

at the Regent, which was a solace to all. We are healthfully situated here. Did I tell you that we spent a pleasant afternoon with Mr Webster, the Basque scholar, in his home among the hills at Sarre, nine miles off? He is growing very old and feeble, but is full of interests. It was a great pleasure to make Count Russell's acquaintance. He has sent his charming little book, full of genius, called *Pyrenaica* to Eva (it is in French). But at my age, I don't take kindly to the thoughts of a sleeping-bag in a big hole in a rock some 10,000 feet high, with the chance of sluices of rain and tempests and a most disagreeable descent afterwards. "Peace is of the valley"; Valkyries were not peaceful ladies, and are not at all to my fancy. We drove yesterday to Fontarabia; two hours there, two hours at the place, and two back. But I sat still and left Eva and a lady friend, to whom I gave a lift, to do the sight-seeing (which I *had* seen forty and more years ago). Lucy wants me to write recollections of her mother to put into her mother's book of recollections which you probably know, or know of. She never liked talking about it, but I had once a good read at it. It is all very nice and interesting and well deserves being typed, which is being done by Lucy's niece. The only thing I could do, would be to give my own recollections of the family, my father, mother, brothers and sisters, *as a whole*; and I shall try, but fear making inaccurate and one-sided remarks, also I should be deficient in dates. The family is a curious one, from consisting of very heterogeneous elements; my father and his three brothers and three sisters, Theodore, Hubert, Howard, Mrs Schim., Aunts Adèle and Sophia, having totally different temperaments and characters, and each very decided in its way.

Ever affectionately, FRANCIS GALTON.

HÔTEL TERMINUS, ST JEAN DE LUZ, BASSES PYRÉNÉES, FRANCE. *January 19, 1906.*

MY DEAR EDWARD, I was glad to hear from you, though letter-writing is more than I can expect now, in this miserable time for you. The yawning gap left by the loss of a mother, and all the interests connected with her, and the extremely painful business of going through her things, which is a repetition of what you went through a year ago on dear Emma's account, are grievous to think of. Your Mother was very thoughtful and you are very good, to suggest my having some memento of her, but I really do not know what to ask for, for I want nothing. The many things I had on Emma's death fulfil the present purpose of family memorials. Don't let any Darwin or Wedgwood things, or anything referring to my Grandfather, or even to Mrs Schim., be *lost*. They are all family mementoes, but I cannot say either that any of them would be suitably bestowed on me, or that I should really care to have them. There is so little spare room in my house and I am perforce so large a part of the year away from home. Any *trifle*, such as a bit of tape, if characteristic, would quite serve my purposes.

We are staying on here, which suits us, and Biarritz seems about to be over-crowded with Royalty and their suites, and therefore not attractive to return to. When tired of this I shall probably try San Sebastian for a bit, also Sarre, a thoroughly Basque village where there is a clean Inn and where Mr Webster, the Basque scholar, lives with his family—but the present address holds good for a while.

I shall be curious to learn in time the fate of No. 5, Bertie Terrace and other particulars resulting from the great change. I was very glad on all accounts that you were both of you able to see so much of Erasmus during the sad week. For my own part, I feel that almost all interest in Leamington is gone; it lay so predominantly in No. 5, Bertie Terrace. I had not only the personal affection to it, but some of the mere house-affection, like a cat's, also.

What a strange political change! Everything seems going topsy-turvy in England. We shall soon see some results, and can only hope they will not be dangerously bad.

Best love to M. L. Also please to Erasmus when you see him next.

Ever affectionately, FRANCIS GALTON.

HÔTEL TERMINUS, ST JEAN DE LUZ, BASSES PYRÉNÉES, FRANCE. *January 22, 1906.*

(We stay on here till I write to the contrary.)

DEAREST MILLY, My letter will have crossed yours, and explained why I had delayed writing. Erasmus tells me by letter this morning that Edward and M. L. propose going soon to the Mediterranean for a complete change and rest. It must have been a most sad and trying work to look over all the old papers and things, and to arrange about them, a repetition with additions of what he went through a year and a half ago. The sad event has brought them and

Erasmus still closer together. He, Erasmus, suggests that I and he should interchange periodical letters, say once fortnightly, to which I cordially agree. There are great merits in this place and I like it. We spent a long day a little since at Fuentarabia in Spain close by, but it is rather too cold and the days are still rather short for excursions. Your letter reached me yesterday as wet as if it had come out of Guy's trousers' pocket after his "humane" feat by St Malo. The story was that Seabrooke* bicycled to Biarritz, being invited to dine there by her friends. On returning, the weather there was at first rather blowy but dry. Here it was a gale with squalls of rain and we were anxious about her return. She ran into the gale about half way, and had to walk with her machine four or five miles, arriving here late with your letter in her pocket and every stitch of clothing on her wet through. A dose of hot tea and brandy, followed by dinner and early bed, has put her quite right. It is remarkable how popular she becomes wherever she goes. There was, and is, a Russian Archduke at the Hôtel d'Angleterre at Biarritz with his suite, and there are other Russians also. On *their* Xmas Day (while we were still there) a big servants' dinner was given and according to Russian custom they chose a queen for the evening, and that queen was Seabrooke. She was crowned with and wore a handsome *dish-cover*.

