August and, after short stop at Genoa, Sestri Levante and Bagni di Lucca, reached this place, where my eldest daughter lives with her husband, [...] Perozzi. She had been, the foregoing day delivered of a little girl, so that I am now twice grandfather. They have bestowed on the child the name of my late dear wife, Eliza; and Itala was elevated to the dignity of godmother.

Just on the point of leaving the seaside, Itala received your postcard of the 30th p.m. where you rightly set off the enormous mistake my daughter fell in, in explaining the word holiday of your foregoing letter! On those days she was very tired and a little unwell on amount of the great heat endured in a trip along the wonderful [...] as far as Nizza; besides she was very busy with preparation of departure and with taking care of our many friends and relations in P.M. Your American book and your letter to Itala, reached us about the 25 August, which day is marked in the Catholic almanacs⁵ with St. Luis King of France name. My daughter weak as she is in English dictionary and missing time and calm for reflection, thought the book had been kindly sent by you as a present for my name day after a custom rather frequent in Italy. As for me, absorbed by business, I did not see your letter; otherwise, I had noticed your kind purpose had been to send me a pleasant book for reading in the vacation time. So mistaken, Itala thought it was suitable to warn you that my name day (after practical of the Catholic church in Italy) is on the 21 June (an Italian saint) instead of the 25 August (a French saint); and as she, on amount of patriotic grounds, loves France very little, she bursted⁶ into the words, that her father is not a Frenchman.

There was on the whole a peculiar confusion of words and things; I beg your pardon for her.

I thank you very heartily for "the Innocents abroad"⁷ you had the kindness to send me; I am reading it with great fun.

The little anecdote you asked my daughter is as follows; an Englishmen had [*spazio bianco*]

Itala will do her best to carry on her English, after your advice; but she deserves indulgence if she is not able to work a great deal, being orphan of her mother in such an early age, she has much more home business than a girl usually has. Now she is nursing her sister and her nephew, who is, to our eyes, the most charming child of the world. On the 1st September Itala will go to Perugia and spend a few days with her friends Rossi; then she will return to Rome.

We hope, you will also in the future let us heard of your goings. Itala asks me to give you her loving remembrances; Please apology for my bad English and believe me

Your affectionately
L.C.

4

⁵ almanacs.

⁶ burst.

⁷ Si tratta del racconto del viaggio che Mark Twain fece nel 1867 nel "Vecchio Continente", scritto inizialmente come corrispondenza per un quotidiano di San Francisco e pubblicato poi nel 1869 in un testo che ebbe a lungo un grande successo di pubblico (M. Twain, *The innocents abroad, or the new pilgrims' progress*, American publishing co., Hartford, 1869).

James BOOTH

4

su carta intestata
The Vicarage, Stone,
Aylesbury, 10 march 1868

My dear Professor Cremona

I send by post to your printer Francesco Zanetti a memoir on the rectification of certain Curves by means of Elliptic Integrals. It is written in English, but I shall be greatly indebted to you if you will have the kindness to have it translated into French instead of Italian, so many more persons in England know the French language better than Italian – would you also favour me with a revise on proof for correction. Will you have the goodness to pardon me all the trouble I propose to give you in this matter and believe me very

faithfully and sincerely

Yours

James Booth

5

su carta intestata
The Vicarage, Stone,
Aylesbury, 15 Sep^r 1873

5

Dr Booth presents his Compliments and best thanks to Signor Cremona for the promised notice of his book on the influential pages of his journal

Dr Booth would feel highly honoured should Signor Cremona give extracts from, or otherwise notice the book, as Mathematical works in general command but few readers, and are but little known to the public

British Association for the Advancement of Science

6

6 June 1879

Dear Sir,

I acknowledge the receipt of the Report of the Meeting of the British Association held at Plymouth in 1879. Accept my best thanks for this interesting volume with which you had the kindness to present me as a corresponding member.

I am, dear Sir,

Yours obediently
L.C.

To the Secretary of the
British Association for the advancement of Science
22 Albemarle Street, W.

London

William Snow BURNSIDE

7

su carta intestata:
TRINITY COLLEGE
DUBLIN
12TH November 1884

Dear Prof. Cremona

I have to thank you very much for thinking of me at all and sending me such an interesting account of the studies in your Engineering school – as well as your University Almanac, I should have acknowledged the receipt of these papers long since only I was absent when they came here, and I have been over-busy since I returned – Poor Townsend died last month – he was very sorry not to have had the great pleasure of seeing you when in Dublin – Hoping you are very well-

With kindest regards
I remain yours most sincerely
W. Snow, Burnside

Arthur CAYLEY

8

29 avril 1879

Dear Mr. Cayley

Accept my best thanks for the tenth memoir on Quantics and the [...] on the Transformation of elliptic functions you had the kindness to send me. I always remember the delightful hours I spent in Cambridge (1876) with your family

Continue to me your precious affection and believe me

Yours faithfully
L.C.

aggiunto a matita:

Prof. Cayley
Care of
Glaser⁸
Cambridge
Arthur Cayley Esquire

J.W.L. Glaisher Esquire
M.A. F.R.S.⁹
Trinity College
Cambridge

Prof. Arthur Cayley
Care of J.W.L. Glaisher Esquire

8

9

3 May 1879

My dear M. Cayley

The object of this letter is to ask your participation in a work which Prof. Beltrami and I have undertaken to honour our friend Prof. Chelini's memory. Our project [*in matita*: plan] is to collect a certain number of original mathematical papers, whose authors are friends of ours, to publish them in one volume and to dedicate it to Chelini's memory. The papers to be inserted in, can be on whatever subject and of any extent, and written in any language preferred. It would be a great pleasure to us and would highly increase the value of the book if you consent to contribute a paper or a note.

Should you send me the manuscript written in a month or two, I shall feel greatly obliged.

I hope you will excuse the inconvenience I cause you. My kind regards to Mrs. Cayley and believe me

Your affectionate
LC

⁸ Glaisher.

⁹ Cfr. nota 1.

10

su carta intestata:

ROMA
R. SCUOLA
DEGLI
INGEGNERI
3 June 1879

Dear Professor Cayley,

Your letter of 27th May announcing me that you propose to contribute a paper “on a differential equation of the third order” to the volume to Chelini’s memory, caused me great pleasure. Accept my best thanks. On this occasion I have the honour to send you a very short paper of mine, on Surfaces and Curves passing through all the vertices of an infinity of polyhedra whose faces are osculating planes of a given finished cubic. The matter is extremely simple, but perhaps not without interest.

I ask you again to believe me, my dear Professor Cayley,

Yours very affectionate
L.C.

11

10 June 1879

Dear Mr. Cayley

I have received the manuscript of your paper on a differential equation &c contributed to the volume to Chelini’s memory. I was surprised that your kind promise was so immediately followed by performance; my gratitude is ever so much greater.

Please, give my remembrances to Mrs Cayley and Mr. Glaisher; and believe me, my dear Mr. Cayley

Your affectionate
L.C.

George CHRYSTAL

12

su carta intestata:
5, BELGRAVE CRESCENT,
EDINBURGH.
20th March 1884

Dear Sir,

I learn from the list of Tercentenary Acceptances that you are to honour us with your presence next month. It would give me great pleasure if you would be my guest during your stay in Edinburgh. I aspect Professor Hermite to honour me with his Company at the same time.

If you find it convenient to stay with me I should be glad to know at what date to expect you.

Believe me

Yours Sincerely

G. Chrystal

Professor of Mathematics

Univ. Ed.

13

su carta intestata:
ROMA
R. SCUOLA
DEGLI
INGEGNERI

10

Dear Prof. Chrystal,

I am very much obliged to you for your kind invitation to be your guest in Edinburgh, and I do myself the honour of accepting it.

I am waiting for some programme and other intelligence about the proceedings of the ceremony; As soon as I shall be able¹⁰ to fix the plane of my journey, I will immediately write you the date of my arrival; I think it will be convenient to come one or two days before the festival; will it not?

The notice makes me happy that I shall have [...] the honor¹¹ of enjoying Prof. Hermite's company, with yours.

I look forward with delight to the prospect of the personal acquaintance of yours, whom I know, by Prof. Tait's report, to be a very clever mathematician.

¹⁰ I shall be able.

¹¹ honour.

25 March 1884

Dear Prof. Chrystal¹²

I am very much obliged to you for your highly kind invitation to be your guest in Edinburgh; and I do myself the honour of accepting it.

I look forward with delight to the prospect of a personal acquaintance with you, whom I know, by Prof. Tait's report & otherwise, to be a very clever mathematician.

It makes me happy also that I shall have the honour of enjoying Prof. Hermite's company, with yours.

I am waiting for some programme or other intelligence about the proceedings of the whole ceremony. As soon as I shall be able to fix the plan of my journey, I will immediately write you the date of my arrival.

It will be well, I think, to come one or two days before the festival, will it not ?

Prof. Salmon writes me that he also hopes to come to Edinburgh.

Believe me, dear Professor,

Yours sincerely
L.C.

Segue P.S. alla lettera
a Chrystal

annotazione a matita: segue

P.S. alla lettera Chrystal¹³

By this post I receive the programme sent by the university Secretary, from which I learn that I must reach Edinburgh not later than the 15th april¹⁴.

I suppose, I have nothing to do with the "costume" before that I shall be in Edinburgh where it will probably be possible to hire or buy the appropriate robes¹⁵.

I hope, I may rely upon your kind assistance, about that.

11

¹² Questa e la precedente (n. 13) sono bozze della stessa lettera.

¹³ Il post scriptum si trova sulla bozza di una lettera indirizzata al prof. Salmon (n. 59).

¹⁴ April.

¹⁵ robes – Toga. In occasione del Terzo Centenario dell'Università di Edimburgo, Cremona ricevette il Doctor Laws Honorary Degree.

su carta intestata:
5, BELGRAVE CRESCENT,
EDINBURGH.
31st March 1884

Dear Professor Cremona,

I was much pleased to receive your letter honouring me by accepting my invitation.

And is with no small pleasure that I look forward to making the acquaintance of one whom I have long admired and followed afar off. I say afar off, for, though I am Professor of Pure Mathematics, and keep up my interest in all the branches of the undefiled Science, yet my tastes, and to some extent the necessities of my position, lead me to devote much of my spare time to Physical Science in its Mathematical aspect.

I am glad you have received the official programme.

I trust you will not be alarmed by the number of its items.

As a guest you will have in most things complete freedom of choice.

I have ventured to make some engagements for you; and have done so on the assumption that you would desire to see something of your Mathematical Brethren attending the festival.

For Wednesday 16th April I have accepted an invitation to dinner for you and professor Hermite from Lord Maclaren one of the judges of the Court of Session. At dinner in his house you will meet Sir W. Thomson Professors Cayley, Sylvester, Stokes, Salmon, Tait, Bierens de Haan.

Professor Tait has also invited me and my guests for Friday Evening; and there you will meet more Mathematicians.

I should like you to keep Saturday afternoon free for me I mean to give a luncheon at my house on that day; and my friend Mr John Murray of the Challenger¹⁶ proposes to take my guests to Granton¹⁷ to see the new Marine Station, and to take them over in the new yacht of the Station to the island of Inchcolm¹⁸ on the Firth of Forth¹⁹. If we get fine weather this will be a very pleasant excursion and will give you an excellent idea of the surroundings of Edinburgh.

Leave all the matter about Robes to me. I have to get a respectable gown for myself and shall see to hiring one for you at the same time.

If you care to buy one afterwards that is a matter that can wait your mature decision.

I shall be glad to see you as soon as you find it convenient to come. One with your command of English will find no difficulty; but I shall be happy to meet you at the Waverley Station²⁰ if you will let me know the day of your arrival and the train by which you come.

I am exceedingly glad to see that you understand English. I have been thinking with some alarm of the murderous onslaught I might have to make on the French Language which I understand fairly when slowly spoken but which I speak in a barbarous manner. I am only beginning Italian which I can just read and no more. I was a few days in North Italy last summer, mostly in Verona, I was beginning to understand the spoken language a little, but so many of the North Italians knew German which is the foreign tongue I know best, that I did not get on with Italian so much as I should have liked.

I have the greatest desire to become familiar with your language however; both on account of its beauty, and on account of the many excellent works in Mathematics and Physical Science published in that tongue.

¹⁶ Si tratta della esplorazione oceanografica "Challenger", che ebbe luogo dal 7 dicembre 1872 al 26 maggio 1876. Sir John Murray faceva parte del personale scientifico di bordo in qualità di oceanografo.

¹⁷ Quartiere settentrionale di Edimburgo.

¹⁸ Inchcolm.

¹⁹ Profonda insenatura creata dall'estuario del fiume Forth, sulla costa orientale della Scozia.

²⁰ Principale stazione ferroviaria di Edimburgo.

In my present Condition I think the best plan will be a bilingual medium unless you will undertake to speak English.

Accept my assurance of the highest respect & Esteem & Believe me yours

Very truly
G. Chrystal

16

su carta intestata:

15 CHALMERS STREET, *cancellato e corretto in:* 5 BELGRAVE CRESCENT
EDINBURGH.
5TH May 1884

My dear Professor Cremona,

I was much pleased to get your Italian letter which I managed to read without consulting the dictionary - save once.

I am glad to gather from your letter that you are not the worse for our highland tour.

I would have answered your letter sooner but I hoped to have the photographs which have not yet been sent. I saw the proofs and was better pleased with them than I expected to be; but I cannot say that I think them equal to your Roman photograph. If the photo do not come to-morrow, I shall enquire after them. I have got a photo of the luncheon for you but it's not very good.

The enclosed cutting from the Scotsman²¹ will give you the notice of your paper which you ask for; it contains the title as dictated, except that "Example of", is omitted at the beginning, & "the plane figure" is printed for "a plane figure".

Edinburgh is very dull just now. Tait is away, golfing at St. Andrews & Crum Brown is in London. I have been ill for some days with bronchitis, which often troubles me in spring; but I am now getting better, and am busy arranging my apparatus for my summer work.

I had a letter from Hermite the other day with a communication for the Royal Society on the reduction of Hyperelliptic Integrals²². About the same time I had a note from Frischauf in which he tells me that he has in hand a new edition of his "Elemente der Absoluten Geometrie"²³. By the way I suppose you know the things about the kinematics of Elliptic Space that have been done by Clifford and Ball.

I have a number of synthetical demonstrations of their results which I have never found time to publish except by alluding to them in a review in Nature of Clifford's Papers²⁴. There is a roundness about the Elliptic Geometry which is very attractive.

What is your way of determining the asymptotes of a conic generated by the rays that join the corresponding points of two projective ranges? Neither Steiner nor Reye take up the question. I gave my pupils a method but should like to get a simpler one.

I shall write again when I get (or find out about) your photos. Meantime believe me yours

Very [...] truly
G. Chrystal

P.S. my wife sends her best respects.

²¹ Giornale scozzese. Fondato nel 1817, uscì in edizione settimanale fino al 1850 quando divenne un quotidiano.

²² G. Chrystal, C. Hermite, "Sur la Réduction des Intégrales Hyperelliptiques, extrait d'une lettre adressée à M. le Professeur Chrystal, par M. Herroite », *Proceedings of the Royal Society of Edinburgh*, 12, 1884, pp. 642-646.

²³ J. Frischauf, *Elemente der Absoluten Geometrie*, Druck und Verlag Von B.G. Teubner, Leipzig, 1876.

²⁴ G. Chrystal, "Clifford's Mathematical Papers", *Nature*, 26, 1882, pp. 217-219.

[allegato ritaglio di giornale]

THE ROYAL SOCIETY. – The ordinary meeting of this Society was held last night. Sir William Thomson presided, and there was a large attendance. Professor Helmholtz, Berlin, an hon. Fellow of the Society, read a paper on “Galvanic Currents passing through a very Thin Stratum of an Electrolyte.” Electrolytic decomposition must, he said, go on till the required amount of gases is dissolved in the fluid, if there was not already a sufficient quantity of one of the gases – viz., oxygen – of the atmosphere in solution. The thermodynamic interferences which he had lately developed showed that a limited quantity of the gases could be produced electrolytically, even by very feeble electromotive forces, till a certain value of density of the dissolved gases, corresponding to the value of the decomposing force, had been reached. Out of these thermodynamic laws one could develop a complete mathematical theory of galvanic polarization and its effects. As far as the accuracy of his measurements reached, the facts appeared to be in sufficient harmony with such a theory. The Abbé Renard, Brussels, who spoke in French, gave an examination of dust collected in the snow by Mr Omond at the Ben Nevis Observatory²⁵, and stated that he found the dust composed of small particles of coal, quartz, felspar, and organic substances, from which he argued that so much organic substances could not possibly be of cosmic origin. A short discussion followed as to the possible intercommunication with life of different planets. Professor Cremona, Rome, who also addressed the meeting in French, gave a method of deriving from the plane figure the generation and properties of a curved surface. The gentlemen were heartily thanked for their papers.

17

su carta intestata:
5, BELGRAVE CRESCENT,
EDINBURGH.
9th May 1884

14

My dear Professor Cremona,

I went yesterday to Moffats' & asked about your photos'. They were all printed but one; and they promised to send them off today to your address which I gave them (Athenaeum Club)

I send herewith a photograph of the Lunch which may be interesting as a souvenir if not admirable as a picture.

I received the other day a copy of a paper of Dr Hirst's. I should be glad if you would thank him for me.

I would do so myself, but do not know his address.

I hope you have been having a pleasant time in London. I see your name down for a paper at the Math. Soc. Murray told me he had seen you in London.

I am busy just now designing a self registering Wind Mill for Ben Nevis Observatory a humble occupation is it not.

Murray is to get Buchanan to write to Captain Magnaghi about his Current Experiments; it would be sufficient for me to have references to the published accounts of his work.

Tait has just returned from St. Andrews in great spirits over many triumphs at Golf and billiards. I gave Mrs Tait the photo you left for her, which was received with great delight.

I suppose there is nothing further that I can do for you just at present; but if anything occurs to you let me know. Believe me

yours
very truly
G. Chrystal

²⁵ Si tratta dell'osservatorio meteorologico costruito sulla cima del monte Ben Nevis in Scozia, attivo dal 1883 al 1904.

su carta intestata:
5, BELGRAVE CRESCENT,
EDINBURGH.
2 May 1885

My dear Professor Cremona,

I am sadly afraid you will think me an ungrateful correspondent. The truth is that I have been hard pressed this winter. The drudgery of College work has been harder than usual; and my mother's death, which occurred in the middle of it all, made my work harder for me than it has been wont to be.

I hope you will keep your promise to visit the British Assoc. Meeting at Aberdeen. I am to be president of Section A, and it is in my duty to ask for contributions. I therefore fall upon you. We, that is my wife & family & my sister and myself, are to live for six weeks at a little Inn at Achilty near the foot of Ben Wyvis²⁶. This would be an excellent starting place for an exploration of the Western Coast of Scotland, and in particular of the Wild County of Sutherland. If your daughter, whom you spoke of bringing with you, likes mountain scenery, I think some parts of the above would please her. I need hardly say that I should be glad to accompany you.

Many thanks for your admirable report on the Italian University Bill, every word of which I read with the greater interest. Indeed I made considerable use of it, in an address to our graduates, which I gave on the 22nd of last month.

I have just been looking at your work on the higher plane curves, from which I have derived much pleasure & great instruction. Lately I have been working out a number of cases of the intersection of a curve with its Hessian at a multiple point - a curious but difficult subject.

Yours
Very truly
G. Chrystal

²⁶ Montagna nel nord della Scozia.

Robert Bellamy CLIFTON

19

su carta intestata:
PORTLAND LODGE,
PARK TOWN
OXFORD
18 July 1884

Dear Professor Cremona

I have received a copy of the valuable memoir on the length of the second's pendulum by Prof^{rs} Pisati & Pucci²⁷ and I beg to offer you my best thanks for your kindness in obtaining for me this important work.

The memoir has, I observe, been sent to me by the distinguished authors, but as I owe this to your mediation and, as I have not the honour of being personally acquainted with Prof Pisati or Prof. Pucci, may I ask you to do me the additional favour of expressing to them my gratitude for their gift, which I most highly esteem.

I am Dear Prof. Cremona
Most truly yours

16

²⁷ G. Pisati, E. Pucci, "Sulla lunghezza del pendolo a secondi", *Memorie della R. Accademia dei Lincei*, Serie 3, vol. 13, 1882–83.

Robert CRAWFORD

20

su carta intestata
Trinity College Dublin
Nov.10th.1884

Dear Professor Cremona,

I have to offer you many apologies for not having written sooner to thank you for your kindness, in sending me the programme and Calendar of your Engineering School in Rome.

The books arrived in Dublin during our long vacation, and were not sent on, having been kept back along with a mass of other pamphlets and books etc. And, when I did come back, I was so busy with examinations that I overlooked the matter.

I am greatly interest with the information concerning your Engineering School.

Everything seems to be very complete and well arranged.

I can now understand how it is that Italian Engineers are so skilful in their profession, (I have always admired their work greatly) It is evident that they are well trained and prepared for the profession, to begin with. I am afraid that my Colleagues here have treated you almost as badly as myself, about acknowledging the receipt of the books you so kindly sent them, they were like me, absent [...]. We have all been much concerned about the cholera [...] in Italy, and [...] trust it has passed away now. Believe me yours faithfully

Robert Crawford

Allan Joseph Champneys CUNNINGHAM

21

Brompton Barracks, Chatam
England
4-4-83

Dear Sir,

I have no spare copies of my large work (*Roorkee Hydraulic Experiments*²⁸) left: but I have asked the Government of the N.W.P.²⁹ in India to send you a presentation copy, (it being a Government publication). Would you oblige me by letting me know when it reaches you. I should like to have a review of it published in some Italian scientific paper.

Your obediently
Allan Cunningham, Major
Royal Engineer

18

²⁸ A. Cunningham, *Roorkee Hydraulic Experiments*, Thomason College Press, Roorkee, 1880-1881.