I feel just like you about Leamington. All special interest in the place is gone for me, which was for a long time so close and grateful. I greatly miss Bessy's weekly letters, too. In fact it is a big loss to me, that time cannot now go far towards supplying. I am glad to know that your affectionate heart feels it deeply too. What anxiety you must have had about Guy's very sharp attack and fever. Is not the present form of *bad* chickenpox a special type recently imported from Germany? I fancy that I have heard so. Free Trade in microbes and diseases! Hurrah for Free Trade! We get good things however as well as bad through Free Trade. This cataclysm in the political world is ludicrous as well as terrible. Most likely it will be a refresher and turn to good in the end, but there are many wrong ways to one right one, according to Bunyan's *Pilgrim's Progress*. Eva went to the Basque Cathedral last Sunday—most imposing—then a long, long procession through streets sparsely strewn with sweet-smelling rushes, which with Basque orderliness were all swept away that same evening.

Loves to Amy and all, ever affectionately, FRANCIS GALTON.

Address for next two or three days: Hôtel de la Rhune, Ascain, Basses Pyrénées, France.
February 1, 1906.

MY DEAR WELDON, I owe you thanks for your kind sympathy and was indeed about to write when your letter to Miss Biggs arrived yesterday. As yet we have not noticed any arbutus but shall be to-day in less cultivated districts for we go to the above picturesque Basque village for a week certain and will take care to look out and to ask. Probably we shall go on four miles to Sarre where Mr Webster, the Basque authority, lives with his well-informed wife and daughter, and I will put them on the arbutus inquiry. We should have gone there instead of to Ascain, but some unexpected bother arose about the contemplated rooms. I should be grateful for a few lines about the horse-colour question and the Royal Society discussion, where I have heard from Pearson that Bateson drew a red herring across the track of the discussion. He also sent me a slasher in the *Chronicle* about X. and tuberculosis, well-deserved. X., with his fluent pen and Oriental character, strikes me as a precarious combination, not to be depended on over-much. I heard from Schuster a few days ago but having been much preoccupied his letter is still unanswered. How does the *book*, the magnum opus, get on? You can hardly believe how much I thirst for its appearance, for your zoological facts are just those I am most deficient in.

We have had a quiet pleasant three weeks here, at St Jean de Luz, and feel the Spring in the air and the good time coming. The Royal Lover whirled through the town in his motor, to and from Biarritz, but I did not see him. One ought to "cast" a future (like a horoscope) for the prospective children. A queer medley of good and bad breed will run in their veins.

Ascain, and the inn there, where we go to-day, is where Pierre Loti wrote *Ramuntcho*. His ship was somewhere near and he got leave to stay on shore. The Bay is now wonderfully calm, such a contrast to when we arrived, when the waves ran wonderfully high and a newly wrecked ship lay on the shore. The sea reminds me of a gorged cannibal, sleeping with his stomach full. Ever very sincerely, FRANCIS GALTON.

* Evelyne Biggs' maid.

Life and Letters of Francis Galton

[In Evelyne Biggs' handwriting.]

I should like to read the *Fogazzaro*, also the book on Naples, but I find as a rule I can't read Serao's writings. Just begun *Pêcheur d'Islande*, it is very charming in spite of being French!

This place is most paintable, the Basque buildings are delightfully irregular and no street is at right angles, or rather the houses in it aren't and that makes it so interesting. I think we've got the tunnel murderer in this hotel! Lucky we are just moving! E. B.

Address 42, Rutland Gate, "please forward." February 3, 1906.

DEAR SCHUSTER, At length, after a scarcely pardonable delay, I have had a good go at your paper. (1) Take great pains to describe the Subjects' doings in terse and forcible language. It is a most difficult task, so it would be well to be in touch with some classical or literary friends to criticise helpfully. An epitaph is a work of art; the late Lord Houghton was frequently appealed to to compose them for public characters, and these are like epitaphs. I have pencilled suggestions of my own.

(2) About the appendix to each family, such as that to the Freres, which please look at for explanation, it will of course be printed in smaller type. I *think* that the *Subjects*, as (fa fa + bro sis), had better be the bracketed entries, and their brothers and sisters or sons and daughters be separate, thus:

(fa fa + bro sis) 2 bros, 3 sis || (subjects + bro sis) 3 bros, 0 sis || etc.

Think this over and do what *you* then think best, for it will be *your* book.

(3) In the Butler family you have tried bro_a, bro_b, etc. instead of bro₁, bro₂, etc. I like the numerals best. It would hardly do to *combine* the notations as bro_c son₃, because, however well it might look in one pedigree, the term bro_c might appear as bro₃ in another, as applied to the same person, which would puzzle. You have taken great pains with these families.

I have been twice in correspondence with Murray, first in regard to whether the book was to be one of the University of London Series, he replying that he understood *not*. I referred this and him to Hartog, to whom I also wrote, fearing to make some technical blunder; Hartog suggested at least the University arms. The second was yesterday in reply to half a dozen sample covers of diffused hues, all printed alike and *with* the arms. I suggested the addition of the words "modern science," which no doubt he will put in if he gets my answer in time. Otherwise there would be nothing on the cover of the book (though there is in the title-page) to distinguish it from forthcoming volumes of the same kind. The cover looks uncommonly well and suitable to attract attention favourably, as it lies on a table.

I have just received an offprint of a German translation of all my Eugenics papers, inserted in that excellent periodical *Archiv für Rassen- und Gesellschafts-Biologie* of which I know Professor Pearson has a high opinion. I have not had time yet to look at it but am sure it will be done well, as the co-editor who translated it writes in excellent English.

We are in a funny and very comfortable Basque Inn, in a village, Ascain, four or five miles from St Jean de Luz. It depends upon procurable rooms whether or no we move hence to Sarre, another Basque village, or possibly even go a little way into Spain. So you had better write to 42, Rutland Gate, "to be forwarded," if you have occasion to do so before you hear from me again. Very faithfully yours, FRANCIS GALTON.