²⁹ North Western Provinces, regione amministrativa della colonia britannica British India.

Charles Lutwidge DODGSON (Lewis Carrol)

22

3 June 1879

Sir,

I am told you are occupied about Euclid's indication³⁰; please look at Battaglini's *Giornale di matematiche*, napoli [*sic!*] 1869 the opinion of some Italian mathematicians on the didactic value of the Greek Geometer. Besides, if you like, you can be informed on this point by Prof. Hirst, though his opinion does not quite agree with ours...

Yours obediently
L.C.

Charles L. Dodgson [...]
Christ Church
Oxford

19

³⁰ C.L. Dodgson, [*Euclid and his modern rivals*](#), Mac Millan and Co., London, 1879.

DULAN

23

Dear Mr. Dulan

I do not understand why you continue sending to Milan the papers destined to me, as I left that city six years ago.

As I already wrote to you several other times, my address is Roma (S. Pietro in Vincoli)

I am, dear Sir

Yours affectionate
Prof. L. Cremona

Henry Turner EDDY

24

cartolina postale indirizzata a:

Professor B. Cremona

Rome

Italy

University of Cincinnati,

Cincinnati, Ohio

U.S.A.

Nov. 6/77

Dr. Sir

I should like to send you a copy of my recent investigations in Graphical Statics, but I am not certain of your address. Should this reach you, please inform me how to [...] what I wish to send you and oblige

Your most Respectfully

H.J. Eddy Ph.D.

Professor of Math.tc.

Samuel FERGUSON

25

20 [Athy Georges St.]
Dublin
2 May 1884

My dear Friend

The Post office order is duly received.

I reciprocate all your kind expressions, & will not fail to convey your remembrances to your various friends. There are in Ireland only two Universities legally qualified to confer degrees; the University of Dublin & the Royal University. The former is in fact constituted wholly of Trinity College; the latter has affiliated to it the Queen Colleges of Belfast Cork & Galway whose students receive their degrees from it. It also grants degrees in Arts to the students of what is known as the Catholic University, but not in law or physic.

The Catholic University is not a chartered or otherwise [...] State Institution. It confers no degrees, & is in contemplation of law, a private school self-styled by an ambitious title. But it looks to [obtain] a charter some day.

There is but one Prof.^r Robert Atkinson. He fills the two chairs of Sanscrit & the Romance languages, & is our coming man in Celtic.

Carry with you our kindest regards, & whenever you return to this poor island, [...] as it is of perpetual changes & the makeshifts of [...], be sure of a [...] welcome with us.

Most truly yours
Sam. Ferguson

Professor L. Cremona
Athenaeum Club
London.

William Tennant GAIRDNER

26

Dear Sir,

I was very pleasingly [*in matita*: pleasantly] surprised receiving the pretty portrait birthday book you had the goodness to send me for my children. They charge me to thank you most heartily. I return my best wishes for you, Mrs. Gairdner, your children and Miss Agnes Wright. I always remember with pleasure the days passed in your hospitable house.

Your grateful
L.C.

Mr. Dr. W.T. Gairdner
225 St. Vincent Street, Glasgow

27

su carta intestata:
9 THE COLLEGE,
GLASGOW.
Jan^y 11th – 93

My dear friend

I have received your card with the multitude of letters on the back thereof, for which I infer that in conveying your best wishes, you are, or would be, able to give a good account of yourself, & your amiable wife, as also of your own scattered family in Rome & elsewhere. I wish I could tell you that we are all well, but I am in very great anxiety about our 3rd boy Hugh who is, as I think, in a most severe & dangerous acute illness, of which I cannot foresee the end.

Otherwise, we are all pretty well, but this state of suspense occupies all our minds and we get to know how dear Hugh is to us all, by the mere fact of his being in such danger.

With kindest regards to Madame, believe me, dear Sir Cremona

Your [...]
W.T. Gairdner

By the bye, I have not mentioned it as yet, to him but would it be inconvenient to you if I were to bring my eldest son (the medical one) with me to the Congress in autumn? He is now more than 21 and although he has not yet got his diploma, he is making a very good study of medicine, & would be much the better, too, of seeing the Eternal City.

23

28

su carta intestata:
9 THE COLLEGE,
GLASGOW.
Jan^y 27.93

My dear Friend

I am very pleased to have your most kind letter.

It is a great help in our grief to have so much sympathy and from so far away.

I have not yet spoken to my eldest son as to what is in store for him, in a visit to your grand and noble city, but you may be assured that he will feel as grateful as I am for the kind hospitality offered by you.

I forget if I sent you this card to show what honour is to be done to me tomorrow.

Ah! If our dear Hugh had lived, how he would have enjoyed it!

Your [...]
W.T. Gairdner

29

su carta intestata:
225. St. Vincent Street,
Glasgow.
Sept^r. 21.93

My dear Friend,

I am writing from the house where we spent some days together years ago, but which is now (please observe!!) only my consulting chambers, which I only inhabit when my family are away in the country, as at present. I have a painful recollection that you have been in Glasgow since, & that you visited Sir William Thomson (Lord Kelvin) without knowing that I was only two doors away! so I don't wish you to fall into that error again! My family, as you know, are in Fife³¹, and will only return to Glasgow in October.

But meanwhile your kind letter invites me once more to come to you in April & to bring my son. Certainly it is a great temptation to do so, for I do think Rome is nearly at its very best in April & certainly not so in September. For this reason I was not at all sorry that the congress had to be postponed.

Though no doubt it is a great tax & misfortune for your officials.

I have great hopes that it will be possible for me to carry out the programme, and also my son; but it is not to be forgotten that for a physician to leave his work in April is sometimes difficult to arrange, and costs more to him than in autumn. My son is studying in London now, and I think the winter session will allow of an interval in April for him also; but his hospital duties will have to be considered.

I am most of all pleased to hear that the air of the Tivoli³² was so beneficial to your wife. I certainly should prefer it very much to Naples – even apart from cholera. Believe me dear friend

Your most [truly]
W.T. Gairdner

Sig. Luigi Cremona. Roma.

³¹ Contea scozzese.

³² Tivoli.

30

Signor Cremona, Roma
Senatore del Regno

su carta intestata:
9 THE COLLEGE,
GLASGOW.
Feb^y 27.94

My dear Friend

It is indeed a great pleasure & relief to my mind to know that la signora [*in italiano*] is so much better as to be able without serious difficulty or risk to receive her guests, & I shall very gladly take the opportunities of going to Rome as soon as I am released from my winter duties here, which so far as I can foresee, will be on the 23rd March (Good Friday³³), when I shall probably leave, my son joining me in London where he is now at his studies in the hospitals.

It is only right to say that I have not yet spoken or written to him as to the pleasure that is in store for him as the reward of his winters hard work, so it will come upon him as a surprise – but I do not expect any difficulty there

My wife is in England at what I believe is the deathbed of her mother – that fine old lady whom you may remember at Rome in 1885, when her daughter (now M^{rs} Sealy) was married there.

Her last unmarried daughter – your Signorina [*in italiano*] – took to herself a husband in April last, and most fortunately the old lady did not go to the Riviera thus winter, as if she had she would have died in a pension – but she is now at the Sealy' & has 3 of her daughters always with her, but suffers a good deal.

l'autore ha inserito una nota a bordo pagina: I commend myself with all my heart to Madame & I hope to find you well during the Congress your

W.T. Gairdner

25

31

biglietto postale indirizzato a:

Italy
Al Signore
Professore Luigi Cremona
Senatore del Regno
Roma

Glasgow March 14th 94

Dear Sig. Cremona, I received your welcome post card, which encourages me to hope for a very pleasant meeting soon; & I have only to regret that my son has still his Italian language to learn, & has only a limited stock of French.

I shall, however, set him a [journey] among the ruins, with his Baedeker³⁴ in hand, & perhaps I shall do a little of the same myself, neglecting thereby the Congress. After, all, Rome is Rome, & can never be seen too often or too much. When I recall that my first visit was in 1845-46, you will judge how much of change

³³ Good Friday - Venerdì Santo. Nel 1894 la Pasqua cadeva, infatti, domenica 25 marzo.

³⁴ Baedeker's guide, serie di guide turistiche molto note che presero il nome dall'editore tedesco che le pubblicò: Karl Baedeker (1801-1859).

there is, even among the eternities of the past, to me. “Non e piu³⁵ come era prima” [*in italiano*]. For better and for worse, that is true. With kindest regards to Madame

W.T. Gairdner

sul retro del biglietto postale l'autore scrive: I forgot in the inside to say that we start from London on the 24th March reaching Milan on the evening of 25th. I may possibly stay a day there or in Pisa

Please open & read the rest

W.T.G

32

Prof. Luigi Cremona, Rome

su carta intestata:

9 THE COLLEGE,

GLASGOW.

March 20th 94

Dear Sig. Cremona,

I have yet another Commission to announce; for I have just heard that I am to be a delegate in Rome for the Harveian Society of Edinburgh³⁶, which is this year under the presidency of my old friend and fellow graduate – Professor – or rather Professor Emeritus – of Anatomy in Aberdeen University, and a very distinguished anatomist³⁷. He writes to me that if he was allowed to give me a duty to do in Rome, as from the Harveian Society, it would be “to obliterate from the bust of Caesalpino in the University these words “Quod in generali sanguinis circulatione, agnoscenda ac demonstranda caeteros ante ceperit³⁸”, as untrue in fact, and insist to Harvey, although the rest of the inscription is correct enough.

I am by no means prepared to undertake so great a commission, as I do not accurately know the whole of the case: but I believe Harvey's reputation for originality and genius will not in the end suffer from the rivalry of your very notable botanist and physiologist, any more than for the famous passage in the work of Servetus – the Swiss³⁹ theologian who – with his book⁴⁰ – was burned by Calvin, to the disgrace of Protestantism in that age.

[...]

Yours most truly

W.T. Gairdner

I shall bring my credentials with me as the delegate of the University & the Harveian Society.

³⁵ Non è più.

³⁶ Società fondata nel 1782 con lo scopo di “commemorate the discovery of the Circulation of blood, and to cherish a kindly feeling among the Members of the Medical Profession” dedicata alla memoria del medico inglese William Harvey (1578 – 1657). Si veda: Royal College of Physicians of Edinburgh, *Laws of the Harveian Society of Edinburgh instituted 12th April 1782: with a list of members*, W. Balckwood & sons, Edinburgh, 1889.

³⁷ Si tratta di John Struthers.

³⁸ Si fa riferimento alla controversia, che ebbe inizio a metà del XVII secolo, su chi, tra Andrea Cesalpino (1519-1603) e William Harvey, avesse “scoperto” la circolazione sanguigna. Si veda: W.B. Fye, “Andrea Cesalpino”, *Clinical Cardiology*, vol. 19, Wiley Periodicals, 1996.

³⁹ In realtà Servetus era spagnolo.

⁴⁰ M. Servetus, *Christianismi Restitutio*, Vienna, 1553. Opera di teologia, scienza e filosofia, dove, per la prima volta in un libro a stampa, compare la descrizione della circolazione sanguigna, nello specifico, quella polmonare.

33

Sig. Prof. Luigi Cremona
Roma

su carta intestata:
225 St. Vincent Street,
Glasgow.
Pisa, Easter Sunday
afternoon⁴¹

My dear Friend

we have had a favourable journey thus far, and have seen the Easter ceremonies in the Cathedral here, but as we find that everything is closed in the afternoon, and not even the Campo Santo can be seen today, I had thought of going on to you today, but it has occurred to me that in my first visit to Italy, more than 40 years ago, I was much interested in the Etruscan city Volterra, and have never seen it since. I think, therefore of going over to sleep there tonight, and after spending a day there, to come to you at Rome tomorrow, only that I am sorry to say the train which is the only one possible for us in that case, arrives very late, at 23.30 or within half an hour of midnight, according to the time tables.

I am really sorry to arrive so late, but perhaps you will pardon it, as we shall want nothing but only to go to bed on our arrival.

Our hostel at Volterra will be Hotel Nazionale, but if I do not hear from you by wire⁴² I shall conclude that you approve this arrangement.

Your friend

W.T. Gairdner

27

34

su carta intestata:
225 St. Vincent Street,
Glasgow.
March 17.94

Dear Friend,

Between you and me it will make no difference in what quality or character I visit Rome, as I should have done so with equal pleasure in any case.

But it may be more or less important from the point of view of the Congress to have it clearly set down that I am to be there as the delegate and representative of the University of Glasgow – which, as founded in 1450 [*sopra la cifra zero c'è un'annotazione a matita: 1*] by pope Nicholas IV⁴³ [*cancellato*], ought thereby to be of interest to the Romans, & at all events is the second in order, according to date, among the Universities of Scotland, St Andrews' being about a ~~half~~ [*corretto in: a quarter of*] a century earlier [*a margine c'è un'annotazione a matita: 1411*]⁴⁴. I doubt if there will be any delegate from St Andrews present, as it is from the medical point of view a very small affair, comparatively; but the great University of

⁴¹ La lettera è stata scritta il 25 marzo 1894. Sappiamo, infatti, dalle lettere precedenti, che il viaggio di Gairdner in Italia si svolse nel 1894 e che Pasqua quell'anno cadeva il 25 marzo.

⁴² By wire - via telegrafo.

⁴³ Si tratta di papa Niccolò V che fondò l'Università di Glasgow il 7 gennaio 1451.

⁴⁴ L'Università di St. Andrews venne formalmente costituita con bolla papale nel 1413, ma i corsi iniziarono già nel 1410. Nel 1411 venne riconosciuta dal vescovo di St. Andrews.

Edinburgh will certainly be well represented, & I do not wish it to be otherwise – only please take note that it is quite 200 years younger than we are⁴⁵!! [*a margine c'è un'annotazione a matita*: 1583]

I am myself a member of both Universities, in Edin.^r an alumnus, M.D.⁴⁶ & LL. D.⁴⁷; in Glasgow a Professor, so in a certain sense I may claim to represent both.

With kind regards & hoping to meet soon

[...]

Yours most truly
W.T. Gairdner

Al Sig. Luigi Cremona

35

cartolina postale indirizzata a:

Italy

Professore Luigi Cremona

Roma

9 the College, Glasgow
1st October 1885.

My dear Friend

The bounties of Providence still rain upon us – we have yet one more baby-boy born just after coming home from our summer quarters⁴⁸. In these hard times what is one ever to do with such a lot!!

Yours, sorrowing

W.T. Gairdner

28

36

cartolina postale indirizzata a:

Italy

Al signore

Professore Cremona

Roma

Glasgow – Nov. 6. 85.

My dear friend, your congratulations were most pleasing to me – but it has nearly been a most costly baby⁴⁹, for my dear wife was as nearly as possible, gone on Tuesday last, and she is now very weak & ill, though I begin to hope she will in the end recover. You will hear of her soon through my brother who will be at his old lodgings in 14 Via Quattro Fontane same time next week

W.T. Gairdner

⁴⁵ L'università di Edinburgo venne fondata il 14 aprile 1582 con atto costitutivo del Re Giacomo VI di Scozia.

⁴⁶ M.D. - Medicinae Doctor – dottore in Medicina.

⁴⁷ LL.D. - Legum Doctor – dottore in Legge.

⁴⁸ Si riferisce probabilmente a un incidente in cui rischiarono la vita Gairdner e il figlio primogenito: Gairdner somministrò a se stesso e al figlio della morfina credendola una polvere digestiva, accortosi in tempo dell'errore chiese aiuto ai colleghi che salvarono entrambi. Si veda: G.A. Gibson, *Life of Sir William Tennant Gairdner*, J. Maclehose & Son, Glasgow, 1912.

⁴⁹ Si tratta dell'ultimo nato Anthony Philip.

James GLAISHER

37

29 avril 1879

My dear Mr. Glaisher,

I must beg your pardon as I have put off till now returning my best thanks for the estimable and interesting papers you kindly sent me some weeks ago. Your scientific activity always grows more fruitful; accept my sincere congratulations. My surprise at such remarkable fertility is justified when I remember you are also occupied, I believe, in publishing your great Tables on elliptic functions. Are you near having done?

Some months ago I addressed a letter to you asking for certain numbers of the Proceedings of the Camb. Phil. Society; but I suppose my letter went astray, and consequently I beg your permission to repeat my request. All I possess of the publications of the C.P.J. consists of Transactions vol. XII parts 1 and 2 Proceedings III parts 1 and 2. Should I be too exacting if I ask for the two prior volumes of the Proceedings? Especially I long for Maxwell's account on Bow's method of drawing diagrams in graphical statics, which I find mentioned in Ohrtmann's Jahrbuch⁵⁰, VIII, p. 568, as being in "Proceedings of Cambridge", vol II.

If you can satisfy this wish of mine, I shall be very grateful to you.

A month ago I was informed by a letter from Prof Hirst about my election as a foreign member of the R.S. of L.⁵¹ I have not yet received however the official intimation. To be sure, it is needless I should tell you, how strongly I was touched by so great a proof of sympathy from the English mathematicians. [*una annotazione riferita a questo paragrafo dice: a Cayley*].

I also dare to ask you another favour, which is to transmit to Prof. Cayley the enclosed card, with my kind regards to him and Mrs. Cayley, and my love to the little algebraist⁵².

Please, my dear friend, remember me to Prof. Maxwell and all friends of Cambridge and London. Ever yours sincerely

L Cremona

29

PS. I had of late the pleasure of seeing in Rome Prof. Smith of Oxford

38

24 may⁵³ 1879

My dear Mr. Glaisher

Yesterday evening I received by post the Proceedings of the Cambridge Philosophical Society you had the kindness to send me, viz.

Vol. I complete

Vol. II pages 20-30; parts 4, 7, 8 &c to the end.

Vol III parts 3, 4, 5.

I suppose the missing parts of the second volume not having been sent must be exhausted

I am very grateful to you for receiving my request favourably; accept my best thanks for it.

[*A matita*: Not having received the missing portions of the 2° vol: I naturally suppose they must be exhausted]

Please, give my remembrances to Mess^{rs}. Cayley and Trotter; and believe me

Yours sincerely

⁵⁰ Si tratta di *peer review* di studi matematici pubblicati annualmente a cura di Carl Ohrtmann e Felix Müller dal 1869.

⁵¹ R.S. of L. – Royal Society of London.

⁵² algebraist.

⁵³ May.

Arthur Bower GRIFFITHS

39

Su carta intestata: Dr. A.B. GRIFFITHS, F.R.S. (Edin.), F.C.S.,
Member of the Chemical Societies of Paris and St. Petersburg; Principal of the Brixton School of Chemistry
and Pharmacy; Analytical Chemist and Assayer; Consulting Chemist to National Amateur Gardeners'
Association; Diplômé de l'Institut de France (l'Académie des Sciences); Lecturer on Metallurgy at the
National Dental Hospital; Lecturer on Chemistry to the Hairdressers' Guild.

Author of "A Manual of Bacteriology", "Researches on Micro-Organism", "The Physiology of the
Invertebrata", "A Treatise on Manures", "The Diseases of Crops", "Manure and their Uses", "Special
Manures for Garden Crops", "Respiratory Proteids", "A Manual of Assaying", "The Chemistry of the Hair,
Face and Teeth", etc.

Bacteriological and Agricultural Expert.

Agricultural Analyst for the County Soke of Peterborough.

12, KNOWLE ROAD BRIXTON,
LONDON April 28 1900
Knight of the Imperial Order of the
Osmanieh⁵⁴ and of other Orders.

Analytical Chemist to H.R.H.
Princess Alexandra von Hohen-
lohe-Langeburg.

Hon. Member of the Pharmaceuti-
cal Society of S.W. France
(Toulouse).

Hon. Member of Society of Sciences
of Bucharest (Roumania).

Hon. Member of Sociedad Cientifica
Antonio Alzate (Mexico).

Hon. Corresp. Member of Pharma-
ceutical Society of Paris.

Hon. Member of Académie des
Sciences et Lettres de Mont-
pellier (founded 1706).

Hon. Member of Medical and
Surgical Society of Rio Janeiro.

30

⁵⁴ Ordine cavalleresco dell'Impero Ottomano per ufficiali in carriera per meriti militari, venne assegnato anche a
ufficiali inglesi al servizio dell'Impero Ottomano in Egitto e in Sudan.

Hon. Member of Royal Society of
Pharmacy Brussels.

Hon. Member of the Hairdressers'
Guild.

Fellow of the Research Society.

Member of Académie Nationale
(Paris).

Hon. Member of Société Royale
d'Horticulture et d'Agriculture
de Tournai.

Director of Metallurgical Laboratory
National Dental Hospital.

My dear Prof. Cremona,

I have the honour to inform you, that you have been elected an Honorary Member of the Society of Biological Chemistry (Membre honoraire de la Société de Chimie biologique), and that the Medal of the Society has been awarded to you⁵⁵.

The Diploma of the Society is enclosed with this letter, and the Medal is sent under separate cover.

With kind regards and best wishes,

Yours very sincerely,
(Prof. D^r.) A.B. Griffiths,
12, Knowle Road,
Brixton, London,
England

⁵⁵ Cremona rifiutò l'onorificenza che, secondo il suo parere, non poteva essergli attribuita in quanto geometra puro (cfr. lettera a Griffith del 19/07/1900, segnatrice 054-12952 in Archivio Cremona <http://www.luigi-cremona.it>).

40

Su carta intestata: Dr. A.B. GRIFFITHS, F.R.S. (Edin.), F.C.S.,
Member of the Chemical Societies of Paris and St. Petersburg; Principal of the Brixton School of Chemistry
and Pharmacy; Analytical Chemist and Assayer; Consulting Chemist to National Amateur Gardeners'
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National Dental Hospital; Lecturer on Chemistry to the Hairdressers' Guild.

Author of "A Manual of Bacteriology", "Researches on Micro-Organism", "The Physiology of the
Invertebrata", "A treatise on Manures", "The Diseases of Crops", "Manure and their Uses", "Special
Manures for Garden Crops", "Respiratory Proteids", "A Manual of Assaying", "The Chemistry of the Hair,
Face and Teeth", etc.