HÔTEL DE LA RHUNE, ASCAIN, BASSES PYRÉNÉES, FRANCE. February 8, 1906.

DEAREST MILLY, Your last letter, that you wrote of on a post-card, has miscarried. We get all letters forwarded from St Jean de Luz, but yours has not been among them. I am so sorry. We like this place, but having been house-bound by bad weather I have as yet seen little of the neighbourhood. There is a pet here that even you have no experience of, viz. a wild boar, 10 months old, as high as my knee. He is kept mostly shut up, but was let out yesterday for a run. It was the funniest sight conceivable to see his twists and turns and gallops about the field and garden. His tusks are fully 3 inches long, not sharp but formidable looking, and he shakes his head continually as though ripping up at something. He will be dangerous soon. The landlord picked him up quite young on the hills. There are no *events* here to tell you of. As regards personal matters, I packed off my paper to-day on the "Measurement of Resemblance" to the typist, who is to send one copy to Karl Pearson for his criticism, which

I await with no ordinary anxiety. Another is that I have received a German translation of my Eugenics papers, printed in a first class periodical, which reads and looks extremely well. My "Resemblance" dodge *may* turn out very useful in inquiries bearing on Eugenics, for it measures among other things family likenesses, racial likenesses, etc., and is especially adapted to measure those between composite photographs, respectively representing the features of different races. But it has to be criticised, well tried, and then developed. You will have received one picture card from Eva. We are collecting them by degrees, but are far from the parts you are likely to go to. Argelès sounds promising. So Edward and M. L. go on March 1 for a five weeks' cruise. It is sad for Guy not to be with them. But it is rather a blowy and cold time of the year, for Constantinople especially. Still they are sure to have many delightful days and to see delightful places. I wonder if we shall by chance return *via* the Simplon tunnel when the time comes. I know it is open, but do not know when trains will run. It is however a good deal out of our way. The King of Spain has driven frequently in his motor through St Jean de Luz, waving his handkerchief and looking very happy, as a friend who walked over from there this afternoon told us. Ever very affectionately, FRANCIS GALTON.

[In Evelyne Biggs' handwriting.]

This is a duck of a place, so very simple and picturesque, and St Jean de Luz being four miles off one can go there for books, shops, etc. The Basque churches are beautiful, quite unique, and the people are very devout, the church here being quite full at every service; every man and boy seem to go. I believe this would be quite cheap in the summer but I will inquire here and at Sarre and all the little places; Argelès would be dear I am sure. How very sad that Guy can't go with the Whelers. I do call it the most disappointing thing. They would all have enjoyed it so. Much love to all from E. BIGGS.

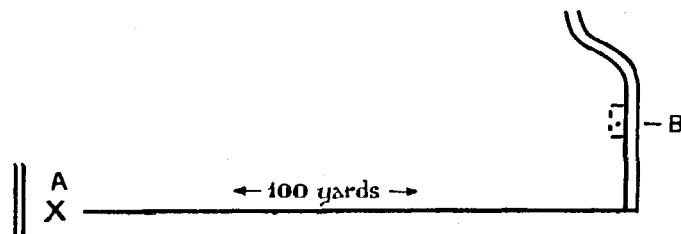
HÔTEL DE LA RHUNE, ASCAIN, BASSES PYRÉNÉES, FRANCE. February 9, 1906.

MY DEAR EDWARD, We are staying on at this cosy picturesque inn, for the weather has been too bad of late for gadding about, so the above continues to be my address.

Thank you much about the things that you have offered me. I endorse the list with a "yes" in pencil on those I would gladly have, my Father's portrait especially. Few relatives now living recollect him, none as I do. The trifles about my own early life I should be glad to keep, with a few others of the same quality that I possess already.

When you return, the garden and trees will have begun to be green, and you will appreciate the result of the clearings and improvements. I am so glad you are going, but it will not be all fair weather. *If*, when you are at Porto Empedocle, a party is made to go to the *town* and *cathedral* of Girgenti, do go with them and manage to hear the wonderful acoustic properties of the building.

You sit at A where the confessional used to stand (before these properties were discovered) and the slightest whispers are heard by a man at B who stands in a gallery hidden by a perforated



screen of wood and who repeats them. Eva and I sat on the same bench placed for the purpose. She whispered numerals "venti tre," etc., so low that I myself, through my deafness, could not properly hear them, and back came the loud repetition from the man at B.

The feature of this hotel is a pet wild boar, 10 months old, with formidable tusks already. He is kept in a pen and allowed an occasional run and frolic with friendly dogs. It is very funny to watch his short gallops, sudden stops and twists, but above all to see the instinctive way in which he twists his head as though to strike upwards with his tusk. I don't feel quite easy when the animal runs to or past me, for he is as high as my knee and could do mischief.

He will soon be dangerous, and have to be converted into ham. He does not smell a bit in the open. His hair is thick and bristly and of a rich brown, and his head and mane ("hure" is I think the technical word) are grand for his size. I like these Basque folk much, they are so quiet and orderly and substantial. But as for their language, it is impossible to a stranger.

Eva asks me on her part to say that if one of the *steel spectacle cases* that your mother wore, which were very characteristic, happens to be available, she would prize it much as a souvenir.

I am glad the *Report* is so nearly ready. What a long time always intervenes between the time when a book is apparently ready and that at which it actually appears. I hope that the new Ministry will go in for research. Best love to M. L. You both need a complete change of scene and a rest. Ever affectionately, FRANCIS GALTON.