Bacteriological and Agricultural Expert.

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lohe-Langeburg.

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cal Society of S.W. France
(Toulouse).

Hon. Member of Society of Sciences
of Bucharest (Roumania).

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Sciences et Lettres de Mont-
pellier (founded 1706).

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Surgical Society of Rio Janeiro.

Hon. Member of Royal Society of
Pharmacy Brussels.

Hon. Member of the Hairdressers'
Guild.

Fellow of the Research Society.

Member of Académie Nationale
(Paris).

Hon. Member of Société Royale
d'Horticulture et d'Agriculture
de Tournai.

Director of Metallurgical Laboratory
National Dental Hospital.

My dear Prof. Cremona,

The Society of Biological Chemistry is an ideal research society as the whole of its funds is spent on research work. Its roll contains many of the most illustrious names in Science. I had the honour to propose your name for our Diploma and Medal which have been awarded to you.

I should be greatly pleased if you would get me elected an Honorary or a Corresponding Member of the Società Italiana delle Scienze or any other Italian Society of Science⁵⁶.

I should greatly value the honour, and would contribute papers to its journal.

I am the author of 120 original papers published in the –

- (1) "Comptes Rendus de l'Académie des Sciences de Paris", tomes 110-130, (32 papers)
- (2) "Proceedings Royal Society of London",
- (3) "Bulletins de L'Académie royale de Belgique",
- (4) "Journal of the Chemical Society of London",
- (5) "Bulletin de la Société chimique de Paris", etc.

I am the author of 10 books.

I have been awarded a Diploma by the Académie des Sciences de Paris, Gold Medal of the Académie Nationale (Paris), and £40 (forty pounds sterling) by the Chemical Society of London.

With kind regards

Yours very sincerely,
(Prof. D^r.) A.B. Griffiths,
12, Knowle Road, Brixton,
London, England

33

⁵⁶ Cremona rifiutò di intercedere per una onorificenza in favore di Griffith (cfr. lettera a Griffith del 19/07/1900, segnatrice 054-12952 in Archivio Cremona <http://www.luigi-cremona.it>).

Thomas HUDSON BEARE

41

12/11 86

Caro Signor Hudson Beare,

Ho ricevuto le vostre lettere 14 e 28, ed il Ms. della vostra traduzione, completo pel Calcolo Grafico (pp. 1-149) e parziale per le figure reciproche (pp. 1-25). Nella prima metà di ottobre avendo maggiore libertà e tempo, avrei potuto incominciare e spingere innanzi la revisione, se il Ms. fosse arrivato più presto. Tuttavia io spero di sbrigare il lavoro pel tempo da voi indicatomi o poco oltre.

Debbo rimandarvi il memorandum of agreement? Io non ho ricevuta alcuna lettera dai delegati della Clarendon Press, così che ignoro se essi si tengano impegnati a fare verso di me in questa occasione, ciò che fecero in occasione della Geometria proiettiva. Ma io confido che a ciò avrete già provveduto voi.

Circa le figure (illustrazioni), io non posso dirvi di più di quello che voi potete vedere da voi stesso. Nell'edizione italiana del Calcolo grafico, le figure sono litografiche; nell'edizione tedesca sono xilografiche. Quanto agli originali, io non ho nulla di più. Quelli dell'edizione italiana probabilmente non esistono più.

Per quelli dell'edizione tedesca e dell'edizione francese bisogna rivolgersi agli editori Quandt & Händel di Lipsia (o al sig. Curtze, Thorn⁵⁷) e Gauthier-Villars di Parigi (o al sig. cap. Bossut⁵⁸). Io non ho alcun diritto su di essi.

Credetemi anche nell'ediz. franc. delle figure reciproche le belle figure mi sembrano litografiche esse pure

34

⁵⁷ Toru, oggi in Polonia.

⁵⁸ Louis Bossut curò la traduzione in francese di "Le figure reciproche nella statica grafica": L. Cremona, *Les Figures Réciproques En Statique Graphique*, Gauthier-Villars, Paris, 1885.

spedita 21 ott. 1888

59

I return to you the three copies of the proofsheets⁶⁰ of R.F.⁶¹ which you kindly sent to me at different times. I quite agree with you on wishing to maintain the new redaction of the I Chapter. But as to the remainder of Mr. Pearson's suggestions I am inclined to think that they are nearly all good and acceptable. However I have canceled or modified some few of which I did not quite like. I think it rather useless and unimportant to explain symbols as $\beta\gamma$ for the line of intersection of plans α , β , etc., as I think it of little importance to adopt Bow's notation; but I leave this entirely to you.

I have no serious objection to use the words Vectorpolygon and Linkpolygon for kraftepolygon & Seilpolygon; though I should like to draw your attention to Clifford who uses Polygon of forces & Tiepolygon as to the substitution of stresses for internal forces, I quite agree with it. The copy which contains my corrections as well as those I accept as rendering but my ideas is M^r Pearson's, as it is also the one into which I have introduced M^r Price's acceptable suggestions.

I beg your pardon for having kept you waiting so long but urgent business prevented my attending to your translation earlier

I remain

Your faithfully
L.C.

As to mention the pages of the English publications quoted in the footnotes as according to M^r Pearson's suggestions, I beg you kindly to look them up as they are certainly easily accessible to you in the libraries of the University and of the Royal Society.

I leave to you to introduce in my preface those corrections or additions you think necessary.

35

⁵⁹ Si può desumere il destinatario dal contenuto della lettera visto che Cremona dà istruzioni al traduttore in lingua inglese delle "Figure Reciproche nella Statica Grafica" che era Hudson Beare (L. Cremona, *Graphical Statics. Two Treatises on the Graphical Calculus and Reciprocal Figures in Graphical Statics*, Clarendon Press, Oxford, 1890).

⁶⁰ proof-sheets.

⁶¹ Reciprocal Figures.

William HUGGINS

43

su carta intestata:
Royal Astronomical Society,
BURLINGTON HOUSE, LONDON,
W.
19 Nov.^r 1885

Dear Sir,

I have the pleasure to inform you that the Council of this society has granted you Vol IV of the memoirs which is wanting in your list.

They regret that volumes XXV and XXVII of the M.N.⁶² are out of print and that therefore they are not able to send you these volumes.

Part 18 will be sent you, which completes that volume.

Your set commences with Vol VII, before that date Vol I and Vol II are the only one we can give you, the others are out of print.

I regret we are not able to supply more completely what is wanting in your library

Yours faithfully
William Huggins
[...]

Il. Chiar.^{mo} segr.

[...] prof. L Cremona [...]

36

⁶² *Monthly Notices of the Royal Astronomical Society.*

Morgan JENKINS

44

cartolina postale indirizzata a:

Prof Cremona
5 San Pietro in Vincoli
Roma
Italy.

50 Cornwall Road
Westbourne Park
London
3 Dec 1884

Dear Sir,

I wrote to the printers at once on receiving your post card, and I heard from them a day or two afterwards saying they had just sent you the no. of copies (75) of your paper as ordered. I trust you have received them by now, and with high esteem I remain Yours faithfully

Morgan Jenkins

Horace LAMB

45

Sir,

Having had occasion of reading your excellent book on mathematical theory of the motion of fluids, I was astonished at the absence of Prof. Beltrami's name from your list of memoir.

Consequently I ask you for permission of writing here the title of Beltrami's highly important paper *Ricerche sulla cinematica dei fluidi*⁶³ (ann. 1871-2-4, *Memorie dell'Accademia di Bologna*).

My friend's address is

Prof. E. Beltrami

University

Pavia

(Italy)

Your obedient servant

Prof. L. Cremona

University

Rome

Horace Lamb

Professor of Mathematics

in the University of Adelaide

(Australia)

46

38

su carta intestata:

ROMA

R. SCUOLA

DEGLI

INGEGNERI

Rome, April the 10th 1880

My dear Sir,

Many thanks for your valuable papers "on the free motion of a solid through an infinite mass of liquid" and "on the conditions for steady motion of a fluid" you had the goodness to send me.

You do not need to apologize that omission in your bibliography; the enormous distance between Adelaide and Pavia is quite sufficient to explain it. I am very glad you have succeeded in procuring a copy of Prof. Beltrami's paper on the kinematics of fluids.

In the name of the scientific brotherhood of the geometers of all countries, I am, dear Sir,

Yours sincerely

L.C.

Mr. Horace Lamb

Prof. of Mathematics in the University of Adelaide

(South Australia)

⁶³ E. Beltrami, "Ricerche sulla cinematica dei fluidi", *Memorie dell'Accademia delle Scienze dell'Istituto di Bologna*, 1871, s. 3, t.2.

Charles LEUDESdorf

47

cartolina postale indirizzata a:

Al Sig.^r

Prof. L. Cremona

Senatore

5 San Pietro in Vincoli

Roma

Italy

Pemb: Coll: Oxford⁶⁴

May 19 [*aggiunto a matita*: 885]

Dear Sir

Your letter has just reached me; also the registered packet of printed proofs. I write at once to acknowledge receipt of these: I have not yet had time to look at them, but they shall be attended to at once. Let me also thank you very much for the testimonial you have been kind enough to send me.

Believe me

Yours faithfully

C. Leudesdorf

39

48

Caprile, 28 luglio 1884

Caro G. Leudesdorf

La vostra lettera del 14 luglio mi arrivò nel momento che stava per lasciar Roma e cercare un rifugio alpino contro il caldo. Come già avevo scritto al Prof. Price il mio progetto era di passare [...] fine del luglio e l'agosto nell'Oberland Bernese⁶⁵ e il settembre a Torino. Ma le precauzioni sanitarie che, in seguito allo scoppio del colera alla frontiera francese il Governo italiano ha creduto di dover prendere anche alla frontiera svizzera e in parte all'austriaca, per calmare i terrori (forse esagerati) delle popolazioni, mi hanno obbligato a cambiare totalmente i miei piani. Ho dovuto rinunciare alla Svizzera perché al ritorno in Italia avrei dovuto sottopormi ai fastidi di una quarantena, cosa poco piacevole tanto più, non essendo io solo ma co' miei figli. Invece ho dovuto impormi di non uscire dallo Stato; e allora, trovando inutile, per le stesse ragioni, di essere più o meno vicino alla Svizzera ho prescelto le Alpi del bellunese, che sembrano le meno esposte alle molestie delle precauzioni sanitarie. Segue da ciò che rimane poca speranza di concordare i nostri piani estivi; non avendo io il coraggio di proporvi una sì grande deviazione come sarebbe quella adottata da me, dall'Oberland al distretto d'Agordo e del Cadore.

Però io credo che ciò non avrà influenza perniciosa pel nostro lavoro. In ogni caso sono sempre disposto ad assistervi in tutte le maniere che potete desiderare.

Durante l'agosto io conto rimanere in questi dintorni: il mio indirizzo essendo Agordo per Caprile (Belluno) nel settembre conto essere a Torino.

⁶⁴ Pembroke College di Oxford.

⁶⁵ Zona alpina del Cantone di Berna in Svizzera.

Se dovessi mutare, vi aviserei; anzi in ogni caso vi avviserò avanti di lasciar Caprile; voi dal canto vostro mi terrete informato del vostro proprio indirizzo. Quando sarà terminata la vostra dimora a Zinal⁶⁶, dove andrete? Vi proporrei una convergenza a Torino o un punto delle Alpi piemontesi, se non vi dovesse esporre a una quarantena che ora credo sia stata portata a 7 giorni. [*l'autore ha aggiunto una nota: Alla fine di agosto o ai primi di settembre un nostro convegno non potendo farsi in Torino, per le ragioni sopradette, potrebbe aver luogo a Venezia? Pensateci, abbiamo tempo. Ma quand'anche non si potesse combinare nulla, io farò di tutto per assistervi, come ho detto di sopra anche leggendo il vostro Ms.*] Avanti il settembre io non potrò dirvi quando e in qual modo potrò comunicarvi le modificazioni e aggiunte; ma siate certo che farò in modo di affrettare il lavoro il più possibile.

L.C.

⁶⁶ Villaggio del Vallese in Svizzera.

Hubert Anson NEWTON

49

Prof. H.A. Newton, Yale College
New Haven Conn.
21-2-80

My dear Sir,

After receiving your letter of 24 Jan. I have made investigations about the likeness of Euclid, but without result.

I fear, such an authentic portrait does not exist anywhere. [*L'autore inserisce una nota: I never saw any in the numerous ancient editions of the Elements.*] Even the Bulletins de portraits published by Frederik Muller in Amsterdam makes no mention of Euclid. Somebody tells me a bust entitled Euclid perhaps exists at the Vatican Museum; but very probably it belongs to the Philosopher Euclid of Megara. It is known that for a long while, learned men made of the two Euclids (one only person) a single person; consequently even if "Euclid's likeness" can be found, who can distinguish between the Geometer and the Philosopher who were homonymous?

By your letter I learn with pleasure that you think of being in Rome in April. I hope I shall have the honour of making your personal acquaintance and to be to you of some little service.

With great respect
Yours most truly
LC.

Bartholomew PRICE

50

Copia⁶⁷

Secretary's room, Clarendon Press
Oxford, May 26, 1884

My dear Professor Cremona,

In reference to the proposal made to you by many mathematicians of Oxford, when you were on your visit here to Prof. Sylvester, I have now to say that the unanimous is that an English translation of your book on Projective Geometry should be published as soon as possible as the demand for such a work is great, and there is no English treatise fit to supply it. You will remember that when the question was under discussion, two plans were proposed, viz. (1) to wait for the expected edition of your whole work in the Italian language and to translate that. (2) to translate the German edition which was revised and corrected by yourself on the understanding that your⁶⁸ would assist the Translator and Editor with the additions and corrections which you have prepared for your new Italian Edition. Now as less time is required for the second plan than for the first, the second is preferred: and the Leudesdorf, whom you saw and conversed with, and who is a much competent person both as a mathematician and as a good linguist, is ready to undertake the work: and I understand that by your courtesy and with your consent he proposed to spend some part of the summer in Italy or Switzerland so that he may be near you.

All these circumstances have been [*spazio bianco*] to the delegates of the Press, and they are prepared to undertake the publication of the work paying all the cost of it, provided suitable arrangements can be made with yourself; the Leudesdorf, and with the owner of the woodcuts or (cliché) of the figures which are contained in the French Edition. This is of course a matter of business, as we say in England, and I have accordingly to ask you to [*spazio bianco*] the terms on which you will grant to the delegated the right to make and publish the translation as prepared, and on which you will assist the Leudesdorf with the additional matter which it is preferred to [*spazio bianco*] the English Edition.

I have also to ask whether you will allow Mr. Gauthier Villars the publisher of the French Edition, should your permission be requested, to supply us with clichés of the figures.

May I be allowed to express to you the pleasure which I personally⁶⁹ received from the renewal of an acquaintance which began several years ago.

Believe me to be

Yours ...

Bartholomew Price

42

⁶⁷ La calligrafia è quella di Cremona.

⁶⁸ you.

⁶⁹ personally.

16 June 1884

Dear Prof. Price,

I beg your pardon for having delayed till now my answer to your letter of May 26, which delay was caused by the great business I had to attend as soon I reentered home after such a long absence.

As I already told you, when in Oxford I am delighted by the prospect of an English edition of my book on projective geometry [*l'autore inserisce una nota*: to be published, by the Clarendon Press]: for this purpose I sent, some days ago, copies of the German edition to you, Prof. Sylvester and Mr. Leudesdorf. I am ready to assist Leudesdorf in all the desirable ways: viz. by affording the matter for additions, complement and improvements, by reading the proof-sheets for correction; and by supporting a preface on purpose for the English edition. As Leudesdorf is inclined to spend some part of next summer in North-Italy or in Switzerland, we shall be able to communicate and work together, since I intend to spend my holidays just between Turin and Bernen Oberland.

Be sure, I will allow Gauthier-Villars of Paris or Cotta of Stuttgart, if my permission should be wanted, to supply you with clichés of the figures.

But of to the terms you ask me in order to reward my grant & assistance, I have no claim to express; I rely entirely upon you & the Delegates of the Press; whatever your decision, either before or after the publication, may be, I shall be satisfied with.

Please, tell me whether you wish to receive a copy of the Italian or of the French edition; in what case, I will try to look after a second hand one.

But likely you can do without, as my book has been improved by myself in the former edition.

Please give my best remembrances to Mrs. Price and your lovely daughter, and to my dear friend Sylvester. Believe me for ever

Yours very affectionately
L.C.

Eugene Lamb RICHARDS

52

Hotel Vittoria
May 9th /82

Prof. Luigi Cremona

Dear Sir

By advice of my colleague, Prof. Newton of Yale College U.S.A., I apply to you for information as to where to find the literature of the subject of the introduction of Euclid into the government schools and gymnasia of Italy.

I particularly desire to learn what led to this movement and, if possible, to read the opinions of educators on the results.

I know that you are a very busy man, but if you could spare time to drop me a line you would greatly oblige

Yours respectfully
E.L. Richards.

53

Hotel Vittoria
May 11th 82

Prof Luigi Cremona

Dear Sir

Your kind letter of same date, accompanied by pamphlets, was handed to me this evening. Please accept my thanks.

If at any time I can be of any assistance to you please give the opportunity of returning your kindness to

Yours sincerely
E.L.Richards.

R.G. ROBSON

54

cartolina postale indirizzata a:

Prof. L. Cremona

5 S. Pietro in Vincolo [*sic!*]

Rome

Royal Irish Academy
Dublin, Nov. 25 1884

Dear Sir,

I send you by post to day some copies of your paper⁷⁰. If you wish for more please let me know and I will send you as many as you desire.

Yours faithfully
R.G. Robson pro. Sec. R.I.A

45

⁷⁰ Si tratta probabilmente di: L. Cremona, "On a geometrical transformation of the fourth order, in space of three dimensions, the inverse being of the sixth order", *Trans. of the Irish Acc.*, 28, 1884, 279-284.

Royal Society of London

55

To the Royal Society, of London

31/5 79

Gentlemen,

I hasten to acknowledge the receipt of my Diploma as a Foreign Member of the Royal Society. it reached me through the Italian Ambassador in London and our Foreign Office.

I am not able to express how deeply I feel the distinguished honour of being selected for admission into one of the most ancient and illustrious of the world's Scientific Academies; and how warmly I appreciate the high privilege of such honourable connection with the most eminent leaders of natural philosophy.

I propose to demonstrate, at not a distant period and as well as I am able, my sincere gratitude by some contribution to the Philosophical Transactions, if you will think it worthy of being admitted to such an honour. In the mean time, accept gentlemen, my warm thanks which I send you through this letter.

Believe me, gentlemen,

Yours with much respect
L.C.

John Wellesley RUSSELL

56

16, Bardwell Rd
Oxford
Feb 26th 1894

Dear Professor Cremona,

I am a candidate for the post of deputy of the Savilian Professor of Geometry in Oxford⁷¹. I write to you in the hope that you will assist me with a testimonial. I feel sure that a good word from a person like yourself who is renowned all over the world for his great discoveries in Pure Geometry will be of great assistance to me. I am myself a humble student of the subject of Projective Geometry; and have in my "Elementary Treatise on Pure Geometry"⁷² tried to systematize and popularize this beautiful branch of the science of Geometry, thus rendering the results arrived at by Chasles, yourself and other geniuses more accessible to the several public. This book has been sent to you by the Clarendon Press – if you have not received a copy, I shall be pleased to send the volume by [...] of post.

Besides writing this book, I have two papers in course of preparation (i) on "Threefold Homography" which is to be read this week at the Oxford Mathematical Society's meeting. Of this I enclose an account (ii) on "Generalized Cross Ratios" which is not ready and will deal with cross ratios of the n^{th} order on a line, in a plane (area cross ratios), and in space (volume cross ratios) with applications to cubic curves, quadric surfaces, etc.

I have to apologize for disturbing your learned labour by this application; but I feel that a favourable testimonial from you will be of more value than all the rest of my testimonials put together, and will have great weight with the Electors.

With all respect and regard, I am
Your obedient servant
J.W. Russell

47

57

16, Bardwell Rd
Oxford
March 14th 1894

I. Professor Cremona

Dear Sir,

I now have the honour of enclosing an original paper of mine on the subject of Threefold Homography. I shall be glad also to send you a copy of my book on Pure Geometry if you have not already received one.

I am a candidate for the post of deputy to the Savilian Professor of Geometry in the University of Oxford. A good word from a savant like yourself in my favour would have great weight with the Electors who all know of you as the highest authority on this branch of geometry.

⁷¹ Cattedra istituita nel 1619 da Henry Savile alla Oxford University.

⁷² J.W. Russell, [*An elementary treatise on pure geometry: with numerous examples*](#), Clarendon Press, Oxford, 1893.

As a humble student of the subject in which you have made so great a reputation, I venture to ask you to give me a testimonial for this post.

With every sentiment of respect

Yours faithfully
J.W. Russell

58

16, Bardwell Rd
Oxford
March 24th 1894

Dear Sir,

I am exceedingly

obliged to you for your kind letter just received. I send by this post a copy of my book⁷³.

It was published in Feb 1893 and I understood the Clarendon Press to say that they had sent a copy to you.

I am sorry to have caused you this inconvenience and delay.

I have to send in any papers I wish to place before the Electors on or before April 14th – so I fear the time is rather short

I have already succeeded in forming a theory of cubic curves by means of threefold homography – but I have not had time to fill in the details.

Thank you for giving me the reference to your paper – I will take the first opportunity to read it.

With every sentiment of respect and regards

Yours truly
J.W. Russell

⁷³ Cfr. nota 72.

George SALMON

59

[03/1884]⁷⁴

Dear Professor Salmon,

You guessed right fancying that I should be sorry to learn the terrible illness by which your daughter was attacked and which is not yet at its end. Accept from my daughter also our warm wishes for the speedy and whole recovery of your dear invalid.

I have accepted the invitation to Edinburgh and shall be Prof. Chrystal's guest. For a double reason I wish to meet you there; and then it will be to see whether I shall be able to cross Ireland returning home, an arrangement which woul⁷⁵ be very very delicious for me.

With the best remembrances from my daughter & from any colleagues who held the honour to be introduced to you in Rome,

Believe me

Your very sincerely
L.C.

60

26 march⁷⁶ 1884

Dear Prof. Salmon

You guessed right fancying that I should be sorry to learn the terrible illness with which your daughter was attacked and which is not yet at its end. Accept, honoured Professor, from my daughter also, our warm wishes for the speedy and entire recovery of your dear invalid.

I have accepted the flattering invitation to Edinburg and shall be Prof. Christall's guest. For a double reason I long to meet you there; and then it will be to see whether I shall or not be able to cross to Ireland, in returning home: an arrangement which would be extremely delightful to me.

With best remembrances from my daughter and from my colleagues who had the honour to be introduced to you here in Rome, I remain, dear Professor

Your very sincerely
L.C.

61

cartolina postale indirizzata a:

Sig.^r Professore Cremona

S Pietro in Vincoli

Roma

[07/01/1885]⁷⁷

I thank you for the papers and my daughter join me in thanking you for the beautiful card

We all heartily join in best New Years Wishes and in kind remembrances to your daughter

Ever yours
G. Salmon

⁷⁴ Si tratta della bozza della lettera seguente (n. 46), quindi scritta probabilmente a marzo del 1884.

⁷⁵ would.

⁷⁶ March.

⁷⁷ Data dedotta dal timbro postale.

Henry John Stephen SMITH

62

su carta intestata:
University Museum,
Oxford
Dic 30, 1876

Dear M. Cremona,

I have to thank you very much for the card, and photograph of yourself, which you have been so kind as to send to me.

I now send you a few photographs of Oxford, which I hope will reach you safely. I am obliged to send them unmounted, and rolled on a roller, as the only safe way for them to travel. I hope they may serve to remind you of your brief visit to Oxford, and encourage you to repeat it, as soon as possible.

I also send you the few printed papers of mine, of which you are not likely to have copies by you already.

Lastly, I send you the memoir “*Sur les équations Modulaires*”⁷⁸ about which I wrote to you once before; and I shall be very much pleased, if you can publish it in the *Annali di Matematica*. It was presented by M. Chasles to the Accademy at Paris in August, 1873; and I have just received it back from M. Hermite, who was one of the “Commissaires” to whom it was referred. M. Hermite has not expressed any opinion adverse to it, but he was very much occupied with more important matters, and found the geometry in it very troublesome to him. I really believe it to contain a good many new results of some interest; and I hope not many mistakes.

I have added to it another paper “*Note sur les Fonctions Elliptiques Complètes*”⁷⁹, which is very brief, and which (if you can find room for so much of mine) might appear either before, or after, the longer one.

I had hoped to have spent a part of my winter vacations this year in Italy; but the pressure of many occupations has forced me to postpone this pleasure for a time. You may be quite sure that I shall not fail, whenever I can manage to come to Rome, to call on you at S. Pietro in Vincoli.

With all best wishes for your happiness during the New Year.

Believe me to remain
Most truly yours
Henry J S Smith

50

P.S. the Photographs are numbered on the back to correspond with the following list.

N° 1. High Street (with St. Mary’s church, University College, Queen’s College).

N°2. Magdalen College from high Street.

N°3. Magdalen College (interior of Quadrangle)

N°4. Merton College (from the field – a part of Christ Church is also seen)

N°5. New College (Garden front)

N°6. University Museum

N°7 St John’s College (Garden front)

N°8. Old Clarendon Press, & Sheldonian Theatre.

⁷⁸ H.J.S. Smith, “*Mémoire sur les équations Modulaires*”, *Atti della Regia Accademia dei Lincei. Memorie della classe di Scienze fisiche, matematiche e naturali*, 1877, Ser. iii, Vol. i, pp. 136-149.

⁷⁹ H.J.S. Smith, “*Sur les Intégrales Elliptiques Complètes*”, *Atti della Regia Accademia dei Lincei. Transunti*, 7 gennaio 1877, Ser. III, Vol I, pp. 42-44.

63

su carta intestata:
University Museum,
Oxford
January 26, 1877

Dear Professor Cremona,

I have to thank you very much indeed for submitting my note “on the complete elliptic integrals⁸⁰” to the Academy dei Lincei, and for your kind proposal to deal in the same way with the paper “on the modular equations⁸¹”.

Nothing would be more acceptable to me that my papers should appear under your auspices, and that you should think them deserving of presentation to your Academy.

In accordance with your permission I send you a résumé of the paper on the Modular equations.

It is just within the maximum limit of two pages of your Comptes Rendus.. I am quite sorry it should be so long, but I found it difficult to make myself intelligible in a less space.

Pray suppress it altogether, if you think proper.

You will notice that, in the last paragraph, I venture to ask leave to send you a paper on a problem of Jacobi’s; this is in fact nearly finished, & I should much like to send it to you in the course of the present year. But you must not allow me to trespass upon you too often.

I am very sorry to say that the accounts which reach me of the health of our friend Hirst are not very reassuring. When I last heard of his movements he was in Egypt, but not deriving as much benefit from his journey as his friends could wish.

Believe me to remain
with sincere thanks
most truly yours
Henry JS Smith

51

64

University Museum
Oxford
March 16, 1877

Dear M. Cremona,

I am quite ashamed to have kept the enclosed proof so long.

Your printers have been extremely accurate: so that the fault is entirely mine. But I was anxious to perform some of the calculations, of which only the results are given, over again, to guard myself against error; and this, in the midst of a number of other occupations took me some time

I hope the delay has not put you to much inconvenience.

Believe me to remain
with many thanks
most truly yours
Henry JS Smith

⁸⁰ Cfr. nota 79.

⁸¹ Cfr. nota 78.

65

6 May 1879

My dear Mr. Smith,

Your post card reached me, accept my best thanks for your kindness. Mr. Blaserna and Mr. Bodio had given me, with your compliments, news of you and your ascension of Vesuvius. I regret also I was not able to spend some time with you in speaking of our dear science. My desire would have been to gather you, Mr. Reye, Mr. Kronecker and some friends of Rome in my house; but Mr. Reye passed through Rome almost without stopping; and the official dinners kept you, Mr. Kronecker and myself engaged all the last days. Mrs. And Mr. Kronecker are still in Rome; but they are going in a few days to continue their journey towards the South.

I avail myself of the opportunity in order to ask your participation etc etc

If Mr. Respighi did not mistake, (I must infer from his information) that your sister was with you in Italy.

I am very sorry I did not know of her presence in Rome; otherwise I should have asked for the honour of being introduced to her. I also missed the opportunity when I paid you a visit in Oxford, because she was abroad. I hope, I shall be more fortunate the next time I return to England.

Please, continue your benevolence toward me and believe me

Your sincerely
LC.

66

su carta intestata:
University Museum,
Oxford
24 June 1879

52

P.S. you write English so perfectly, that I am sure you must write it with ease. But please write to me in French or Italian, if it gives you less trouble.

Dear Professor Cremona,

I ought to have answered your kind letter six weeks ago; but I can plead with truth that these last six weeks have been the busiest in my life. Our vacation has now just begun, and I lose no time in replying to you.

First, are you at all likely to come to England this summer? The British Association meets at Sheffield this year on the 20th of August, and you might take Oxford either on the way to Sheffield, or on the way back. I need not say how pleased my sister and myself would be to welcome you here: and we would have all the conversations about Geometry which we could not have in Rome.

Secondly, I should be much pleased to join you in the volume you propose to dedicate to the memory of Prof. Chelini.

I think I have a paper ready which would suit you. It is in Latin, and is entitled "Observationes in Fractiones quasdam Continuas⁸²". I wrote it many years ago, and sent it to Crelle⁸³, just before his death. After his death it was returned to me, with a request that I would compare it with the long memoir of Prof. Stern

⁸² H.J.S. Smith "De Fractionibus quibusdam continuis" in: E. Beltrami, L. Cremona (a cura di), *Collectanea Mathematica (In Memoriam Dominici Chelini)*, U. Hoepli, Milano, 1881, pp. 117-143.

⁸³ Il giornale *Journal für die reine und angewandte Mathematik* fondato nel 1826 da August Leopold Crelle divenne presto conosciuto con il nome di "giornale di Crelle".

(Crelle Vol LIII pp 1-102⁸⁴); and return it to the journal after having made any alterations in it I might think proper. But, when I received the paper again, my mind was occupied with other questions, and I never took the trouble to make the alterations (though very slight ones) which were needed. Lately, however, I have had to turn my attention to the same sort of enquiries, and I find my old paper still quite as new, as it was when it was first written, I am afraid 22 years ago. It relates to the employment of periodic continued fractions in finding certain single quadratic forms of prime numbers: the question is a very old one; but the method by which the continued fractions are treated appears to me to have some interest, and some of the results are new in substance as well as in form: I will venture to say that the Latin is a little better than mathematical Latin usually is; and that, although the enquiry lies in a very narrow field, it is not devoid of elegance.

If, after what I have said, you think the Paper would answer your purpose, will you send me a post-card to that effect, and you shall have it without delay. It would occupy about 20 pages, but I would shorten it; in any case I should carefully revise it.

I have been thinking of you a great deal lately; for I have been reading over again your papers on skew cubic surfaces; I need not say with how much pleasure. I always find it impossible to go beyond you in anything you have touched; but I am preparing a short note for the "Messenger of Mathematics"⁸⁵ pointing out, for the use of Students, that these surfaces present the simplest examples of two remarkable geometrical phenomena (1) of a "one sided surface" i.e. of a surface on which you can pass from a point on one side of the surface, by a continuous track, to the same point on the other side of the surface.

(2) of a line belonging to a surface, and yet having no real sheet of the surface passing through it: one of the segments, into which the double line is divided by the two cusps (in the case when these are real), being a line of this kind.

My sister was in Rome with me; but she did not arrive till after our last interview. She begs me to say how sorry she is not to have met you, and how much she hopes you will come here, and pay us a visit for some days. Ever very truly yours

Henry JS Smith

53

67

5 July 1879

My dear Professor Smith

I cannot tell you how pleased I am with your friendly letter. Any paper whatever which you will contribute to Chelini's memorial volume will be welcome; therefore the one which you offer me so kindly, suits me perfectly, the more so as its subject and its being written in good Latin makes it ever so much more interesting. [*L'autore ha inserito una nota*: It is unnecessary you should shorten it] Please send it directly to the Editor, Mr. Ulric Hoepli, Milan; because probably I shall start from Rome in a few days and go to the Alps as a refuge from the rapidly growing heat of the season [*L'autore ha inserito una nota*: as I shall pass through Milan on my way to the North, I shall have the pleasure of seeing there your paper.] But, if you write me, you can always address to Rome.

This summer I shall not go far beyond Italy; at the farthest (outside), I shall ramble in Switzerland or in Tyrol. Consequently I am obliged to decline your kind invitation for this year, but, while I return my best thanks to you and your sister, I take the liberty of citing the Latin motto "Quod differtur non aufertur", and keeping your invitation for another year.

Speaking of my small papers on skew cubic surfaces, you are too benign towards me. I am sure you have remarked on the first page of my note in Crelle's Journal tome LX, that the definition of the "singular"

⁸⁴ M.A. Stern, "[Zur Theorie der periodischen Kettenbrüche](#)", *Journal für die reine und angewandte Mathematik*, Vol. 1857, Issue 53, pp. 1-102.

⁸⁵ Giornale di matematica pubblicato tra il 1872 e il 1929, fondato da William Allen Whitworth e Charles Taylor.

Cayley's cubic scroll is an incomplete one; in its stead one must assume that which has been given by Cayley at the end of Schläfli's paper in Philosophical Transformations vol. 153, part I, pag. 241. Of the two geometrical phenomena you tell me in your letter, the first one is quite new and unexpected to me. The fact of the existence of one-sided surfaces, which I had learned from Möbius' paper on volumes of polyhedral, was always very interesting to me, but I did not suspect that surfaces as simple as cubic scrolls could present that remarkable property

I am expecting with the greatest longing the appearance of your paper in the Messenger of Mathematics.

I thank you for your permitting me to answer you in French or Italian. It is sure that it would give me less trouble, but I take every opportunity of writing In English (when I have time) to exercise myself in your noble language. Unfortunately I have little confidence of succeeding in speaking and understanding it when spoken. I am too old for it!

I beg you to renew my most respectful regards to your sister, and believe me, my dear Prof. Smith,

Yours sincerely
L.C.

Robert Henry SMITH

68

su carta intestata:

From PROF. ROBERT H. SMITH
ASS. M. I. C. E., M. I. M. E., M. I. E. L. E.,
WHIT. SCH., MEM. ORDER MEIJI

[*Cancellato:*

124, HAGLEY ROAD,
AND MASON COLLEGE
Birmingham]
Pensione Gianelli
Via Ludovisi
Roma
21 Dec ? 1896

Al Preg^{ssimo} Sig.^r Pres. Cremona

My dear Sir,

I cannot leave Rome without writing to express my most grateful thanks for your extremely kind reception when I called upon you the other day and also for the most useful introductions you gave me. I have examined completely the works at Tivoli and at Porta Pia in Rome, and also the tram-car mechanisms in the Magazzino in via Dogali. I have found them extremely interesting, and they appear to me to be carried out in excellent & thorough fashion.

Sig.^r Mengarini has been most hospitable & kind to me and has stinted neither his own time nor that of his assistants in showing & explaining everything to me. Sig.^r Fucci has been also extremely obliging, and I have been received with equally hospitable attention by Sig.^r Baravelli at the Società degli Ingegneri.

Once more pray accept my best thanks for your friendly assistance. Will send you the programme of Mason College as soon as I return home.

I am dear Sir Yours most sincerely
Robert H Smith

55

69

Memorandum

su carta intestata:

PROFESSOR ROBERT H. SMITH

ASS. M. I. C. E., M. I. M. E., M. I. E. L. E.,

[Cancellato:

124, HAGLEY ROAD, and MASON COLLEGE

BIRMINGHAM]

Milano

7 Jan.^y 1897

Preg^{ssimo} Signor Pres. Cremona

My dear Sir.

The Secretary of Mason College has sent me here the engineering programme of Mason College but has not sent the whole "Calendar" or "Syllabus". However what he has sent contains complete information regarding the Engineering Department: and I forward it to you by this post.

I resigned my post in Mason College last October. I have been Engineering Professor & Manager of the Eng.^y Department here for 15 years, and you may note that the programme for the present session (in which my name does not appear) is the same as that for last session. The school was commenced in 1881 and was wholly organized by me as far as the engineering is concerned. The College contains 13 professorships in Science and Arts and 12 in Medicine. I resigned my post because the Superior Council was not giving fair play financially to the development of my engineering school, which contributed 38 per cent of the whole fee revenue of the Science & Art College.

Trusting that the scheme of engineering study laid out here may be of interest to you, and again thanking you for your kind reception in Rome

I remain

Yours very sincerely

Robert H Smith

Smithsonian Institution

70

To the Secretary
of the Smithsonian Institution
Washington

[1881]⁸⁶

Dear Sir,

Please excuse our involuntary delay in answering your kind letter of Jan. 19th: by it we learn with greater satisfaction that you have ready for shipment from New York 26 cases of Exchanges consisting of documents of the United States Government, Transactions of American learned societies, &c. presented to our Government & to the Societies and savant in this country.

In order to forward the boxes, we have commissioned Mr. Ulrico Hoepli of Milan, your representative in Italy, to receive and transmit them from New York to their destination at our expense.

I beg to inform you that Signor Castellani is no longer the librarian of this Library now and for the future our address must be simply

Alla Biblioteca Vittorio Emanuele
Collegio Romano

Roma
Italy

57

I am, dear Sir,

Truly yours
L.C.

⁸⁶ La lettera è stata probabilmente scritta nel 1881, Cremona, infatti, fu in carica come commissario regio della biblioteca dal giugno 1880 fino al 14 settembre 1881 sostituendo il direttore Carlo Castellani al quale fa riferimento nella lettera; inoltre dalle registrazioni delle spedizioni dallo Smithsonian Institution alla Biblioteca Vittorio Emanuele (centro ufficiale di smistamento per l'Italia) risultano spedite solo 5 casse nel 1880 e ben 46 nel 1881; è quindi probabile che le 26 casse alle quali si fa riferimento siano state inviate nel corso del 1881. (Cfr. G.H. Boehmer, "History of the Smithsonian exchanges", In: Smithsonian Institution. Board of Regents, [*Annual report of the Board of Regents of the Smithsonian Institution showing the operations, expenditures and condition of the Institution for the year 1881*](#), Washington, 1883).

William SPOTTISWOODE

71

Hotel de la Ville, Milan.
14 sep 1869

Dear Sir

I was very sorry to find that you were not in town when I called upon you yesterday; although I hardly hoped that you would be here at this season.

I hope that you will have safely received Prof. Smith's paper, of which I left a printed copy with Hirst's letter & our cards. With this I venture to send you a paper which I have just written, upon a subject connected with the contact of surfaces. Perhaps you will kindly let me know whether you would be disposed to accept it for your Mathematical Journal.

As I shall be a little anxious to know that Prof. Smith's⁸⁷ paper, (of which there are so few copies in existence) has reached you safely, perhaps you will kindly write me word addressed either to the Hotel Europa Venice (where we shall be from Saturday or Sunday next, for a few days), or to the Poste Restante⁸⁸ Florence, where we propose going in the course of next week, for about a week.

I have only to add that when you next come to England, we hope that you will kindly recollect that our address in London is 50 Grosvenor Place, that it will give us great pleasure to see you.

Believe me dear Sir
Very faithfully yr
W. Spottiswoode

In the event of your inserting my paper in your journal, I beg that you will kindly correct the errors (of which there may be many) in the French Expressions.

58

72

Venice 20 Sept. 1869

Dear Sir

I am very much obliged to you for your kind letter, & also for your obliging invitation to visit you at Gravedona. I greatly regret however that our time will not permit my availing myself of your kindness as we must leave this city on Wednesday for Florence. I will not fail to convey your message both to Prof. Hirst & to Prof. Smith.

We shall all look forward with great interest to seeing you next year at the meeting of the British Association, which promises to be a very good one.

Thanks also for your intentions about my paper.

Believe me yr truly

W Spottiswoode

⁸⁷ Smith's.

⁸⁸ Fermo posta.

73

Grosvenor Place
London 4 Febr 70

My dear Sir

Since I had the pleasure of calling upon you in September I have made some further researches in the subject of the paper which I offered for publication in your journal. These lead me to wish for an opportunity of incorporating the results in the paper in question, & of modifying to some extent the interpretation which I gave to the formula. As I did not keep a complete copy of the paper, I venture to ask you to return it to me by post, for the purpose mentioned.

Our friend Hirst is now very busy delivering a course of lectures on Elementary Geometry to a large class of ladies!

Pray offer my compliments & [...] of Mrs Spottiswoode to your lady & believe me yrs very sincerely
W. Spottiswoode

74

50 Grosvenor Place
London
12 Aug. 1870

My dear Sir

I have sent you by todays post a (corrected) proof copy of my paper relating to sextactic points on surfaces. I ought to tell you, if our friend Hirst has not already done so that it is hereafter to be published in the Philosophical Transaction of the Royal Society⁸⁹; but as it will be some months before it is published, I still send it in case you should be disposed to insert either the results or the whole in your journal.

If it be your wish that I should translate it into French I would gladly do so; & if you write to that effect I will send the translation in a very few days. In conclusion pray be assured that if, in consequence of its future publication in the Phil. Trans., you decide not to bring it out in your journal, I shall be quite satisfied with your decision, & shall hope on some future occasion to make you another communication.

We regret that we are not able to come to Italy again this year, but we hope to do so once more at no very distant period.

With best compliments to Madame

I remain dear Sir
very sincerely yr
William Spottiswoode

59

⁸⁹ Si tratta probabilmente di: W. Spottiswoode, "On the contact of Surfaces", *Philosophical Transaction Royal Society of London*, 1872, 162, pp. 259-282.

75

41 Grosvenor Place
London S.W.
26 nov. 1877

My dear M^r Cremona

Our old friend Hirst remind us that you are still kindly wishing to have our photographs. I am very glad to send them, & hope that this will reach you safely with this letter.

We have had a very pleasant visit from Sig. Brioschi; & only regret that his stay was so short. But we hope to see him again in January or February.

I am glad to give a pretty good report of Hirst. I think that you did him great good by making his stay in Rome so pleasant.

We should much like to persuade you to come once here for the meeting of the British Association, which is to be held next year in Dublin, about the middle of August. It is likely to be a well arranged meeting, as the people in Ireland are anxious to make it a success.

With kind regards from Mrs Spottiswoode

I remain

very sincerely yours

WSpottiswoode

76

41 Grosvenor Place
London
24 Feb. 1878

60

My dear Signor Cremona,

We are very sorry to have been so lazy in sending the photographs for which you were good enough to ask. But here it is at last. And I have persuaded Mrs Spottiswoode to allow me to send hers also, in recollection of the pleasure which your little visit to Combe Bank⁹⁰ gave to both of us.

We hope that you may come to England again this year, & that you may then give us a little more time. The meeting of the British Association is in the middle of August (begins on the 15th); will it be possible for you to be present?

We have lately had a visit, only too short, - from Sig. Brioschi.

Hirst continues pretty well in health; but I wish he were stronger. His sojourn in Rome among congenial friends certainly did him good.

With kind regards from Mrs. Spottiswoode.

Yrs sincerely W Spottiswoode

⁹⁰ Residenza di Spottiswoode nel distretto di Sevenoaks, contea di Kent (UK), dal 1924 sede della Combe Bank School.