HÔTEL DE LA RHUNE, ASCAIN, BASSES PYRÉNÉES, FRANCE.

February 16, 10 a.m., 1906; aet. 84 yrs. 8 hrs.

DEAREST MILLY, I had not realised before receiving your letter of a week ago how anxious you have been about the eyesight. The Doctor's favourable verdict must have given great relief. A change of spectacles may do much. I must write in a much clearer and bolder hand, like this*. We are in the midst of bad weather, February being the worst month in these parts, and I have been house-bound for days together, but very cosy and very happy with plenty to do. They feed us so well and the cooking is so juicy and good. The place is said to be beautiful in summer, now of course it is bare but some fields are very green. The typed copy of my "Resemblance" paper arrived yesterday, so I hope to hear from Karl Pearson in two or three days. Enclosed I send a pencilled *résumé* of the chief points in it, in case you care to read it. It is not worth keeping. It does one good to have to try to explain oneself in a clear way and briefly, so this pencilled scrap was a self-discipline. The late John Murray, the publisher, advised those who were about to write for the first time each to keep some one friend in constant view, and to fancy he was writing to that friend. You ask about that German translation so I send the only copy I as yet have, but more are promised; in all probability I shall not want this again, so pray keep it until I write. (See postscript.) That blessed book on *Noteworthy Families* is not even yet published, but covers were sent to me to choose from, which I did. It looked quite nice. The report of the Louping-ill, etc. Committee, of which Edward Wheler is an active member, is on the verge of publication, and is an admirable piece of scientific work. Part III mainly written by himself is a summary of the rest. It is most instructive. I think the results will form an epoch in the progress of knowledge of disease and how to cure it. The strangest part of all is that the blood of sheep differs notably in its *quality* at two different seasons of the year. In one it kills a particular sort of microbe, in the other it does not. It is equally the case whether the experiment be made on the live sheep, or in a test-tube with cultured microbes. I fondly believe that the time will come when doctors, after feeling pulse and taking temperature, will ram a sharp tube into the patient and take from him a drachm or so of blood to experiment with. I ought to have begun by thanking you for your kind birthday letter. I am now four times as old as when legally a *man*, viz. 21 years, and cannot in retrospect make up my mind which of these four spaces has left most impression. They all seem very long and very different. I don't quite catch the point of the following remark, which has been sent me by letter; perhaps you or Amy can. It is that there are three sorts of religion: Religion, Irreligion and *Bi*-religion. It was sent me by a shrewd person as containing a shrewd meaning, which I however cannot discover. Best loves to you all. Ever affectionately, FRANCIS GALTON.

P.S. Alas, I can't send the German article by book-post because I have pasted the writer's letter inside it.

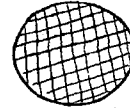
Enclosed with letter of February 16th.

Measurement of Visual Resemblance.

When a person is walking towards you the first thing you notice in *his face* is its *general shape*, which may be the same as that of many people (I leave all the rest of his body now out of account). When he comes nearer, the *general markings* of the face are seen, but not enough

* Change of handwriting, but it was not maintained.

to identify him surely. When closer still, you see the *individual features* clearly. I ought to have begun a stage earlier, by saying that when first he is seen at all, his face is little more than a dot and *cannot be distinguished* from that of any one else. You can see all these grades of resemblance in the faces of a group-photograph of any crowd. Each grade of resemblance is connected with a "critical distance." Further off it ceases. But it is not simple distance that we are concerned with, it is with distance *and* size, in order that what is true for a big picture shall be equally true for a miniature. Therefore the unit is the *angle*. The size at a distance is expressed by the *angular size*; the distance *and* area by the *angular area*. The particular angle I use is approximately that subtended by the disc of the sun (paled by a cloud). It is that of a breadth of 1 seen at a distance of 100, as one-tenth of an inch at 10 inches, one yard at 100 yards, and so on. It is only $\frac{1}{10}$ th wider than a sun-breadth, so, wanting a word for it, I call this angle a *Sol*, and the square whose side is a *Sol*, a *Square-Sol*. My *measure* of any of the above grades of Resemblance is the number of Square-Sols at the *critical distance*, this being proportional to the number of *just-distinguishable* plots. The number of square-sols is easily determined by a low-power telescope with appropriate cross-lines in its focus, such that each little square is exactly a square-sol, and one counts the squares that cover the image. I have quite another page-full about this with which I need not bother you now. The above is a mere outline of what I am at. F. G. February 16, 1906 (aet. 84 years and 8 hours).



HÔTEL DE LA RHUNE, ASCAIN, BASSES PYRÉNÉES, FRANCE. February 18, 1906.

MY DEAR EDWARD, Part III is most clear and pleasant reading, and the results both practical and theoretical will strike everyone as first-rate. You have vastly improved Part III. Somebody will be down on "*Endemic*—confined to a particular *district*," but let that be.

I am very glad all is getting ready for your Mediterranean holiday and sincerely hope you may have none of the abominable Bay of Biscay weather that has plagued us during the past ten days, up to yesterday morning.

As regards some of your dear Mother's things,—on or about whose birthday you may receive this—you mention the engravings of *Hodgson*. Yes, I should be very glad to have one of them, but *without* the frame, as its destination will be in a portfolio. *Hodgson* brought me into the world 84 years ago, he advised my father on my education, I worked under him at the Birmingham Hospital, travelled, on his recommendation, with one of his pupils, afterwards Sir Wm. Bowman, lived in the house of another pupil, Professor Partridge (father of the caricaturist), when medicalising in London, and saw much of him up to his death. So he fills a large part of my recollections and I should be very glad to preserve his portrait.

The photo you send of Claverdon garden from the verandah gives a capital idea of part of the changes. I shall be most interested in the full result when I return. We stay on here, having only partly seen the neighbourhood yet owing to vile weather, but this is a land of surprises in that respect. The sun may burst out at any moment, as it has done while I was writing this; then, squalls of hail and cold and all that is unpleasant.

I wrote to Erasmus two days ago and hope to hear that he is well again. Milly and I write weekly. She told me of your kindness in asking Guy to join you, and of his very great regret that his lost arm unfitted him for sea voyages. I suppose the least bit of an arm is of much help, and he has none left, which makes the difference between what he and, say, Lord Nelson, could do on board ship. With best loves to you and M. L.

Ever affectionately, FRANCIS GALTON.

P.S. Eva would of course join, but she is at the Basque Church.

Address now: Hôtel Terminus, St Jean de Luz, Basses Pyrénées, France.
February 24, 1906, Saturday.

DEAREST MILLY, Yours is just come. Yes, it is evidently Birrelligion. I had forgotten that he was the new Minister of Education. We leave here on Monday and stay loosely on at St Jean de Luz, so as to get a few days at San Sebastian. The weather with the exception of two beautiful days has been execrable, and is so now. Eva will send you a post-card about this place. I fear it is liable to inrushes of noisy French, who go up the Rhune (3000 feet) and have a grand dinner, sleep here and return to Biarritz, etc. on the morrow. One noisy party of six

men in two motors appeared here three days ago. They drank like Britons and sang the Marseillaise like Frenchmen and danced in rhythm to the chatter of the motors in the *place* in front of the hotel. Much of this would be a nuisance. The inn does not possess a third story, only two of them. I would send you the final proof of the *Louping-ill, etc., Report*, had I not already sent it on to Erasmus. The scientific part of the inquiry is by Dr Hamilton. Edward Wheler's part was making a readable summary. Parts I and II are technical and confused, but they contain the facts on which the summary, Part III, is based. I have no doubt that Edward Wheler gave much help all along. I *think* that they have good men now inquiring into S. African cattle plague, but these inquiries take much time. It is long before a true clue is found. Louping-ill was at first ascribed to *ticks*, but it was proved that they had nothing to do with it. The malaria mosquito, and the poison *carried by*, not emanating from, the tsetse, are instructive instances. When the Blue Book is out, you will like to read Part III, which I presume will cost under 6*d.* Parliamentary Reports are always issued so cheaply, at little more than cost of paper and printing. I am glad you could make something out of my brief summary *re* "Resemblance." Karl Pearson approves, but I do not, of the paper I have had typed. The subject has many side issues, and I must publish nothing without examples, but I see my way now pretty clearly. Karl Pearson helpfully suggests that I should work out *fraternal* resemblance and compare the numerical results so obtained with those already derived from measurements, and which are now certainly determined to within less than $\frac{1}{10}$ th of the stated value. So I shall take steps towards doing this. Arthur Galton has been staying at Claverdon. He has many staunch friends. I wish I could appreciate him more, but his ideals in every way differ much from my own. I am always delighted to hear good words of him, being a relation. Eva gave to a young lady friend an introduction to his brother Ralph Galton in Ceylon, and she wrote from there a few days ago charmed with him. The young lady is a Miss Riardon, a Canadian, who travels far afield with her aunt. We met them in Sicily. How you are all marrying! Eva knows well about Mr Cope's merits. I shall be half sorry and half glad to leave this restful place, but it is becoming too restful in this weather, that keeps me for many days at a time wholly indoors. Novels are a great resource in the evening—good ones and big type. There is a very good circulating library at St Jean de Luz. I described our wild boar as having tusks. He has none; I mistook tufts of light-coloured hair for them. When I first saw him he had been, I suppose, shut up over long, for he rushed about hither and thither with short turns like a lunatic snipe and I could not see clearly. Since then he has been very quiet and the boys scratch him as he lies on his side to his great enjoyment. He is a funny and a handsome beast. Best loves to Amy and you all. Ever affectionately, FRANCIS GALTON.

Post-card. Hôtel d'Angleterre, Biarritz, France, will be our address. *February 26, 1906.*

Such a disaster to our best clothes. They were all left at the Hôtel Terminus, St Jean de Luz, which was totally burnt on Saturday night. Such a panic, we hear. All the tenants out in the streets, in a gale, in their chemises! We were to have gone there for a week, to-day. As it is we go to Biarritz to refit. All my papers and valuables were fortunately with me, so none of them are destroyed. Only a holocaust of good clothes. It was the fire in a *Frenchman's* chimney that caused the mischief. We leave Ascain to-morrow morning. FRANCIS GALTON.

Portion of a letter addressed to Edward Wheler.

SAN SEBASTIAN. *March 12, 1906.*

Your Marseilles card of March 8 just come. So glad that all goes well. We are tripping in Spain for a very little while. Our chief news is already a week and more old, namely, that all our smart things, which had been left in charge of a smart hotel, while we roughed it in the country, were utterly burnt, hotel and all. It is funny being clotheless, but the natives in these smart districts all wear clothes and have tailors and linendrapers where they can be bought. I had all my papers with me.