Dear Mr. Spottiswoode,

I have this moment received my Diploma as a Foreign Member of the Royal Society of London. As I already wrote to our common friend, Mr. Hirst, who first sent me the unexpected news, this election caused me the greatest satisfaction. One may think that he has at least partially fulfilled his task, when he has deserved approbation of the most eminent and competent men. However, the conscience of my own weakness warns me that this act of the Royal Society, so highly honorable for me must have been suggested by the benevolence of its illustrious President, whose personal acquaintance I had the fortune to make at the time of my visit to England (1876).

Therefore I think, it is right for me to return you my best and warmest thanks.

In order to demonstrate my gratitude to the Royal Society, I intend preparing in the next holidays a geometrical memoir and trying to write it in English, to be sent to the honourable Company.

I was informed by Prof. Smith of Oxford, whom I had the pleasure of seeing in Roma on the occasion of the meteorological meeting, that before the British Association you made a very interesting speech on mathematical science you treated, with happy perspicuity, of the four- and more-dimensional spaces⁹¹. Would you be inclined to do me the favor of sending me a copy of that speech? I should be very thankful for it.

I always remember with pleasure the delicious day I spent with Mr. Hirst in your villa at Combe Bank⁹². I shall never forget the perfect kindness of you and your highly distinguished lady, your lovely boys and the scientific, artistic and natural wonders of your splendid dwelling.

As to our dear Hirst, I am very sorry that his health is not so good as could be instead.

Please, give my remembrances to Mrs. Spottiswoode and our common colleagues Hirst, Cayley, Smith, Tyndall, Debus, &c.

Believe me, my dear Mr. Spottiswoode,
your very grateful
& affectionate
LC.

61

William Spottiswoode, M.A.⁹³ LL.D.⁹⁴
41 Grosvenor-Place, S.W.

⁹¹ spaces.

⁹² Cfr. nota 90.

⁹³ M.A. – Master of Arts – Dottore in Lettere

⁹⁴ Cfr. nota 47.

78

su carta intestata:
Athenaeum Club
Pall Mall S.W.
5 June 1879

My dear Prof. Cremona,

Many thanks for your kind & welcome letter. You are right in supposing that I took the initiative in proposing you as Foreign fellow of the Royal Society. But your name was at once received with such unanimity that it needed no further advocacy on my part. We are all rejoiced to enrol your name in our list. I have very great pleasure in sending to you by this day's post (addressed at the Acadamia [*sic!*] dei Lincei) a copy of my address at Dublin. I hope that you will not think it too fanciful.

May we hope to see you again in England this year. If so, pray consider yourself engaged beforehand to visit us at Combe Bank.

I will not fail to give your messages to Hirst & to all other mathematical friends.

With kind remembrances from Mrs Spottiswoode

I remain
Very sincerely yours
William Spottiswoode

79

su carta intestata:
ROMA
R. SCUOLA
DEGLI
INGEGNERI
17 June 1879

62

My dear Mr. Spottiswoode,

Your kind letter of 5th instant and your address at the meeting of Dublin reached me. I heartily renew my thanks for your initiative with the Royal Society; and assure you that I have read your address with the greatest pleasure. Your exposition of the purpose of the British Association and the results of its authority, as also of all the means with which learned societies and individuals in your country powerfully and indefatigably promote the advancement of science has much interested me. I ardently wish that my own country might follow the noble example of yours!

Your sagacious remarks also on the still growing extent of the dominion of mathematics have been read by me with equal interest. You are right in saying that the interest of an address consists in the individuality of the mode in which topics are treated.

But the points where you speak on some processes peculiar to modern Mathematics have a special attraction for me. I do not find your remarks fanciful at all. According to my opinion, you have succeeded very well in giving a view of different instances of manifold space, and of non-Euclidean Geometry. Rather, I think that someone might find you not bold enough on these subjects. In fact, Riemann has shown that a space, analogous to ours, viz. of constant curvature might be unbounded and not infinite, and this would be really the case if the curvature were positive. Now the question might be put whether our space be finite or not, were it only to come to the conclusion that the question cannot be resolved. Such questions make the hair of many mathematicians stand on end; and many philosophers do not comprehend them at all. But I am of opinion that the reason of this is our habit of exclusively considering the Euclidean space.

This year also I cannot plan travelling beyond Italy or Switzerland; meanwhile I cordially thank you for your kind invitation; and the first time I am able to return to England I will without fail pay you a visit in your delicious villa at Combe Bank.

Begging you to present my remembrances to Mrs. Spottiswoode, I remain, my dear Sir,

Your sincerely
LC

80

timbro:

TELEGRAPH STATION.
SUNDRIDGE.

COMBE BANK
SEVENOAKS
6-10-79

dear Prof. Cremona, How much we wish that you were here at this moment, to see our trees beginning to put on their autumnal dress. We have now almost the first sunshine that we have enjoyed this year; and you know how much we value a few of the rays which fall so abundantly in your country.

My present object is however not so much to dwell on the beauties of mature⁹⁵, as to ask you a practical question. I am now collecting materials for the annual address which it is my duty as President of⁹⁶ to make to the Royal Society next month; and I venture to ask if you can very kindly mention to me any topic connected with science in Italy which may appear to you suitable for mention on such an occasion. My enquiry may be considered to include anything of note in respect of scientific education, or of other encouragement to the prosecution of Research.

I venture to forward by post to your address, four copies of a paper on Electrical Discharges by myself and a friend, in the hope that you will accept one, and offer the others to any friends whom they would interest.

With kind regards from Madame,

[fin qui il testo è battuto a macchina]

Very sincerely yrs W Spottiswoode

⁹⁵ nature.

⁹⁶ to.

[10/1879]⁹⁷

Dear Sir,

Your kind letter of the 6th instant reached me. I beg your pardon if my answer be not so prompt and satisfactory as you may wish. In a contrary manner to what happens in England, only these last days our sky is beginning to grow cloudy, as till now it was nearly always clear, during the whole summer. But I spent August and September on the Alps in Switzerland, as you can be informed by our common friend Hirst, whom I had the pleasure to meet several times. I should be very desirous of accepting your kind invitation and visiting England rejoiced by the sunshine; unfortunately my scholastic business already began since 1st instant and at present I cannot leave Rome.

With our Hirst I engaged to come to England at the latest in two years, when the 50th meeting of the B.S. will be held at York. Undoubtedly I shall then have the pleasure of paying a visit to Mr and Mrs Spottiswoode.

As to the question you ask me, I am sorry to have too little to tell you. Of late, the most prominent scientific news was, I think, Schiaparelli's astronomical and physical observations on the axis of rotation and topography of Mars [*Cremona aggiunge una nota*: Atti della R. Accad. Dei Lincei 1877-78 (3° serie) Mem. della Classe di IC fis. mat. e nat. Vol II p. 308⁹⁸] which brought our Government to propose and the Parliament to grant the expense necessary (for buying) to buy a great equatorial refractor and to place it at the Brera Observatory in Milan⁹⁹.

I am not able to decide about the worth of Rossetti researches on the Sun's temperature [*Cremona richiama una nota che non è presente nella lettera*] and the temperature of the voltaic arc and of the two polar extremities of the coals at the moment of the production of electrical light [*Cremona richiama una nota che non è presente nella lettera*].

In pure mathematics we had interesting papers of Ascoli, Beltrami, Brioschi, Caporali, De Paolis, Dini, &c (Atti dell'Accad. Dei Lincei; Rend. Dell'Ist. Lomb, Annali di matem, dim. Teorica ect.)

I return my best thanks to you for the copies of Spottiswoode and F. Moulton's highly important paper on Electrical discharges through rarefied gases¹⁰⁰, which I shall not omit to give to friends able just to appreciate the subject

I ask you permission to enclose here a little answer to Mr. Williamsons' circular letter

Please continue me your precious affection and give my remembrances to Mrs Spottis and common friends

Yours very sincerely
LC.

64

⁹⁷ Si tratta della risposta alla lettera di Spottiswoode datata 6 ottobre 1879 (si veda lettera n. 80), lo si può dedurre dal testo, inoltre Cremona afferma che i corsi sono iniziati il primo del mese corrente, è possibile quindi ipotizzare che sia stata scritta nell'ottobre 1879.

⁹⁸ G.V. Schiaparelli, "Osservazioni astronomiche e fisiche sull'asse di rotazione e sulla topografia del pianeta Marte fatte nella reale specola di Brera in Milano coll'equatoreale di Merz durante l'opposizione del 1877: Memoria del socio G.V. Schiaparelli", *Atti della Reale Accademia dei Lincei: Memorie della classe di scienze fisiche, matematiche e naturali* 3, n. 2 (1877-78), pp. 3-136.

⁹⁹ Il finanziamento per il nuovo cannocchiale fu votato dal Parlamento nel 1878, lo strumento giunse a Brera nel 1882.

¹⁰⁰ W. Spottiswoode, J.F. Moulton, "On the sensitive state of electrical discharges through rarefied gases", *Philosophical Transaction of the Royal Society*, 1879, 170, pp. 165-229.

82

timbro:

TELEGRAPH STATION.
SUNDRIDGE.

COMBE BANK
SEVENOAKS
27 March 1883.

Dear Mr. Cremona, Many thanks for sending me the extract from the Proceedings of the Academy of the Lincei, giving an account of your notice of the late¹⁰¹ Professor Henry Smith; and also for your kind mention of my little article¹⁰² on him in "Nature". I cannot say how much we feel the loss of our friend in very many ways. He was one of the most capable man of our time.

I wish that I could give a better account of the health of our other old friend Hirst. But he hopes, in the course¹⁰³ of the present year to be relieved of some of his official work which certainly now hangs rather heavily upon him.

Pray remember that, while we admit that we owe a visit to Rome (a debt which we only require the time to fulfil) we are always hoping for another visit from you here.

With kind regards from Mrs. Spottiswoode,
I remain yours very sincerely
[fin qui il testo è battuto a macchina]

W Spottiswoode

83

65

Hotel Paoli. Florence
2 May 1883

Dear Mr Cremona, Mrs Spottiswoode and I are in Italy for a very short holiday, & we intend moving on to Rome on Friday (May 4). It will give us great pleasure if we can have the opportunity of seeing you during the few days which we can spare before turning our steps northward.

We have secured rooms at the Hotel Bristol, & hope to stay until Thursday the 10th.

If there should happen to be a meeting of the Lincei during our stay, I should be much interested to attend it. But we beg you not to disturb any of your important business on our account.

I shall bring you the latest news of Hirst & of our other mathematical friends.

Believe me
Ys very sincerely
W Spottiswoode

¹⁰¹ the late.

¹⁰² little article.

¹⁰³ course.

84

timbro:

41, GROSVENOR PLACE.

S.W.

22 May 1883.

Dear Mr. Cremona, I have much pleasure in telling you that we have found our way home, after a most agreeable tour, and that among all the places which we visited Rome stands prominent in our recollections. In fulfillment of our promise we send photographs of Mrs. Spottiswoode and myself. I have not yet seen¹⁰⁴ Hirst; but it is not possible that many days can elapse without my doing so.

With kindest remembrances from us both, to yourself and your daughter, I remain yours very sincerely,
[fin qui il testo è battuto a macchina]

W Spottiswoode

¹⁰⁴ seen.

Christina Margaret STRUTHERS

85

18 July 1883

Dear Mrs. Struthers,
having been out of Rome, your interesting pamphlet on the admission of women to the Scottish University¹⁰⁵ reached me after a considerable delay. I beg, accept my best thanks for the goodness you had to send me it.

I have read in it with great pleasure the excellent reasons which support the cause pleaded by you with such a remarkable ability. I wish you a complete success. In Italy this cause does not meet strong opposers; women are admitted to our universities, without inconvenience; and some of them acquired the high degrees.

Please, give my remembrance to Professor Struthers¹⁰⁶; and believe me

Yours sincerely
L.C.

86

cartolina postale indirizzata a:

Professor Cremona
S. Pietro in Vinculi [*sic!*]
Roma

67

Pension Anglaise – Bordighera – Italy – March 15 [1885]¹⁰⁷

Dear Prof.^r Cremona I was sent here to recruit from general weakness (especially my head) two months ago. I am now so much better that my D.^r permits me to take the great pleasure [...] my husband has planned for me of a visit to Rome [...] only a sadly short time in the Eternal City as the friends whom I must join there c/o about the 28th March [...] leave April 10th.

Before that I am to spend a few days with a dear friend in Naples [...] accordingly leave this at seven o'clock on Tuesday evening the 19th reaching Rome about one o'clock on wed [...] I hope to get a train for Naples at four twenty [...] so as to arrive that night. Could you tell me how best to dispose of the intermediate three hours. My only excuse for asking this is that I would be delighted to do the same for you or yours.

The Miss [...] are so busy I do not like to trouble them. Shd [*should*] I hear nothing from you I should do my best at the station but with no Italian it is not so pleasant. M.^{rs} Christina Struthers of Aberdeen

¹⁰⁵ C. Struthers, *The Admission of Women to Scottish Universities*, J.R. Smith, Aberdeen, 1883.

¹⁰⁶ Sir John Struthers, marito di Christina Margaret Alexander Struthers.

¹⁰⁷ Dal timbro si deduce che l'anno è il 1885.

James Joseph SYLVESTER

87

Johns Hopkins University
Baltimore 30 Jan 1882

My dear Prof.^r Cremona – I was charmed to receive your young friend M Valeri and the kind message for myself which your letter of introduction contained. D^r Valeri attended a sister of mine (as her Physician) many years ago in Rome.

Very many thanks for the precious volume – “Collectanea Mathematica¹⁰⁸” which I have duly received

I have requested our administration to send you the circulars you request

In the ensuing number by the Circulus you will see a short communication from M Cayley (who is passing his semestre among us) and one of my own “On a geometrical proof of a theorem in numbers¹⁰⁹” which may perhaps interest you as I obtain in it intuitively Jacobi’s fundamental proposition for showing that a function in 3 periods is impossible – and a much more general theorem than the one wanted for that purpose.

M Valeri has obtained a position in connexion with the Baltimore and Ohio Railway where he will have an opportunity of learning a good deal of his profession, through the interest of the President of the [...] Garrett one of the Railway Kings of America.

I feel grateful for the recollection of me and my visit to Bologna by yourself and family and hope before very long to pay another visit to Italy and repeat the agreeable impression any former visit afforded me.

Will you do me the favor to send me some article in Italian or French for our Journal which shall be either published in the original or translated into English as you may prefer? I should esteem it a great honor to be favoured with anything from you.

Believe me,
Dear Senator and Prof.^r
Yours sincerely [...]
J.J. Sylvester

68

¹⁰⁸ L. Cremona, E. Beltrami (a cura di), *In memoriam Dominici Chelini. Collectanea mathematica nunc primum edita cura et studio L. Cremona et E. Beltrami*, Hoepli, Milano, 1881.

¹⁰⁹ J.J. Sylvester, “On a geometrical proof of a theorem in numbers”, *The Johns Hopkins University Circular*, February 1882, pp. 179-180.

Mary Isabella TADDEUCCI

88

Dear Professor, with whom are you continuing to learn English? I am jealous for you must have some one who has taken my place as teacher!! Who is it? I have received from Florence all my documents for the presentation of my request to be admitted as candidate for the English Examination & I will take you at your word & send you my request when written & I am sure if you exert your powerful influence in my behalf the commission will meet even for poor me. Please tell Elena your charming & dear nice daughter (you know I am no flatterer) that if she had any intention of coming to see me this afternoon not to do so as me dine out before six.

Believe me dear
Professor Yours very sincerely
M. I. Taddeucci

Write all the letter you have & send them to me, though really they need no correction

Peter Guthrie TAIT

89

16-3-83

Dear sir

Extremely welcome, as well as unexpected¹¹⁰ the diploma of my ascription to the celebrated Royal Society of Edinburgh¹¹¹ has come to hand. In such a highly honorable proof of esteem I dare not see any acknowledgment of my little contributions to the science which I exercise, but rather an effect of that wonderful benevolence which, in spite of great distance and diversity of language and nation, unites all scientific workers into a single family.

I wish to be able, no distant future, to be present at a meeting of the Royal Society Edinburgh, and to read a paper as a token how much I prize the honor bestowed on me. Meanwhile, till this hope become¹¹² reality, I ask you, Sir, please to participate to the President and all Colleagues the expression of my deep thankfulness.

I take the opportunity of thanking you for your important papers “on knots¹¹³” and “on the pressure errors of the Challenger¹¹⁴ thermometers” you had the kindness to send me; and of assuring you of my high consideration

Yours very sincerely
L.C.

Professor P.G. Tait
Edinburgh

70

¹¹⁰ unexpected.

¹¹¹ Luigi Cremona venne eletto Membro onorario della Royal Society of Edinburgh il 19 febbraio 1883.

¹¹² becomes.

¹¹³ P.G. Tait, “On knots”, *Proceedings of the Royal Society of Edinburgh*, 1877, vol. 28, pp. 145-190.

¹¹⁴ Tait analizzò i dati raccolti nell’ambito della spedizione oceanografica “Challenger” (1872-1876) sulla temperatura delle profondità marine: P.G. Tait, “The pressure errors of the Challenger thermometers”, *Report on the Scientific Results of the Voyage of H.M.S. Challenger during the Years 1872-76*. London: Her Majesty’s Stationery Office. *Physics and Chemistry*, 2, London, pp. 1-76.

su carta intestata:

ROMA
R. SCUOLA
DEGLI
INGEGNERI
[1884]¹¹⁵

Dear Prof. Tait

I thank you very much of your kind letter. I wish you have not to take much trouble for my sake. The chief point to me was to be previously informed about the ritual or academical or other duties of the LLDs¹¹⁶.

You have relieved me by the information that there will be no occasion for speeches from them. Your silence about other duties gives me the notion that will be no place for such ones. Consequently it seems useless to give any answer to the circulars of several university robe makers offering their services for supplying me “with the necessary gown, hood and cap” and instigating me to give my order at as early a date as possible “to prevent disappointment and inconvenient at the last moment.”

I shall expect quietly¹¹⁷ the printed programme of the whole intended proceedings, which you tell me will be sent to all invited guests, long before the period fixed for the ceremony

At last I come to your question. I have studied, though in late age, the English language under a good master; therefore I am able to read books and write letters, when not hurried. But in conversing my power is very very little and I want a great deal of patience and indulgence from my interlocutors

su carta intestata:

ROMA
R. SCUOLA
DEGLI
INGEGNERI
Rome, March the 23th [1884]¹¹⁸

Dear Professor Tait,

I thank you very much for your kind letter. I did not wish you to take trouble for my sake. The chief point to me was to be previously instructed about the virtual, academical or other duties of the LL. Ds.¹¹⁹ You have relieved me by the information that there will be no occasion for speeches from them. Your silence about other duties gives me the notion that there will be no place for such.

Consequently it seems useless to give any answer to the circulars of several “University robe makers” offering their services for supplying the LL. Ds “with the necessary gown, hood and cap” and instigating “to give orders at as early a date as possible to prevent disappointment and inconvenient at the last moment”.

¹¹⁵ Si tratta probabilmente della bozza di una risposta alla lettera di Tait del 13 marzo 1884: si veda P. Nastasi (a cura di), “Lettere di Peter Guthrie Tait a Luigi Cremona (1884-1892)”, In: *La corrispondenza di Luigi Cremona (1830-1903) volume II – Serie di Quaderni della Rivista di Storia della Scienza n. 3*, Università degli Studi di Roma “La Sapienza”, 1994, p.165.

¹¹⁶ Legum doctor – in inglese Doctor of Laws. Cremona fu insignito del titolo, honoris causa, In occasione del Terzo Centenario dell’Università di Edimburgo, nel 1884.

¹¹⁷ quietly.

¹¹⁸ Cfr. nota 115. Questa e la precedente (n. 90) sono bozze della stessa lettera.

¹¹⁹ Cfr. Nota 116.

Instead of it, I shall wait quietly for “the printed programme of the whole intended proceedings”, which you tell me “will be sent to all the invited guests, long before the period fixed for the ceremony”

At last, I come to your question I have studied, though at a late age, the English language under a very good master; therefore I am tolerably able to read books and write letters, when not hurried. But in conversing my power of speaking English is very very little, and I need a great deal of patience and indulgence from my interlocutors.

Believe me

Yours sincerely
L.C.

92

su carta intestate: ATHENAEUM CLUB – PALL MALL
14 april¹²⁰ 1884

My dear Professor Tait

I beg your pardon as I have not yet answered to your kind letter of the 1st instant. Please, accept my excuses, & my thanks for your friendly invitation to dine with you on the 18th.

I am very sorry to say you that it will be impossible to me to protract my permanence in Edinburgh till the 21st April and to satisfy my duty toward the Ed. Royal Society. Time & leisure were wanting to me in order to prepare something not entirely unworthy of the high Company who conferred upon me the honour of choosing me as one of their fellows. Shall not a meeting of R.S. take place in short time at Edinburgh? I would prepare myself for such an occasion and realize, then, what I see not the possibility to do now.

I shall be at Edinburgh tomorrow before evening.

Believe me always, my dear Prof. Tait,

Yours affectionately
L.C.

72

¹²⁰ April.

cartolina postale indirizzata a:
Professor Cremona,
Roma
(Italy)

36 George Square, Edinburgh
11/7/84

My dear Prof. Cremona,
your packet has arrived safely.
The content will be laid before the Council today. I have to thank you for the separate copy of Pagliani's paper; as well as for the number of the Annali (Germano Sommeiller) which latter (as I presume it to be your private copy) I will return when you wish it. When I have data enough I will write to Prof. Pagliani.
Yours truly
P.G. Tait

[*l'autore ha inserito una nota:* I have got drawings of all the 8 fold + 9 fold knots nearly ready for publication!]

William THOMSON (Lord Kelvin)

94

su carta intestata:
THE UNIVERSITY
GLASGOW

Lord Kelvin desires to express his warm thanks to Professor Cremona for his kind sympathy in the great loss which has come before him.

Robert TUCKER

95

29-6-85

Dear Mr. Tucker

In arranging the Proceeding of the L.M.S.¹²¹ I noticed that n° 189, 189 (containing pag. 14[5]-176 of vol. XIII are wanting.

May I beg you to send me them?

Is Mr. Hirst in London. If you see him, please tell him I am longing to have news from him, I heard nothing after april¹²².

[la lettera si interrompe]

75

¹²¹ London Mathematical Society.

¹²² April.

Gustav TYSON-WOLFF

96

7 May 1879

My dear Mr. Wolff (Bradford)

I have received with the greater pleasure your very beautiful photographic portrait, for which I return you my best thanks. You are dressed in a magnificent garment; it is quite different to what you wore in Zuz and in our foot journey on the Munster-Thal and Stifels-Joch¹²³.

I suppose, it is your robe as a Professor of Music. But, I hope, I shall see you again in your old Alpine coat, next summer. My intention still is to spend my holidays on the Alps, but instead of stopping in the same place, as last year in Zuz, for the greatest part of my disposable time, I intend to roam on the mountains and be in continual movement as I did with you and Mr. Jung for a few days last year.

I hope, Mr. Jung and other friends of ours will do the same. When our plan will be quite settled, which will be in July, I will inform you about it; it would be a great delight for us if you consent to be of our party, at least for some portion of the season.

And now, good bye; my dear Mr. Wolff. I always remember with pleasure the fine and delightful days I spent with you and our young friend in September 1878. Send me word of your health, your family and your plans for the summer; and believe me

Your sincerely
L.C.

76

97

18 may¹²⁴ 1879

My dear Mr. Wolff

Your kind letter of the 4th instant crossed one of mine, of the 7th, in which I returned you my best thanks for your beautiful portrait which I had received with the greater pleasure. I hope, my letter reached you.

I learn with sorrow that you were afflicted by misfortune and illness in your family; & that yourself and your lady are not yet recovered. You acted very prudently making up your mind to leave your business and go for rest in a charming and salubrious place, near your relations.

I am not acquainted with Baden-Baden, but since you (designated it as) (call it) a “paradise” I (much desire) (wish very much) to see it. However it will be impossible for me to meet you there, because I shall start from Rome only about the middle of July. My plans are not yet exactly settled, but as soon as they will be, I will inform you with all possible details.

On your part, please, let me know all your changes of residence; in this way, I hope, we shall be able to meet in some point of the Alps and to undertake together some walking excursions, among those innumerable wonders of nature, which exalt the mind and delight the senses. I shall be very (glad) (pleased) if we can spend some weeks together (like) (as we did last year. But our (companion) (fellow-traveller) Mr. Jung is a treachery; a few days ago, I was informed by himself that he is (engaged to be married) (betrothed) to a young lady of Milan. Of course, he will for some time pour water on the fire of his enthusiasm for the mountains.

¹²³ Probabilmente intende “Stilfser Joch” cioè il Passo dello Stelvio, in tedesco.

¹²⁴ May.

As you can see from this and foregoing letter, I try to exercise myself in the English language.

Therefore, it is useless you should take the trouble of writing in French; if you will write in English or in German, I hope, I shall be able to understand you pretty well, and even answer in the same language. If we meet on the Alps, I will also try to speak a little English; will you be so kind as to assist me and correct my mistakes?

Mr. Blaserna is a professor of Physics at our University and consequently a colleague of mine. I communicated to him your congratulations about his book on sound and music; and he was very pleased to hear them and begged me to return you his thanks.

And now good bye, my dear Mr. Wolff auf wiedersehen in der Alpenwelt!

Send me word about your movements.

Yours sincerely

98

15 June 1879

My dear Sir & friend,

I return you my thanks for your kind congratulations on my English. These praises on your side show me that I must be very grateful to my clever teacher. Unfortunately I cannot yet succeed in speaking English as tolerably as writing it; and it is just with reference to this incapacity of mine, that, in my last letter, I had asked your assistance when I shall be with you trying to speak English.

My plans are not yet fully and definitively settled, especially because I must previously discuss them with those friends of mine who were last year with me at Zuz, in order to foresee, if possible, a combination which may be agreeable to all parties. I spoke many times about you to my friends; and I can assure you that you will be pleased with them, as they are much better than I.

No doubt I shall spend about two months on the Alps; the indecision falls uniquely on the region to be preferred for our excursions.

I should be much inclined to begin with Val d'Aosta, which is surrounded by respectable mountains! Such as Mont Blanc, Monte Rosa, Matterhorn¹²⁵, Gran S. Bernardo, Gran Paradiso, &c. and includes such interesting station as Gressoney, Valtournanche, Courmayeur, Cogne &c. If you consult "Baedeker's"¹²⁶ Switzerland" or "Garret & Bich's Guide illustrée de la vallée d'Aoste"¹²⁷ you will see that those places are very worthy of being visited by tourists. From Grand St Bernard we should descend to Martigny and enter into the Berner Oberland¹²⁸; and after having crossed it from West to East, the region of the Rhine might be the spot of our further rambling.

What would you think of such a route for Alpine travels if it should be the definitive one? Should you agree to it?

I think very seriously and anxiously of my possible meeting with Mrs. Wolff.

You did not do me good service bestowing on my person so much praises and imposing on me the hard perhaps chimerical task of coming up to them! On this occasion, you have forgotten the duty of indulgence with which everyone must act towards his friends! Please pour cold water on your kindness in speaking of me with your lady in order that she should not find me too inferior to your description!

¹²⁵ Cervino in tedesco.

¹²⁶ Baedeker's. cfr. nota 34.

¹²⁷ Guida turistica edita nel 1876 a cura degli alpinisti Amé Gorret (1836-1907) e Jean-Baptist Bich (1822-1903), che parteciparono alla prima ascensione al Cervino dal versante italiano.

¹²⁸ Zona alpina del cantone di Berna in Svizzera.

I will write to you again as soon as I have definitively settled my plans; at all events I shall not start from Rome before the middle of July. If I do not anticipate the pleasure of meeting you, by starting directly and coming as far as Davos, it is only on account of absolute impossibility.

Good bye; write me soon and believe me, my dear sir and friend

Your affectionate
L.C.

99

su carta intestata:
ROMA
R. SCUOLA
DEGLI
INGEGNERI
23 Luglio 1879

My dear Mr. Wolff

Perhaps you think I have forgotten my promise of informing you about my Alpine tour. But I am not so faulty. I went to Pavia, in order to confer with my colleagues, one of whom will bring his wife to the Alp. You are already acquainted with them, Mr. and Mrs. Beltrami, as they were with me in Zuz, last year, when you arrived there on the eve of our departure.

The result of a long discussion was, that St. Bernardino in the Valley of Mesocco¹²⁹ (not far from the Spluga) will be our head-quarter, viz. the centre of our excursions. I hope you will enter into this agreement and come there with Mrs. Wolff. I cannot leave Rome before the first of August; I will then conduct my family to Perugia, where they intend to spend the holidays, and after that I will hasten towards the Alps.

I shall arrive at St. Bernardino about 8th of the abovenamed month.

Please, write me whether I may encourage myself in the hope of seeing you at S. Bernardino. In the mean time, good bye, my dear Mr. Wolff; I am

Yours sincerely
L.C.

78

¹²⁹ Val Mesolcina.

(tra il 15 gennaio e il principio d'aprile 1880)

A Wolff

I feared you might be angry with me for my long silence; but after your twelve friendly pages, together with a kind letter from Mrs. Wolff, I feel reassured. I am very grateful to you and her for your clemency and for the great pleasure you caused me by writing. This time I address my answer to you in order not to excite your jealousy: but you must indemnify me for such a loss by getting me excused by your beetrave.

My wife is getting better, though her legs are still very weak. She charged me to return her regards and thanks to Mrs. Wolff for her testimonials of sympathy. The whole of my family eagerly wish to make the acquaintance of the Wolffs, of whom I speak so frequently and so lovingly. Shall we not meet some day somewhere all together? The Alps should be the spot of our meeting. Unfortunately I see from Mrs Wolff's letter that you, next summer will not leave England; and if one day I shall visit the Albion island again, my Chancellor [*sic!*] of the Exchequer¹³⁰ will not permit me the grandeur of having a train of four persons!

Also for me the remembrance of Parpan¹³¹ is full of delight. And if days of Parpan were so delicious the whole merit belongs, I think, to the amicable Wolffs who introduced into our society the elements of a hearty liveliness. I read again and again the description of your colossal tour on the Septimer and Aversel [*sic!*] Thal¹³², following with my eyes Badeker's¹³³ maps

I regret very much that I was not with you, though your description in some parts be not encouraging.

If you found the way forwards the Forcellina¹³⁴ very fatiguing, and the path after Crest¹³⁵ most wretched, dangerous and abominable, how should I have found them whose legs and feet are so much weaker than yours? Of what kind was the danger of the way in the Averser Thal?

I am not sure I have understood well what you mean by the word schmelze¹³⁶ [*in tedesco*]; is it a foundry, a smelting house which you met not far from the postal Splügen road? How did you sleep so miserably in Cresta, of which my Badeker [*sic!*] says: bon gite chez le curé [*in francese*]? ... Poor Mr. Wolff!

But after all I am astonished, even frightened at the rapidity of your excursion; if one day I shall have the pleasure of undertaking a tour in your company, you will permit me to beg you for a more moderate rate of walking, also in order better to enjoy the delight of the Alpine scenery.

From what you tell me of Casorati and his likeness I recognize the ladies' man, as you well call him

And as Mrs. Wolff succeeded in translating his Italian letter, I infer it is not quite exact that she has not yet commenced learning Italian.

And now good bye. I hope, you will allow me next time to write to your better half, notwithstanding your shameful jealousy and your inexcusably forgetting the leave voluntarily you granted me at Parpan, to court her in order to exercise myself in English speaking!

With kindest regards to Mrs. Wolff believe me

Yours sincerely

LC

¹³⁰ Chancellor of the Exchequer - Ministro del Tesoro.

¹³¹ Ex comune svizzero del Cantone dei Grigioni.

¹³² Val d'Avers, in tedesco Averser Thal.

¹³³ Cfr. nota 34.

¹³⁴ Passo della Forcellina.

¹³⁵ Probabilmente si tratta di Cresta, frazione di Avers.

¹³⁶ In tedesco significa "materiale sciolto".

26 aprile 1880

Mr. Wolff

My dear friend,

I am not at all angry with you, but I began to be anxious about your health or about the lot of my last letter. Therefore, having been informed that Beltrami was going to write to you, I asked him to mention me. And now I am very glad to be assured that Mrs. Wolff and your blooming children are well; only yourself want the common sense of enjoying perfect health!

Last week I had to take a run to North-Italy, and there, at the railway station of Pavia I saw for a few moments Beltrami and Casorati, and knew that the former also had received a letter from you.

Before your letter of the 14 inst., I had received the prospectus of the Bradford school of Music. I believe without difficulty that it must keep you very busy, and eagerly wish hard work may improve your health and bring you much money [*L'autore inserisce una nota*: but it is impossible for me to fancy my dear friend Wolff, in all his stateliness, teaching his pupils with disciplinary gravity!]

From your letter I see it is unlikely that you will come to Switzerland this summer. As for me, I have not yet made any plan or, better said, I (am) find myself oscillating among several projects. The enthusiastic descriptions I have read in Ball's Alpine Guide and elsewhere of the Italian Alps (Alps of Piedmont, Lombard valleys) make me blush, who being born and dwelling in Italy has always sought for relaxation, amusement and change of scene beyond its borders.

In other respects, however, the greater probability of meeting friends in Switzerland carries with me powerful attraction. Very likely my wife, needing mineral waters, will go to Ischia (near Naples) with the daughters who can there take sea-baths.

The place is celebrated for its fascination; but I fear, if I should indulge myself by staying in that mild and attractive Eden, I shall lose the opportunity of bracing my body in a cool Alpine clime. Rather, the idea of not being a great way off from my family, should carry me on the Appennins¹³⁷. Between Pistoia and Modena there is a spot praised even by English tourists, named Boscolungo or Abetone; covered with green meadows and immense forests of fir and beech-trees; high 1400 meters (nearly 4600'¹³⁸) above the sea; with a very good hotel and a cool, delicious temperature. If this description could bring you all to Italy...! What fun for me!

For next year I have always my favourite plan of coming to England, then, I will have probably the pleasure to introduce my eldest daughter to Mrs. Wolff.

Thank you for the informations¹³⁹ about your road through Averser Thal. Your description is not very encouraging!

Good bye for today. My best remembrances to your better half and my love to your four little angels.

Yours sincerely
LC.

80

¹³⁷ Apennines.

¹³⁸ 4.600 ft.

¹³⁹ information.

Rome, S. Pietro in Vincoli
1880 June, the 6th

My dear friend Mr. Wolff,

I should be very happy if I were able to do you the service you ask me in your last letter.

Unfortunately Italy has been for some years, quite an exhausted field; the situations vacant, from time to time, become less and less numerous than the candidates¹⁴⁰ for them and they are not filled but by concourse and examinations which grow more and more difficult. Believe me, difficulties here are not easier to overcome than in Germany.

If from time to time a foreigner, especially a German, succeeds in obtaining a professorship or any other employment, it happens only after a long stay in Italy, living our life, publishing papers or books in Italian and almost becoming a citizen. Therefore, if your brother wishes to be employed as teacher in one of our high schools, he must come among us and prepare himself to pass some years here [*l'autore inserisce una nota*: as he has passed six years in America, as a common soldier skirmishing against the Red Skins, I think he can also venture to spend a shorter time in our poor country whole inhabitants are no longer used to wear plumes on their heads.] I am ready to do for him what I would do for yourself, that is to say, to introduce him to my acquaintances and procure him the support of learned men who cultivate the same studies as himself. [...] I promised more, I should be to blame, as my engagement would extend itself to things which do not depend on my good will.

My dear friend, I am very glad of the good news of your lady and your chicks. I should like to be able to see them soon! But I hope next year. I see from your letter that in this one you have no intention of leaving your sweet nest where you find yourself so well off; as for me, I am not in a position to go abroad. My wife is not quite well; since some weeks she is forced to keep her bed, and as soon as she will be able to get up, I will take her to the Bagni di Lucca, a fine and delicious place among the green hills at the beginning of the Central Apennines. There my family will spend all the holidays; and I must not go a great way off, only to make excursions and take trips in the higher surrounding mountains. When I start from Rome, I will give you my country address.

I have to thank you heartily for the sechs charakteristische¹⁴¹ stücke [*in tedesco*] you had the goodness to send me. They are now being studying; I hope some day my younger daughter will be able to play them.

And now, good bye, my dear friend. Accept my wishes for your health, my respectful salutations to your lady, and my love to Katie and the younger chicks. Good bye

Yours sincerely
LC.

Beltrami and Casorati being at this moment in Rome, charge me with their kind remembrances for you and Mrs Wolff

¹⁴⁰ candidates.

¹⁴¹ charakteristische.

25 december¹⁴² 1880

My dear friend

Never in my life have I felt such a charge remorse as at present and last time on amount of my long, scandalously long silence forwards you. And while I was considering myself as become unworthy of your forgiveness, and tortured myself, like Adam outside his lost paradise, your and your wife's kind letter reached me one of which begins with the words: please excuse my long silence...! Then, you have not condemned me for ever, as an incorrigible sinner and a weak and ungrateful friend!

You want to know how and where I spent my holidays. Oh my answer is very easy: I had no holidays at all! Last June I was condemned to hard-labor in our national library (Victor Emanuele) with the charge of dispelling the disorder and giving it a regular organization. My work is lasting still and I do not know when I shall be delivered from its chains

This summer and autumn, nothing of Alps and Switzerland! I was obliged to remain at Rome, always working without rest. My family passed the season at the Bagni di Lucca, a very charming and green place in the Appenins¹⁴³. I payed¹⁴⁴ them a few short visits, but my longest excursion, of twelve days, had another direction in the second half of September. I was in Sicily, on the occasion of a meeting of the Alpine Club at Catania and made the ascent of the Etna but I was not able to go beyond the Casa degli Inglesi [*in italiano*] on amount of a bad headache.

The health of my family and myself is good; only my wife is not yet as completely strong as she was before her great illness of the winter 1879-80. We only hope is in father Time.

Our friends spent a part of the summer in Engadin; I saw them lately in Rome, and we talked very much about you and the old time at Parpan.

I am very pleased with the good news of Mrs. Wolff and Katie, Lilly, Madelein and Harold; only I desire to hear something better of yourself. Please, kiss for me your dear little angels, to whom I sent a German book as a Christmas keepsake and tell your better half that I am very grateful to her for her kind letter and her hearty and indulgent friendship. Besides tell her that my dearest prospect is to travel with my elder daughter to England, next summer, if only fresh hard-labor does not fall upon my poor shoulders. At present I am (not able) unable to fix the time; but it will be in the course of August or September. Then I shall have the pleasure of making the acquaintance of her poultry and of tasting her fresh eggs for my coffee, according to my habit at Parpan, which she so kindly remembers.

And now, adieu! By thousands I wish the happiest things to you, Mrs. Wolff and your children. Give my wife's respectful compliments to your lady and believe me forever and ever

Yours sincerely
L.C.

I am not quite sure of your address: Rawdon?

I addressed the above mentioned book to Leeds

¹⁴² December.

¹⁴³ Cfr. nota 137.

¹⁴⁴ paid.

su carta intestata:

ROMA

R. SCUOLA

DEGLI

INGEGNERI

25 January 1881

My dear friend

With great astonishment and displeasure I received back from the post office the German book (Töchter Album¹⁴⁵) which I had sent you as my Christmas keepsake for your children, my little friends of Parpan. I had addressed it to Leeds, as in that moment I was not sure of having rightly caught your complete address; and I see now that the post official has written on the wrapper “not known”. Then D^r. Gustavus Wolff is not known at the post office of Leeds, is he? [*una nota probabilmente di Mary Taddeucci*¹⁴⁶: unknown e¹⁴⁷ quasi un negativo e due non possono stare insieme]

I fear too that my letter of the 25th December has not reached you. In fact, in a post-scriptum I wrote there “I am not quite sure of your address: Rawdon? I addressed the above mentioned book to Leeds” and nevertheless you have not make yourself known at that post-office.

And if you have not received my letter I am the most unfortunate man in the world, because you and yours must consider me an uncivil rascal. I entreat you! Please deliver me from such a painful doubt.

Just on Christmas day we received by post your (envelope) containing an Alpine blue flower and a Christmas card with the dear (words) “To our dear friends the Cremonas from the Wolves” our best thanks and wishes to you and yours!

I am waiting for news from you, chiefly relating to my letter of the 25th Dec. My kindest regards to Mrs. Wolff and a hundred kisses to your children. Believe me for ever

Yours sincerely
L.C.

83

PS. I am sending again the book to you, with the address “Rawdon near Leeds” like this letter. On the reverse of the wrapper, you will find the previous address.

una nota di Mary Taddeucci: Dear Prof: Will you be kind enough to tell Miss Cremona that I am sincerely obliged to her for the book – also that last week I had no time to go to her but intended to make time this week, but knowing her to be busy sight-seeing will leave it to next-

Your sincerely
Mary I. Taddeucci
Are you always as busy?

¹⁴⁵ Opera per bambini della scrittrice tedesca Thekla Von Gumpert (1810-1897).

¹⁴⁶ Mary Isabella Taddeucci fu insegnante di inglese di Cremona e di sua figlia Elena, Cremona le sottoponeva le bozze delle proprie lettere in inglese perché le correggesse.

¹⁴⁷ è.

su carta intestata:

ROMA
R. SCUOLA
DEGLI
INGEGNERI
25 luglio 1881

My dear friends (Wolffs) the Wolves! [*una nota probabilmente di Mary Taddeucci*: Essendo nome proprio può scegliere o il plurale vero o quello regolare]

Your kind letters of April and May 8th are here, before me, and look as if they would reproach me for my long silence towards you. However I am not so faulty as you may think. In the first place, I have been always and enormously occupied with this horrid Library and other public business. Secondly, at the beginning of this year, I had a great deal to do about the affairs of my daughter's marriage. At that time I said to myself every day: what will happen to my plan of a journey to England with my daughter? What will my dear (Wolffs) Wolves and Hirst say of me, if this plan goes off into [*una nota probabilmente di Mary Taddeucci*: moto vuol to] smoke? The ~~nuptials~~ wedding [*una nota probabilmente di Mary Taddeucci*: nuptials è troppo elevato per il resto dello stile] came; it was not possible to include England in the wedding trip; and I was left here bodily, whilst my (thoughts) heart [*una nota probabilmente di Mary Taddeucci*: o l'uno a l'altro] set out and travelled with the new couple. When they returned to Italy and went to rest in their nest, near Macerata, my body was irresistibly drawn thither. I ~~stood~~ stayed [*una nota probabilmente di Mary Taddeucci*: stood stare in piedi] with them a few days; I saw how happy my daughter was and then I yielded to the necessity of reentering my home.

Here I found an enormous heap of business to be dispatched.

But now I am beginning to breath and the moment is approaching when I may rest (myself) a little.

First of all, I kneel and beseech my dear (Wolffs) Wolves pardon for my long apparent idleness and for my putting off to another year my journey to England. Impossible to do otherwise!

A million of thanks to Mrs. Wolff, to my friend Miss Wolff and to the dear little angels Lilly and Madeline for their kind excellent letters. Another million to Mrs. And Mr. Wolff for their hearty wishes for the happiness of my young couple. I am very very sorry to be forced to put off my visit to Rawdon. I must confine myself to hoping for next year.... If Lilly, Madeline and Harold are inclined to forgive me.

We shall stay at Rome another seven or eight days, and then start for Porto Recanati, a sea-place of the Adriatic, 45 minutes by rail South of Ancona and three hours of postroad East of Macerata. There my family will stay about a month for sea bathing; but, as for me, after having embraced my young couple Perozzi, I shall run to the North, to the Tyrolese Alps, where Beltrami and Villari will be waiting for me, at S^{ta} Maria di Campiglio, near Mont Spinale, Adamello District (Section 40, Route A of Ball's Alpine Guides). I shall spend the month of August on the Alps & afterwards, probably, I shall join my wife and children again in Macerata till the end of September.