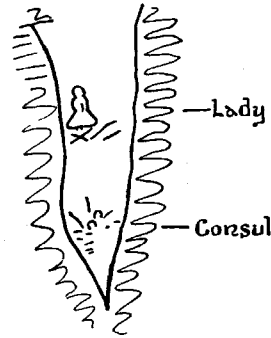
Lots of Royalty here, and Grand Dukeries, and I presume Royal Courtship too. The King of Spain looked older and more set-up than I had expected. His profile is pronounced. It is a very different face from that which is printed on the front of this card. You fly *with* the mail and I doubt whether Alexandria would still be a feasible address, so I send this to Malta. I hope

you liked what you saw of the "unspeakable" Turks. You must tell me which of the various sea-port rascalities you come across strikes you as the worst. I should back those at the Piraeus. I have tried to make a tinted map of European knavery, marking the most knavish parts with the darkest tints. English public schools were the whitest, and shades thickened about the Levant. A friend who in his youth was appointed (?) "Judge of Appeal" to the Ionian Islands, told me there were more cases of *Appeal* (not of Law Suits) in one of the Islands than there were adult male inhabitants. I am in for law now, to try to get some compensation for my burnt clothes. I don't expect any but shall certainly have to pay the lawyer. Best love to M. L.

Ever affectionately, FRANCIS GALTON.

SAN SEBASTIAN (we leave to-morrow). *March 25, 1906* (one quarter of the year gone).

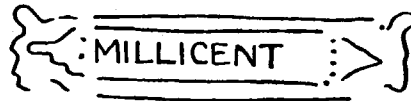
DEAREST MILLY, Your dates will apparently suit us well and accordingly I will arrange generally, leaving details for later on. We have had some abominable weather, cold and snow storms, just like you have had according to the papers. So expeditions have been nil. I wonder if the following got into the English papers. A week ago, a party of friends, including the French Consul and a charming Spanish lady, a quarter and more English in her ways, drove some 12 miles from here to visit a famous grotto and cave (prehistoric remains, etc.). It is a long way underground; the party go with lighted candles; at one place the path crosses a deep crevasse, over which a wooden bridge had been put four years ago, for the King of Spain. Nobody had visited the cave since. The wood had rotted, the bridge gave way and down went the two. The lady stuck 10 metres down against some débris of the bridge. The Consul fell as far again down, upon a ridge. Fancy the alarm! It was two hours before ropes and help could be procured and they were pulled up; the lady in blood and dishevelment, the Consul barely conscious, having been stunned. They are, I believe, not seriously the worse for it all.



A narrow shave like this suggests epitaphs. I heard the following lately, and the last two lines "obsess" me. I don't know to what careless, vicious young genius they referred.

"He revelled 'neath the moon,
He slept beneath the sun,
He lived a life of *going-to-do*
And he died with *nothing done*."

So the *Noteworthy Families* is at length published and you have received your copy. I am glad to have made much of Schuster. He is a good, gentlemanly fellow and feebly protested against it, but it has encouraged him and he is working hard at families now. I think I told you of the speciality of these parts of inlaying iron with gold thread and making ornaments. They do it very cleverly and prettily. The pattern is engraved, the very thin wire is punched in with a fine punch, the whole is heated which somehow solders the two metals, and then it is polished up. This exceedingly fine work is done by the naked eye. The man I saw at work is a fine big fellow, but his sight must be such that he could see as much detail in the eye of a needle as you and I could in—what shall I say—not exactly a "barn-door."



I got him to do a brooch like the above (Eva sketched the outline), which I will send as a memento, when we return within reach of easy and honest posts. After beginning this letter by abusing the weather it has suddenly changed into calm sunshine and we *are* going at once for a good expedition, so I will finish this later.

Monday morning. We had a grand day yesterday to Loyola's place—perfect weather, two hours train, four and a half in carriage in all. The place itself seemed hardly what it should be. I had hoped to find a record in portraits, pictures and maps, of the progress and misfortunes of

the Order, and a good library, besides some idea of Loyola's own surroundings. But there is nothing of that. Plenty of gorgeousness in marble and gold, small taste, and nothing of graphic historical value. However the drive, etc., was most picturesque and to-day the cold rain has recommenced. I got a ring of no value, which may do for Amy, with the Spanish equivalent to SOUVENIR OF LOYOLA upon it. It shall be sent with the brooch. I am writing on my knee in a bad light, the morning is so dark and dreary. We sleep to-night at St Jean de Luz.

Ever affectionately, FRANCIS GALTON.

I don't know where to tell you to send your next letter to me, so don't write at all!

42, RUTLAND GATE, S.W. *April 7, 1906.*

(I enclose the German pamphlet of which I wrote and promised to send.)

DEAREST MILLY, It is so pleasant feeling in one's own clean home again and receiving smiling welcome. We had an excellent passage cross-channel and all is well, except that Eva has a rather bad head cold and keeps half this day in bed. I send the brooch and ring; also, I have ordered to be sent to you, from me, Skeat's *Concise Etymological Dictionary* which is the book you refer to and is I find a capital book to lie about, at hand when wanted. You praise me too much in your letters, please don't any more. This reminds me of a true story of the present Lord Thring when he was Parliamentary draughtsman and had in consequence to discuss familiarly the terms of proposed Government bills with the Cabinet Ministers who introduced them. He was very outspoken and uncourteous-like and talked of everybody as d...d fools. Bob Lowe one day said to him "Now, Thring, we will understand once for all that everybody except ourselves are d...d fools, so you need not trouble to repeat it, and let us stick to business." By the way, Lord Thring told me in answer to a question, that of all the many Cabinet Ministers with whom he had worked, he rated Gladstone and Disraeli as quite the first. He said they were of different "clay" from other men. On the first occasion, he put Ayrton third, but in later years when I asked him to verify my recollections, he did not particularly dwell on Ayrton. We did not do much sight-seeing in Paris, only Notre-Dame, Sainte Chapelle, Louvre twice, etc. Eva quite thinks our unpretentious hotel would suit you. You have to give three days' notice before leaving and would of course have to arrange before coming, and not take your chance on arrival. I have seen but few friends yet, being busy. One was William Darwin just now, when for the *first time* I saw the *Noteworthy Families* book, Murray having omitted to send me a copy, knowing I was abroad. I tea-ed yesterday with Miss Baden-Powell (who does the honours of the house), having just found a card asking me to come. There is a wonderful collection of curiosities, Ashanti as well as S. African. She had a wire gauze thing like this