The first days of October I must inexorably return to my scholastic business in Rome.

I suppose, you will not leave your charming hills, where one is not obliged to endure such canicular heat as in the continental plains; but, should you happen to make some Alpine excursions, I beg you, please direct your steps towards Tyrol, where you will meet some of your old friends of Parpan. What fun it would be for me to find myself with you, after two long years of separation!

I am not worthy of a speedy answer; but, should you write me before my going to S.M. di Campiglio, please address your letters here, to Rome. As soon as I shall be in Tyrol I will inform you, at last by a postcard.

In the meantime, give my best remembrances to Mrs. Wolff and Miss Katie, my love to your little children; please intercede with them that they should not be angry with me and present them the photographs here included.

Accept the compliments of my family for yourself and better half; and good bye!

Yours very sincerely
L.C.

[novembre 1882]¹⁴⁸

My dear friends

How long it is I have not written to you! Six letters from you both, and with them too the dear lines of your little girls, Katie, Madeline, Lillian, are lying before me, as if reproving me for my silence.

But all this time has been very sorrowful and sad for me, and therefore I rely on your kindness.

You know what a great bereavement I sustained last July. A painful, merciless disease deprived me of my dear poor wife¹⁴⁹, the faithful companion of my life during 28 years, the clever and loving educator of my children. The dreadful blow laid me prostrate; I feel as if my strength and my happiness have vanished for ever. Last month, my wound was irritated by another loss, that of my dear old stepsister¹⁵⁰, who always had been for me as a guardian, and like a kind mother.

In July, a few days after the catastrophe, I took with me my young daughter and my son, and together we ran to the high Alps as far as Zuz where we stopped at the Poult boarding-house, where, a little later, Beltrami, Mrs. Beltrami and Casorati joined us. We remained a month in Zuz, then we spent a week in Pontresina, four days in Livigno, two weeks in Lombardy and the last days of September near Macerata, with my dear elder daughter, Helen, her husband and their baby¹⁵¹. Unfortunately the weather was almost always bad. At last we returned to home and re-entered this house, so full of dear and bad remembrances! My son is busy with his studies, as a pupil of the Engineering; my Itala is now our house-keeper. I long eagerly to get to my scientific work, in the hope of finding therein a wholesome forgetfulness; but until now sad thoughts have preponderated. Only the careful tenderness of my children gives me relief and consolation.

A visit to my English friends is still one of my most eager wishes, but I cannot make any plans for a given time; my future is entirely in the dark.

Good bye, my dear Wolff, my dear Mrs Wolff; do write me in a short time, give my love to Miss Katie and a kiss to Madeline, Lillian, Harold.

Yours very truly
L.C.

85

Gustav Wolff, ~~Mus.~~ Doc. [richiamo a una nota: 2]

(2) In Mus:

Parkfield

Victoria Park

Shipley

Near Bradford

Una nota probabilmente di Mary Taddeucci: Come lo ha messo lei sarebbe un Dottore musicale- 2. Dottore in musica

¹⁴⁸ Scritta, molto probabilmente, nel novembre del 1882, lo si può dedurre dai riferimenti contenuti nella lettera.

¹⁴⁹ La prima moglie, Elisa Ferrari, morì il 16 luglio 1882.

¹⁵⁰ Si tratta di Giovannina Cremona Magenta, morta il 26 ottobre 1882, figlia del padre di Luigi Cremona, Gaudenzio, e della sua prima moglie Caterina Carnevali (cfr. necrologio del 27/10/1882, segnatura 053-12344a in Archivio Cremona <http://www.luigi-cremona.it>).

¹⁵¹ Il primogenito, Ettore Perozzi, nato il 5 febbraio 1882.

8 Oak Lane
Manningham
w Bradford Dec. [1882]¹⁵²

My dear friend Cremona

your long wished for and expected letter has relieved us very much indeed. We were very uneasy on your account and I assure you, not many days passed, without our thinking and speaking of you.

My dear friend, I will not offer you any consolation: I always found such more hurtful than beneficial.

Such a wound like yours must bleed and will bleed. But you have a good constitution and it will heal in time and that this process may be accelerated as much as possible and that you may be spared in future to live only in happiness: this let us wish for you.

During the elapse of the many months, during which we have not heard from you, many times desired to sit down and write to you, asking of you to come to us, far away into a strange and unaccustomed world, thinking, that the newness of impressions might have a good and beneficial effects on your troubled mind; my wife always dissuaded me from so doing. She thought you should remain with your family.

How I wished I could Inv. [...] joined you at Ing [...]! But, of course you are not aware, that also I have gone through a time of great anxiety and trouble.

My wife has also been very ill, so much so, that her condition was, for a since, precarious.

It was a fearful period and I thought often of you. We have been persecuted by the Eumenides of modern civilization, the consequences of bad drainage, which have affected all of us, of course mostly my wife! Health. On the continent people have no right conception of the dangers of these little pestilential¹⁵³ germs, produced in the confined space of English houses and even here, people get only now [conniscent] of the danger, this [...] in.

We have wandered about almost like the wandering "Jews" and are just now about to settle down again here in Manningham for good.

God be thanked the health of my family is improving. The children have grown enormously! Shy Katie is a woman and promises well: she is a clever girl. She has decided talent for drawing and studies very hard. Would you believe that she is naturally taller than my wife!!

As to myself, I am happy to say, that my health has now improved, though my poor nerves will never be very strong and my profession keeps up their sensitiveness. I ardently hope I may, not over long, be in a position to go back to the continent & live more for the engagement of my art.

Now, I am more like a cab-horse working for bread.

Now, my dear Cremona, let me wish you a happy – as merry as it can be under the circumstances – Christmas and a prosperous New Year. May you have plenty of sunshine on your path.

Good bye and believe me always to be

Your very sincere [...]
friend
Gustav Wolff

¹⁵² Si tratta del 1882, anno in cui, a luglio, morì la prima moglie di Cremona.

¹⁵³ pestilential.

108

cartolina postale indirizzata a:

S.T.

Signor Professore Luigi Cremona

Roma

St. Pietro in Vincoli

Bradford April 16. 83

My dear friend

Not having heard from you for so long, we are naturally very anxious to know, what you are doing and whether you are well. There is a prospect of my going to Switzerland this summer for the vacations, I am sorry to say, it will be without my wife, is there any probability of my meeting you? What are your plans for the coming season?

We all send the most friendly greetings

Your affectionate friend
Gustav Wolff.

109

10 July 1883

My dear dearest Wolff,

I don't¹⁵⁴ know whether you will ever pardon me for my long silence. Our Christmas greetings perhaps crossed each other on the way; my duty was, I confess, to give a special answer to Mrs Wolff's to each of your dear children and to miss Wolff; but I felt then so miserable and was so busy that I was not able to write any line.

Your postcard of 16 april¹⁵⁵ came; but then I was ill. You must consider these circumstances as attenuating; but toujours et en tout cas I am a great coupable, qui n'a aucun droit à votre indulgence et à celle de votre dear family.

In this moment, are you in England or in Switzerland ? This ignorance is a deserved position for my laziness.

15 July

The foregoing lines were already written when your letter of the 12th instant¹⁵⁶ reached me. I feel me more and more criminal; you have the right of judging and sentencing me with the greatest severity

I am so much the more ashamed that I learn now you have gone through a very painful time, because Mrs. Wolff has been very ill. Please beg her to pardon me and agree my warm wishes for a normal and happy issue!

In a few days I shall go with my youngest daughter to the seaside (to Portomaurizio, between Genoa and Nice).

On the 1st September we all must be together in Macerata. If you will inform me about your rambling in Switzerland, I will do my very best to run a heat to you, of course for a few days in August. I shall be very happy if I may see you, my dear friend. Casorati and Beltrami will go to Switzerland, but I don't know in what place.

Write me to Portomaurizio where I shall arrive on 24, and advise me about your better half and Miss Wolff and your other angels, to whom I pray please, give my love.

¹⁵⁴ don't.

¹⁵⁵ April.

¹⁵⁶ Cfr. lettera 110.

To-morrow will be a year since my dear wife abandoned us!
Good bye, my dear friend, write me in short time and be indulgent to

Your laziest friend
LC.

110

Bradford 12 July 83

My very dear friend Cremona

What in the world can be the reason that our good friend does never write to us? This question has been asked in our family a very great many times. I have written also a prod many times too, but now, that the vacations have commenced, perhaps there may be just a little spare-time, to send us a line to say, that our friend has not entirely forgotten us!

May I also ask the question, what you are going to do this summer?

Perhaps I may be able to arrange to meet you somewhere in Switzerland.

I am sorry to say, my wife will not accompany me.

She has gone through a very painful time! She has been very ill, but her good constitution has pulled her through and she got better. Now Helen¹⁵⁷! She expects an [...] and we hope that everything may go its normal way, of course we are very anxious, I shall [...] that [...] liberty to move: it will be about the middle of August and feel much inclined to pay a visit of 3 or 4 weeks to Switzerland.

But I will write to you further particulars on receipt of your reply which I hope will not be too late in coming.

Accept our love; we all join in it.

Yours most sincerely
Gustav Wolff

88

111

cartolina postale indirizzata a:

Italy

Signore Professore Luigi Cremona
Portomaurizio

Bradford 13 Aug. [1883]¹⁵⁸

Just only a line to say that my wife was delivered¹⁵⁹ of a little girl this morning and both mother and child are doing well. I shall write in a few days. Will be in Silvaplana towards the end of this month.

Ever yours [...]
Gustav Wolff

¹⁵⁷ Si tratta della moglie di Wolff.

¹⁵⁸ Dal timbro postale si deduce che si tratta dell'anno 1883.

¹⁵⁹ delivered.

112

cartolina postale indirizzata a:

Italia

Signore Professore Luigi Cremona
Macerata

Sutton ^{nr.} Alford
Lincolnshire 21 Sept. [1883]¹⁶⁰

My dearest friend. Only a line to say that I have returned home and found my wife very weak and [...] a [...] here at the sea-shore and that it has done world of good to her and she begins to be all right again
I have received your letter from Macerata [...] in Silvaplana, just on the point of parting. I accompanied the Beltramis to Castasegna, met a friend at Casaccia and Thal. I will quite move in and start trim; I have a load of work at present on my shoulders.
[...] to my dearest friend in which my wife joins
Gustav Wolff

¹⁶⁰ Dal timbro postale si deduce che si tratta dell'anno 1883.

Rosa Helen WOLFF

113

Circa il 20 dicembre 1879

Dear Mrs. Wolff

I should be obliged to kneel down before your splendid likeness and beg your and your husband's pardon for my silence after my return home – if a painful reason were not sufficient to excuse me.

[L'autore inserisce una nota: Qui ripeterei la descrizione della malattia già fatta nella lettera ad Hirst]

.....

It was two or three days that I had received y^r letters of October 26th Your husband's of Sept^r 4th & 22nd which after long wanderings at last reached me in Italy, when my wife fell ill. I am not able to describe the pleasure I ~~proved~~ [nota in riferimento alla correzione, probabilmente della Taddeucci: 1 "to proved" significa soltanto – dare prova.] felt on seeing your likeness and your lines.

D^r Wolff tells me you ~~assume~~ [nota in riferimento alla correzione, probabilmente della Taddeucci: 2 – "assume" prendere sopra di te una responsabilità od affibbiarci¹⁶¹ sic! una cosa non nostra o assumere un titolo] presume that the Photographer ought to be an Italian for his flattery. I rigorously protest against such an insinuation which is offensive to my national selfishness. I find the photo very fine and resembling but it is wanting of that attractive smile which cheered the board of Parpan.

Here included I send you the likeness of my wife, son and daughters; they are far less beautiful than yours ~~ones~~ [nota in riferimento alla correzione, probabilmente della Taddeucci: 3 Dopo i pronomi possessivi non si usa one né ones.]; but unluckily I possess no others. When you have disposable photos of your four angelic children, I shall be very glad to have them.

I regret very much that I was not with you and your husband in your fine tour Weisshorn – Arosa – Frauenkirch – Stresa Pass – Langwies. I have read with great interest what you tell me about your husband's "tremendous" "colossal" tour Engadin – Septimer – Averser Thal - [...] – Andeer – Thusis &c. But I would wish D^r Wolff to give me more details. By which way did you walk from Parpan to Casaccia?

How many days did your husband spend on the whole tour and where did he pass the nights? Would to Heaven that I should be able one day to undertake the same tour and in the companionship of my friends the Wolffs!

Of our common Italian friends I have good news. Beltrami and Casorati live in Pavia, Villari in Bologna; but I saw all three in Rome last month. I do not know with which foreign language Mrs Beltrami is occupied ~~presently~~ [nota in riferimento alla correzione, probabilmente della Taddeucci: 4 – "presently" significa or ora] at present. Of Prof. Delgiudice no information reached me after his leaving Switzerland: but I suppose he is in Pavia too.

Of Prof. Hirst's meeting with you at Cologne I was informed by himself. His health is improved after returning home.

I suppose, you have already heard from M. Hirst of my journey after leaving Parpan – Ragaz – Chur - Ilanz where we found Hirst waiting for us - Dissentis¹⁶² – Andermatt where likewise we found Mr. Villari - Furka¹⁶³ - Rohnegletscher¹⁶⁴ from whence Hirst and Casorati went back to Andermatt, the former directed to the Lake of Lucerna, the latter to Italy – Maienwand, Little Siedlehorn¹⁶⁵ after descending which mountain, Villari and I separated ourselves from Mr. Beltrami, who had to return to the inn of the Rohnegletscher to take his wife and start for Brigue¹⁶⁶ – Grimsel's Hospice – Handeck, where Villari too

¹⁶¹ affibbiarci.

¹⁶² Si tratta probabilmente di Disentis, comune del Cantone dei Grigioni.

¹⁶³ Passo della Furka, valico alpino svizzero.

¹⁶⁴ Si tratta probabilmente del Ghiacciaio del Rodano, in tedesco Rhonegletscher, in Svizzera.

¹⁶⁵ Potrebbe trattarsi del Sidelhorn, montagna delle Alpi Bernesi.

¹⁶⁶ Potrebbe essere Briga, in francese.

returned back to Obergestellen¹⁶⁷ on purpose to rejoin Mr. and Mrs. Beltrami: thence forward I was alone. Guttanen¹⁶⁸ – Meiringen – Grosse Scheideck¹⁶⁹ – Grindelwald, where I met with Mrs and Mr. Rosanes and another Mathematician Prof. Bachmann – Interlaken – Giessbach – Thun – Bern where I paid a visit to Prof. Schläfli – Zurich, where I stopped five days, as a guest of Prof. Geiser, again saw Prof. Frobenius (Mrs. Frobenius too, but not Krummbenium), Prof. Meyer and found other mathematicians, Professor Culmann and Fiedler – Luzern where I rejoined Mr. Hirst – Lake of Luzern, Brunnen, Vitznau where I separated myself from Hirst – Rigi-Kulm – Goldau - [...] – Brunnen – Fluelen¹⁷⁰ - Altorf¹⁷¹ – Amsteg – Wassen – Göschenen – Andermatt – Hospice of St. Gothard – Airolo – Faido – Biasca – Locarno – Arona – Milano – Verderio (Brianza) where at last I re-united myself to my family.

At this moment I receive a fresh letter (Dec. 14) from my excellent friend, dr. Wolff. He is not even now angry with me for my silence!

This ~~raises~~ [nota in riferimento alla correzione, probabilmente della Taddeucci: 5 – “raise” è alzare od innalzare¹⁷²] increases my shame; but nevertheless I hope you will excuse me in consideration of my wife’s dreadful and long illness. A [nota probabilmente della Taddeucci: 6 – Hundred, thousand e million, richiedono davanti a loro, o un numero o l’articolo indefinito.] thousand thanks to you and him for your compliments and wishes for Christmas: I ~~send you back~~ [nota in riferimento alla correzione, probabilmente della Taddeucci: 7. “send back” significa rimandare – “return” ricambiare...] return them a hundred fold. I have read with great pleasure the lively description of your new dwelling, and wish soon to have the opportunity of seeing it.

I would tell you many other things but my English pen is covered with rust in consequence of long rest [nota probabilmente della Taddeucci: molto bello]. good bye therefore dear Mrs. Wolff; please embrace your husband and your children; from me accept my wishes for the ~~impending~~ [nota in riferimento alla correzione, probabilmente della Taddeucci: 8. “impending” si dice piuttosto per una cosa prossima ma spiacevole] approaching new year and my wife and daughters’ respects (they are very eager to make your acquaintance); grant me plenary absolution and believe me

Yours sincerely
LC.

91

PS. Please allow me to send to little Harold a small album with views of Rome.

¹⁶⁷ Potrebbe trattarsi di Obergesteln, ex comune del Canton Vallese.

¹⁶⁸ Si tratta probabilmente di Guttannen, nel Canton Berna.

¹⁶⁹ Si tratta del Grosse Scheidegg, passo alpino del Canton Berna che collega Grindelwald con Meiringen.

¹⁷⁰ Flüelen.

¹⁷¹ Altdorf.

¹⁷² innalzare.

30 Xbre 1881

My dear Mrs. Wolff

When I wrote to Mr. Wolff from Monte Cassiano, last September, I think that I had not yet received your very kind letters of August 28 & 29, which I found on reentering Rome on the 1st October. Here I had to deal with so many affairs of my school, that I was obliged to put them by and defer answering. Perhaps I am not absolutely without fault; perhaps the delay is in some degree owing to my laziness: a vice which unfortunately is increasing with my age (51 years ended on 7th of this month!)

But in spite of my irreversible laziness I rely on the forgiveness of my kind friends, the excellent Wolves, as they know perfectly that my heart is not susceptible of inconstancy

In my last letter I already informed you about my summer rambling; after this, I dare nothing to tell you, which may have any interest for you. The health of my all is good, always excepting my good wife, who passes her time between her bed and the sofa, in a state which is neither illness nor health. My eldest daughter, ever happy, bears her interesting state¹⁷³ very well. We have a splendid winter; a blue sky, a brilliant sun, and an agreeable temperature which allows of open windows in the afternoon. But this is a privilege of Rome; even in other country of Italy winter has its usual accompaniment of fog and snow.

Looking at the future, I rejoice at the prospect of my coming to England next year. Then I shall have the very great pleasure of meeting again with my good friends of Parpan. [*L'autore inserisce una nota*: I will try to exercise myself in speaking English: our common friend Casorati (and his sofa), Beltrami, Villari and our [...] in Switzerland and Tyrol will afford plenty of subjects.

I hope to receive in a short time a long letter from Mr. Wolff with the most copious details about your English life and your children's progress] In the meanwhile I send my best wishes to you, to Mr. Wolff and your children for a happy new year.

Believe me for ever, dear Mrs. Wolff,

Yours sincerely
LC.

92

¹⁷³ Elena partorì il primo figlio, Ettore, il 5 febbraio del 1882.

John WILSON

115

6 october¹⁷⁴ 1884

M. John Wilson
Sec. Sen. Acad.
Edinburgh

Dear Sir

Rientering¹⁷⁵ home, I have received here the medal offered to me by your university as a memento of the Tercentenary Festival, which I had the great honour to attend.

Please tell the Lord Chancellor, the Lord Rector, and the Principal, Sir Al. Grant, I beg them to agree the deepest feelings of thankfulness.

Two copies of my photograph, at two separate autographs, accordingly your request of 16 April, were already delivered at your office by myself before I left Edinburgh.

Yours faithfully
L.C.

93

¹⁷⁴ October.

¹⁷⁵ Re-entering.

Tabella – I riferimenti delle lettere

N°	Mittente	Destinatario	Data	Segnatura file
1	A.H.H. Anglin	L. Cremona	24/04/1886	089-20623
2	M.T. Beimer	L. Cremona	11/04/1886	089-20622
3	L. Cremona	Binney	12/09/1883	052-11898
4	J. Booth	L. Cremona	10/03/1868	051-11271
5	J. Booth	L. Cremona	15/09/1873	051-11272
6	L. Cremona	British Ass. for the Adv. of Science	06/06/1879	052-11907
7	W.S. Burnside	L. Cremona	12/11/1884	056-14196
8	L. Cremona	A. Cayley	29/04/1879	052-11901
9	L. Cremona	A. Cayley	03/05/1879	052-11902
10	L. Cremona	A. Cayley	03/06/1879	052-11900
11	L. Cremona	A. Cayley	10/06/1879	052-11903
12	G. Chrystal	L. Cremona	20/03/1884	051-11265
13	L. Cremona	G. Chrystal	-	052-11869
14	L. Cremona	G. Chrystal	25/03/1884	052-11871
15	G. Chrystal	L. Cremona	31/03/1884	051-11266
16	G. Chrystal	L. Cremona	05/05/1884	051-11267
17	G. Chrystal	L. Cremona	09/05/1884	051-11268
18	G. Chrystal	L. Cremona	02/05/1885	051-11269
19	R.B. Clifton	L. Cremona	18/07/1884	051-11264
20	R. Crawford	L. Cremona	10/11/1884	051-11263
21	A.J.C. Cunningham	L. Cremona	04/04/1883	089-20615
22	L. Cremona	C.L. Dodgson	03/06/1879	052-11909
23	L. Cremona	Dulan	-	052-11899
24	H.T. Eddy	L. Cremona	06/11/1877	053-12482
25	S. Ferguson	L. Cremona	02/05/1884	054-13136
26	L. Cremona	W.T. Gairdner	-	052-11884
27	W.T. Gairdner	L. Cremona	11/01/1893	054-12846
28	W.T. Gairdner	L. Cremona	27/01/1893	054-12847
29	W.T. Gairdner	L. Cremona	21/09/1893	054-12848
30	W.T. Gairdner	L. Cremona	27/02/1894	054-12849
31	W.T. Gairdner	L. Cremona	14/03/1894	054-12850
32	W.T. Gairdner	L. Cremona	20/03/1894	054-12851
33	W.T. Gairdner	L. Cremona	25/03/1894	054-12852
34	W.T. Gairdner	L. Cremona	17/03/1894	054-12854
35	W.T. Gairdner	L. Cremona	01/10/1885	054-12856
36	W.T. Gairdner	L. Cremona	06/11/1885	054-12857
37	L. Cremona	J. Glaisher	29/04/1879	052-11906
38	L. Cremona	J. Glaisher	24/05/1879	052-11905
39	A.B. Griffiths	L. Cremona	28/04/1900	054-12951
40	A.B. Griffiths	L. Cremona	28/04/1900	054-12950
41	L. Cremona	T. Hudson Beare	12/11/1886	052-11873
42	L. Cremona	T. Hudson Beare	21/10/1888	052-11874
43	W. Huggins	L. Cremona	19/11/1885	054-13186
44	M. Jenkins	L. Cremona	03/12/1884	055-13582
45	L. Cremona	H. Lamb	-	052-11948
46	L. Cremona	H. Lamb	10/04/1880	052-11945
47	C. Leudesdorf	L. Cremona	19/05/1885	089-20619
48	L. Cremona	C. Leudesdorf	28/07/1884	052-11851

N°	Mittente	Destinatario	Data	Segnatura file
49	L. Cremona	H.A. Newton	21/02/1880	052-11932
50	B. Price	L. Cremona	26/05/1884	055-13837
51	L. Cremona	B. Price	16/06/1884	052-11852
52	E.L. Richards	L. Cremona	09/05/1882	056-14151
53	E.L. Richards	L. Cremona	11/05/1882	056-14152
54	R.G. Robson	L. Cremona	25/11/1884	056-14147
55	L. Cremona	Royal Society of London	31/05/1879	052-11904
56	J.W. Russell	L. Cremona	26/02/1894	056-14148
57	J.W. Russell	L. Cremona	14/03/1894	056-14149
58	J.W. Russell	L. Cremona	24/03/1894	056-14150
59	L. Cremona	G. Salmon	03/1884	052-11868
60	L. Cremona	G. Salmon	26/03/1884	052-11870
61	G. Salmon	L. Cremona	07/01/1885	056-14174
62	H.J.S. Smith	L. Cremona	30/12/1876	056-14175
63	H.J.S. Smith	L. Cremona	26/01/1877	056-14176
64	H.J.S. Smith	L. Cremona	16/03/1877	056-14177
65	L. Cremona	H.J.S. Smith	06/05/1879	051-11833
66	H.J.S. Smith	L. Cremona	24/06/1879	056-14178
67	L. Cremona	H.J.S. Smith	05/07/1879	051-11834
68	R.H. Smith	L. Cremona	21/12?/1896	056-14180
69	R.H. Smith	L. Cremona	07/01/1897	056-14181
70	L. Cremona	Smithsonian Institution	1881	052-11908
71	W. Spottiswoode	L. Cremona	14/09/1869	056-14183
72	W. Spottiswoode	L. Cremona	20/09/1869	056-14184
73	W. Spottiswoode	L. Cremona	04/02/1870	056-14185
74	W. Spottiswoode	L. Cremona	12/08/1870	056-14186
75	W. Spottiswoode	L. Cremona	26/11/1877	056-14188
76	W. Spottiswoode	L. Cremona	24/02/1878	056-14189
77	L. Cremona	W. Spottiswoode	28/05/1879	052-11941
78	W. Spottiswoode	L. Cremona	05/06/1879	056-14190
79	L. Cremona	W. Spottiswoode	17/06/1879	052-11942
80	W. Spottiswoode	L. Cremona	06/10/1879	056-14191
81	L. Cremona	W. Spottiswoode	10/1879	052-11944
82	W. Spottiswoode	L. Cremona	27/03/1883	056-14192
83	W. Spottiswoode	L. Cremona	02/05/1883	056-14193
84	W. Spottiswoode	L. Cremona	22/05/1883	056-14194
85	L. Cremona	C.M. Struthers	18/07/1883	052-11850
86	C.M. Struthers	L. Cremona	15/03/1885	054-13191
87	J.J. Sylvester	L. Cremona	30/01/1882	056-14182
88	M.I. Taddeucci	L. Cremona	-	052-11908a
89	L. Cremona	P.G. Tait	16/03/1883	051-11832
90	L. Cremona	P.G. Tait	1884	052-11858
91	L. Cremona	P.G. Tait	23/03/1884	052-11859
92	L. Cremona	P.G. Tait	14/04/1884	052-11857
93	P.G. Tait	L. Cremona	11/07/1884	056-14397
94	W. Thomson (Lord Kelvin)	L. Cremona	-	056-14396
95	L. Cremona	R. Tucker	29/06/1885	054-13153
96	L. Cremona	G. Tyson Wolff	07/05/1879	052-11910
97	L. Cremona	G. Tyson Wolff	18/05/1879	052-11911
98	L. Cremona	G. Tyson Wolff	15/06/1879	052-11912

N°	Mittente	Destinatario	Data	Segnatura file
99	L. Cremona	G. Tyson Wolff	23/07/1879	052-11913
100	L. Cremona	G. Tyson Wolff	1880	052-11915
101	L. Cremona	G. Tyson Wolff	26/04/1880	052-11916
102	L. Cremona	G. Tyson Wolff	06/06/1880	052-11919
103	L. Cremona	G. Tyson Wolff	25/12/1880	052-11917
104	L. Cremona	G. Tyson Wolff	25/01/1881	052-11918
105	L. Cremona	G. Tyson Wolff	25/07/1881	052-11920
106	L. Cremona	G. Tyson Wolff	11/1882	052-11922
107	G. Tyson Wolff	L. Cremona	12/1882	056-14517
108	G. Tyson Wolff	L. Cremona	16/04/1883	056-14518
109	L. Cremona	G. Tyson Wolff	10/07/1883	051-11262
110	G. Tyson Wolff	L. Cremona	12/07/1883	056-14516
111	G. Tyson Wolff	L. Cremona	13/08/1883	056-14520
112	G. Tyson Wolff	L. Cremona	21/09/1883	056-14519
113	L. Cremona	R.H. Wolff	20/12/1879	052-11914
114	L. Cremona	R.H. Wolff	30/12/1881	052-11921
115	L. Cremona	J. Wilson	06/10/1884	052-11872

Biografie dei corrispondenti

Nome	Lettere	Link/breve biografia
Anglin Arthur Henry Hallam	1	(Cork IE 1850 – 1934). Docente di matematica presso lo University College di Cork e membro della Royal Society of Edinburgh.
Beimer M.T.	2	Non identificato
Binney	3	Non identificata.
Booth James	4, 5	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Booth.html
British Association for the Advancement of Science	6	http://www.britishtscienceassociation.org/
Burnside William Snow	7	(1839-1920). Matematico, docente presso il Trinity College di Dublino, allievo di George Salmon. Autore, insieme ad Arthur William Panton di “The Theory of Equations” nel 1881.
Cayley Arthur	8-11	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Cayley.html
Chrystal George	12-18	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Chrystal.html
Clifton Robert Bellamy	19	(1836 – 1860). Professore di Filosofia Sperimentale presso la Oxford University. Membro della Royal Society e della Royal Astronomical Society, fu presidente della Physical Society of London.
Crawford Robert	20	http://www.dia.ie/architects/view/1297/CRAWFORD-ROBERT
Cunningham Allan Joseph Champneys	21	(Delhi IN 1842 – Londra UK 1928). Matematico, militare, docente.
Dodgson Charles Lutwidge (Lewis Carroll)	22	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Dodgson.html
Dulan	23	Non identificato.
Eddy Henry Turner	24	https://en.wikisource.org/wiki/The_Encyclopedia_Americana_%281920%29/Eddy,_Henry_Turner
Ferguson Samuel	25	http://www.irelandseye.com/irish/people/famous/sfergson.shtm
Gairdner William Tennant	26-36	http://www.universitystory.gla.ac.uk/biography/?id=WH2281&type=P
Glaisher James Whitbread Lee	37, 38	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Glaisher.html
Griffiths Arthur Bower	39, 40	(1859-1912). Docente di Chimica alla Technical School di Manchester. Membro della Société chimique de Paris dal 1883.
Hudson Beare Thomas	41, 42	(Adelaide AU 1859 – 1940). Professore di Ingegneria presso lo University College of London e, successivamente, presso la Edinburgh University.
Huggins William	43	(1824-1910). Astronomo inglese, fu un membro della Royal Society e suo presidente dal 1900 al 1905. Vinse due Gold Medal of the Royal Astronomical Society.
Jenkins Morgan	44	Non identificato.
Lamb Horace	45, 46	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Lamb.html
Leudesdorf Charles	47, 48	(1853 – 1924). Matematico, tradusse in inglese gli <i>Elementi di Geometria Proiettiva</i> di Luigi Cremona (1885).
Newton Hubert Anson	49	(Sherburne US 1830 – New Haven US 1896) Professore di Matematica presso la Yale University. Astronomo. Membro della Royal Astronomical Society of London e presidente della American Association for the Advancement of Science.
Price Bartholomew	50, 51	(Coln St. Dennis UK 1818 – 1898). Sedleian Professor of Natural Philosophy presso la Oxford University.
Richards Eugene Lamb	52, 53	(New York US 1838 – Beach Haven US 1912). Assistente dal 1871 al 1891 e poi Professore di Matematica presso la Yale University (US).
Robson R.G.	54	Non identificato.
Royal Society of London	55	https://royalsociety.org/
Russell John Wellesley	56-58	(1851-1922). Docente di Matematica presso i college Balliol, Trinity e Saint John dell’Università di Oxford.

Nome	Lettere	Link/breve biografia
Salmon George	59-61	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Salmon.html
Smith Henry John Stephen	62-67	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Smith.html
Smith Robert Henry	68, 69	(Edinburgh UK 1851 – Londra UK 1916). Docente di Ingegneria civile e meccanica presso Il Mason Science College di Birmingham.
Smithsonian Institution	70	http://www.si.edu/About/History
Spottiswoode William	71-84	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Spottiswoode.html
Struthers Christina Margaret (Alexander)	85, 86	(Wooler UK 1833 – 1907).
Sylvester James Joseph	87	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Sylvester.html
Taddeucci Mary Isabella	88	Insegnante di inglese di Luigi Cremona. Non identificata
Tait Peter Guthrie	89-93	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Tait.html
Thomson William (Lord Kelvin)	94	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Thomson.html
Tucker Robert	95	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Tucker_Robert.html
Tyson-Wolff Gustav	96-112	(1840 – 1907). Compositore tedesco.
Wolff Rosa Helen (Ashton)	113, 114	(1846 - ?). Moglie di Gustav Tyson-Wolff.
Wilson John	115	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Wilson_John_2.html

Indice dei nomi citati nelle lettere

Nome	Lettere	Link/ breve biografia
Atkinson Robert	25	(1839-1908). Docente e filologo.
Bachmann Paul Gustav Heinrich	114	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Bachmann.html
Ball Robert Stawell	16	http://www-history.mcs.st-and.ac.uk/Biographies/Ball_Robert.html
Baravelli Giulio Cesare	68	(1859-1918). Membro della Società degli Ingegneri di Roma.
Battaglini Giuseppe	22	http://www.treccani.it/enciclopedia/giuseppe-battaglini_(Dizionario-Biografico)/
Beltrami Eugenio	9, 45, 46, 100, 102, 103, 106, 107, 110, 113, 114, 115	http://www.treccani.it/enciclopedia/eugenio-beltrami/
Beltrami Pedrocchi Amalia	100, 107, 113, 114	Moglie di Eugenio Beltrami.
Bierens de Haan David	15	(Amsterdam 1822 – Leiden 1895). Matematico olandese.
Blaserna Pietro	65, 98	http://www.treccani.it/enciclopedia/pietro-blaserna/
Bodio Luigi	65	http://notes9.senato.it/web/senregno.nsf/5cf68b34c7af786ac12571140059a4cb/eef2e2a65531f9e24125646f00590d10?OpenDocument
Bossut Louis	41	Non identificato.
Brioschi Francesco	1, 75, 76	http://www.treccani.it/enciclopedia/ricerca/francesco-brioschi/
Buchanan John Young	17	(1844 – 1925). Chimico scozzese, partecipò alla missione oceanografica “Challenger”.
Calvin Jehan (Calvino)	32	(Noyon FR 1509 – Ginevra CH 1564).
Casorati Felice	101, 102, 103, 107, 110, 114, 115	http://www.treccani.it/enciclopedia/felice-casorati_res-3aa57111-87ea-11dc-8e9d-0016357eee51_(Dizionario-Biografico)/
Catellani Carlo	70	http://www.treccani.it/enciclopedia/carlo-castellani_(Dizionario-Biografico)/
Cayley Arthur	15, 37, 38, 67, 77, 87	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Cayley.html
Cesalpino Andrea	32	http://www.treccani.it/enciclopedia/andrea-cesalpino/
Chasles Michel	56, 62	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Chasles.html
Chelini Domenico	9, 10, 11, 66, 67	http://www.treccani.it/enciclopedia/domenico-chelini/
Chrystal George	59, 60	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Chrystal.html
Clifford William Kingdon	16, 42	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Clifford.html
Cotta	51	Non identificato.
Coutts Trotter Thomas	38	(1837-1887). Docente di Fisica presso il Trinity College di Cambridge.
Crelle August Leopold	66	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Crelle.html
Cremona Cozzolino Itala	3, 107	(Bologna 1865 – Genova 1939). Terza figlia di Luigi Cremona ed Elisa Ferrari.
Cremona Magenta Giovannina	107	(? – 1882). Figlia del padre di Luigi Cremona, Gaudenzio Cremona, e della sua prima moglie Caterina Carnevali.
Cremona Perozzi Elena	88, 106, 107	(Pavia 1856 - ?). Primogenita di Luigi Cremona ed Elisa Ferrari.
Crum Brown Alexander	16	(Edimburgo UK 1838-1922). Chimico.
Culmann Karl	114	http://www.treccani.it/enciclopedia/karl-culmann
Curtze Maximilian	41	http://www.treccani.it/enciclopedia/maximilian-curtze/
Debus Heinrich	77	(Wolfhagen DE 1824 – Kassel DE 1915). Chimico tedesco. Insegnò Chimica presso il Royal Naval College di Greenwich dal 1873. Fu eletto Membro della Royal Society nel 1861.

Nome	Lettere	Link/ breve biografia
Del Giudice Pasquale	114	http://notes9.senato.it/web/senregno.nsf/4c1a0e70e29a1d74c12571140059a394/7f5c5ec6e495cdc54125646f005ae2a1?OpenDocument
Frischauf Johannes	16	(Vienna AT 1837 - Graz AT 1924). Matematico, fisico e astronomo.
Frobenius Ferdinand Georg	114	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Frobenius.html
Fucci Giuseppe	68	Ingegnere civile.
Garrett John W.	87	(US 1820 - 1884). Presidente della Baltimore & Ohio Railroad.
Gauthier Villars Jean Albert	50, 51	(Lons-le-Saunier FR 1828 – Parigi FR 1898). Ingegnere ed editore francese.
Geiser Karl Friedrich	114	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Geiser.html
Glaisher James Whitbread Lee	8, 11	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Glaisher.html
Grant Sir Alexander	115	(New York US 1826 – 1884). “Principal” della University of Edinburgh dal 1868 al 1884.
Harvey William	32	http://www.treccani.it/enciclopedia/william-harvey/
Hermite Charles	12, 13, 14, 15, 16, 62	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Hermite.html
Hirst Thomas Archer	17, 22, 37, 63, 71, 72, 73, 74, 75, 76, 78, 81, 82, 83, 84, 95, 106, 114	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Hirst.html
Hoepli Ulric	67, 70	http://www.treccani.it/enciclopedia/ulrico-hoepli/
Jacobi Carl Gustav Jacob	63	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Jacobi.html
Jung Giuseppe	97, 98	http://www.treccani.it/enciclopedia/giuseppe-jung_%28Enciclopedia-Italiana%29/
Knox Smith Jesse	2	Nipote di Robert Angus Smth.
Kronecker Leopold	65	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Kronecker.html
Leudesdorf Charles	50, 51	(1853–1924). Matematico, tradusse in inglese gli <i>Elementi di Geometria Proiettiva</i> di Luigi Cremona (1885).
Maclaren	15	Non identificato.
Magnaghi Giovan Battista	17	http://www.treccani.it/enciclopedia/giovan-battista-magnaghi_(Dizionario-Biografico)/
Maxwell James Clerk	37	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Maxwell.html
Mengarini Guglielmo	68	http://notes9.senato.it/web/senregno.nsf/2a9c00aad2bca710c125711400599e36/10d820b60067f0314125646f005d6a04?OpenDocument
Meyer Friedrich Wilhelm Franz	114	http://www-groups.dcs.st-and.ac.uk/history/Biographies/Meyer.html
Moline Cayley Susan	9, 11, 37	(1831-1923). Moglie di Arthur Cayley.
Moulton John Fletcher	81	(1844-1921). Matematico e giudice inglese.
Murray John	15, 17	(Cobourg CA 1841-1914 UK). Oceanografo e biologo marino. Prese parte alla missione oceanografica “Challenger”.
Newton Hubert Anson	52	(Sherburne US 1830 – New Haven US 1896) Professore di Matematica presso la Yale University. Astronomo. Membro della Royal Astronomical Society of London e presidente della American Association for the Advancement of Science.
Niccolò V	34	http://www.treccani.it/enciclopedia/niccolo-v_(Enciclopedia-dei-Papi)/
Ohrtmann Karl	37	(1839-1885). Insegnante di Matematica tedesco.
Pagliani Stefano	93	(Genola 1856 - ?). Professore di Fisica tecnologica presso la Regia Scuola di Ingegneria di Palermo.

Nome	Lettere	Link/ breve biografia
Pearson Karl	42	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Pearson.html
Perozzi Adolfo	3, 105	(1852-1894). Marito di Elena, primogenita di Luigi Cremona.
Pisati Giuseppe	19	http://www.treccani.it/enciclopedia/giuseppe-pisati_(Enciclopedia-Italiana)/
Price Bartholomew	48	(1818–1898). Matematico inglese, fu docente di Matematica al Pembroke College di Oxford dal 1845.
Pucci Enrico	19	http://www.treccani.it/enciclopedia/enrico-pucci/
Rebeschini Cristiano	1	(?1831-1901). Tipografo milanese.
Respighi Lorenzo	65	http://www.treccani.it/enciclopedia/lorenzo-respighi/
Reye Karl Theodor	16, 65	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Reye.html
Riemann Georg Friederich Bernhard	79	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Riemann.html
Rosanes Jakob	114	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Rosanes.html
Rawitscher Rosanes Emilie	114	Moglie di Jakob Rosanes.
Rossetti Francesco	81	http://www.treccani.it/enciclopedia/francesco-rossetti/
Salmon George	14, 15	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Salmon.html
Schiaparelli Giovanni Virgilio	81	http://www.treccani.it/enciclopedia/giovanni-virginio-schiaparelli/
Schläfli Ludwig	67, 114	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Schlaefli.html
Servetus	32	http://www.treccani.it/enciclopedia/michele-serveto/
Smith Henry John Stephen	37, 71, 72, 77, 82	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Smith.html
Smith Robert Angus	2	(Glasgow UK 1817 – 1884). Chimico noto per i suoi studi sull'inquinamento dell'aria, fu il primo a studiare le piogge acide.
Sommeiller Germano	93	http://www.treccani.it/enciclopedia/germain-sommeiller/
Spottiswoode Mrs.	73, 75, 76, 77, 78, 79, 81, 82, 83, 84	Moglie di William Spottiswoode.
Steiner Jakob	16	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Steiner.html
Stern Moritz Abraham	66	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Stern.html
Stokes Sir George Gabriel	15	http://www.treccani.it/enciclopedia/sir-george-gabriel-stokes/
Struthers John	85	(1823-1899). Anatomista, professore e chirurgo scozzese.
Sylvester James Joseph	15, 50, 51	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Sylvester.html
Taddeucci Mary Isabella	105	Insegnante di inglese di Luigi Cremona. Non identificata.
Tait Peter Guthrie	13, 14, 15, 16, 17	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Tait.html
Thomson William (Lord Kelvin)	15, 29	http://www-gap.dcs.st-and.ac.uk/~history/Biographies/Thomson.html
Townsend Richard	7	(1821–1884). Matematico Irlandese. Fu membro della Royal Society of London for Improving Natural Knowledge.
Tyndall John	77	http://www.treccani.it/enciclopedia/john-tyndall/
Tyson-Wolff Gustav	114, 115	(1840 – 1907). Compositore tedesco.
Valeri	87	Non identificato.
Villari Emilio	106, 114, 115	http://www.treccani.it/enciclopedia/emilio-villari/
Wolff Rosa Helen (Ashton)	99, 100, 101, 102, 103, 104, 108, 110, 111, 112, 113	(1846 - ?). Moglie di Gustav Tyson-Wolff.
Zanetti Francesco	4	Tipografo.

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P. Caccia (a cura di), *Editori a Milano (1900-1945)*, FrancoAngeli, Milano, 2013.

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R. Flood, A. Rice, R. Wilson, *Mathematics in Victorian Britain*, Oxford University Press, 2011.

W.B. Fye, “Andrea Cesalpino”, *Clinical Cardiology*, vol. 19, Wiley Periodicals, 1996.

R. Fox, G. Gooday, *Physics in Oxford, 1839-1939, Laboratories, Learning and College Life*, Oxford University Press, 2005.

G.A. Gibson, [*Life of Sir William Tennant Gairdner*](#), J. Maclehose & Son, Glasgow, 1912.

A. Guagnini, “[John Fletcher Moulton and Guglielmo Marconi: bridging Science, Law and Industry](#)”, *Notes & Records of The Royal Society*, 2009, 63, pp. 355-363.

C.G. Knott, *Life and Scientific Work of Peter Guthrie Tait*, University Press, Cambridge, 1911.

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