with a cross-bar to hold it by to put tea in, and to lower it into the teapot. It is taken out after standing long enough. She got hers at the Army and Navy Stores. It seems a capital plan. I have just got such a pretty card of invitation to a golden wedding, with portraits of the pair 50 years ago and now. It is from Sir William and Lady Crookes. Also, a still more ornate and grand card, engrossed in black and red letters, of invitation to a 400th centenary of Aberdeen University in September. It is all in Latin and drawn up in a very complimentary form. But I can't accept, it is too far and bustly. Sir George Darwin has gone to Philadelphia, as the representative of England at the forthcoming Benjamin Franklin commemoration. His wife is a descendant, great-grand-daughter, of a fellow-worker of Franklin. So it is very appropriate. Ever affectionately, with many loves, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *April 17, 1906.*

DEAREST MILLY, I am glad you like the brooch and Skeat, and Amy her very unpretentious but characteristic ring. The sudden death of my—I might almost say colleague and—friend, Professor Weldon, has been a great grief and will be a serious scientific loss to my other colleague and friend, Professor Karl Pearson. Weldon came to London alone for a night or two, while

suffering from incipient pneumonia. He became rapidly worse and was put by friends in a nursing-home, his wife having no previous idea of it, and being then happy with the Pearsons, and he was dead in a few hours, his wife reaching him while he was still conscious but very ill indeed. He was one of the strongest of men constitutionally, but took liberties with his strength. It has cast a gloom over this house. We go to Lucy Studdy to-morrow, Wednesday, and the plans are to stay there over Friday night and to go to Claverdon Leys from Saturday to the ensuing Thursday. The next Saturday—Monday I go to the Frank Butlers who have a charming little house at Witham. He is now full Inspector of Schools and will probably before long be promoted to London work. One effect of the fire at St Jean de Luz has been to show how much fatter I have grown of late years. Certain clothes, left in my wardrobe of recent years, have been tried on and found too tight, and are being sent to the tailors to alter up to date. I heard of a man who said to his tailor, "I am now forty and never had occasion to be re-measured by you." The tailor smiled and said, "We generally ease the fit a little when our customers seem growing stout, without troubling them about it." I can't now take enough exercise to keep muscles fit; it is no good trying. It only fatigues and I have capital digestive health as it is. Chamberlain never takes exercise, neither did the late Lord Salisbury. I have now got back with proper appliances to my "Resemblance," but am less confident than I was of getting *useful* results; the theory is all right, which is something though not enough. You will have enjoyed this weather. I hope that Dartmoor won't be set alight. Many moors are burning, I see. We have had long sits in the Park, which is growing beautiful. Dear old England. She *has* merits. Best loves. Ever affectionately yours, FRANCIS GALTON.

CLAVERDON LEYS, WARWICK. Saturday, April 21, 1906.

(I go to Rutland Gate on Thursday.)

DEAREST MILLY, On arriving here about lunch-time I found your letter. Guy's chill, Amy's influenza, and the combined want of Cook and Parlour-Maid are a large tale of mishaps. The bitterly cold weather of the last few days and the blackened moor fill your cup almost to overflowing. Claverdon gardens and shrubbery are greatly improved. All the former stuffiness from overgrowth of trees is gone without any sign of bareness. The ground too is judiciously levelled here and banked there, so it is becoming both pretty and interesting. Edward and M. L. look very well. The voyage and change of scene had become a necessity, for they were overworked. Lucy and Col. Studdy *seemed* quite well, though he is not so really, but he mends slowly. Their house is very pretty. Lucy's embroideries, framed and hung on the walls, make a brave show. I read through the typewritten copy of Bessy's memoir, which is very readable by any one and full of interest to her own family. It wants "perspective," treating all occurrences too much on the same scale. We are discussing how to treat it to the best advantage, by adding notes and illustrations, and probably printing it for private circulation. Eva is quite done up, I fear, and fit only for quiet at present. She has Gwen Chafy with her, otherwise the house for the moment is almost shut up.

The loss of Weldon is a severe one, from many different points of view. I attended the funeral service at Merton College on Wednesday, but the weather was far too bitter for me to go to the Cemetery. All was very sad, and through change of address I am temporarily out of touch with the Pearsons, and through them with Mrs Weldon. His death will modify many of our future plans and movements. It is very sad for us, and almost desolation to the Pearsons.

I did not go yesterday to see Eva's stained window given over to the church at Ettington. It was too cold, but Lucy went and brought back Constance Pearson for the night. I left her with them. What a large scale she is on! I must leave off now as tea is coming in and it is nearly post-time. Very best loves. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. April 28, 1906.

DEAREST MILLY, Yes, the window in Ettington new Church was put up by Eva and her brothers and sisters to the memory of their Father, Eva taking all the trouble and bearing nearly all the cost. She has lent Count Russell's book; you shall have it in time. There is little in it bearing on the picturesqueness of the lower heights, but great lamentation over the want of enterprise in not building hotels, etc., upon them, as in Switzerland. I will read the

Bishop's Apron as soon as I can get a sight of it. The rain had not reached Claverdon when I left on Thursday, but there had been some snow. Edward is greatly improving the place by cutting down a great amount of overgrowth and re-forming much of the garden. He is also evidently becoming an important man in the county, being so familiar with county duties, and eminently useful and kindly. His Land-Agents' Society is quietly growing into a great institution. The Studdys have arranged their house very prettily. He *looks* well, but is not yet quite well. I go this afternoon to the Frank Butlers for Saturday to Monday. He is now *full* Inspector of Schools and lives at Witham, in what I hear is a very pretty house, with his wife and three little daughters. His eldest brother, Cyril, will be there. Cyril married a rich Miss Pears many years ago, bought latterly a country place near Shrivenham and is High Sheriff this year for Berks (or is it Bucks?). Anyhow it is the county in which Reading is. I can't think of the preceding lines to Canning's "Buck-, Buck-, Buckinghamshire dragoon." How Canning must have bubbled over with fun! Last week or ten days have been in great part melancholy. Weldon's funeral on Wednesday week in bitter weather, and the cold weather subsequently, had given me a sort of chill, which all the warmth and hospitality of the Studdys and Edward Whelers did not wholly overcome. You would have laughed to see how I was covered up at night, and fired—big fires, I mean, in bed-room—just like a decrepit nonagenarian. I drove over with Edward (shut up) to see the last of 5, Bertie Terrace, which has been a second home to me for more than fifty years. It was very painful. Bessy's old house, which with the garden went to Lucy, *has* been sold. We lunched with Gussie and had news of Grace from Athens. Eva would have added a line, but is just now upstairs. She is still far from strong, I am sorry to say. With loves to you all. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *May 6, 1906.*

DEAREST MILLY, You will be growing restless like a migratory bird. I shall be curious to learn your plans and dates generally; by the 27th the weather ought to be warm in the south, but early June is full early for the Pyrenees near the bigger mountains. You will find flowers at all events. Your son Frank will have a busy and responsible time in Natal, such as young men love and parents fear. Eva and Walter Biggs* (who is up here for two or three days) went last night to the great meeting of Roman Catholics in the Albert Hall. That big building was full to overflowing, and vast crowds gathered in the streets. It was very impressive, I hear, most enthusiastic but well-ordered, and the speaking both good and temperate. The whole eleven thousand sang a hymn in unison. Frank Butler (as School Inspector) tells me that he thinks the bill would be quite *workable*, independently of its merits, I mean. I am going with Eva this morning to hear, or rather to try to hear, a sermon in its favour. All the same, I don't profess to really understand it, and have not fairly tried as yet to do so. Ethel (Galton) Marshall Smith† lunches here to-day and Violet looks in after. Then Eva and Walter go to St Paul's, and he is to hear the Education Debate in the House of Commons to-morrow. It is "history in the making."

Lunch is over. The sermon was, alas, almost inaudible to me, to my great regret. I have no news. Eva and I went to Hampton Court yesterday afternoon. The morning was brilliant, but clouds and cold wind came, and the expedition was a failure. So many things of Bessy's and Emma's have been offered very kindly to me, by both Edward and Lucy. One of these is the original picture of my Father, signed by Oakley, which I have put up in the place of the *copy, also by Oakley*, which I had. The latter is good, though not equal to the original, and it is now of no use to me. Would you like to have it? It ought to be in the family. I will send it at once, frame and all, in quite good order, if you like. Family matters remind me of Mrs Schim., and she, of Bristol Cathedral where she is buried, and that of the Bishop of Bristol, with whom I was talking two or three days ago at the Club. He is delighted at being asked to be President of the Alpine Club and has gladly accepted. He was a great climber in old days and more especially an explorer of caverns! Ever affectionately, FRANCIS GALTON.

* The Rev. Walter Bree Hesketh Biggs, Evelyne Biggs' brother.

† Ethel, daughter of Cameron Galton, married a Marshall Smith.

42, RUTLAND GATE, S.W. May 14, 1906.

MY DEAR LUCY*,

X Ladywood

River Rea
 X Duddeston

X Larches

My *impression* is that the three places† are the corners of an equilateral triangle, three miles to the side—but I have no map of Birmingham whereby to verify. *Ladywood* is by the “Crescent,” to the right of the road from the Town Hall to the Five-Ways. *Duddeston* is located by St Anne’s Church, and the *Larches* by Sparkbrook; I can give no more exact reference to the latter. The River Rea, once sparkling, subsequently filthy beyond compare and finally diverted into a sewer, fed the Duddeston ponds. One was called the Mill Pool and, I presume, not only *had* acted but did act during my grandfather’s life-time, as such, to the Duddeston Water Mill, which subsequently was partly if not wholly replaced by steam power.

I am very glad that Arthur takes kindly to the idea. He is not handicapped, as I am, by crowds of ancient recollections, which had my Father and Mother, Uncles and Aunts, as their focus, and are with difficulty adjustable to the focus in which you are concerned, namely, your Mother.

I feel as if I did not deserve to be forgiven for my blunder about the paper of dates. It confirms a strong impression I have long had, that the way to mislay a document is to put it in some peculiarly safe place. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. May 15, 1906.

DEAREST MILLY, It is a relief to hear that the picture arrived safely. Glass, when cracked over a water-colour, does or may do great harm. Our letters will get again into order this week. To-morrow we go to Cambridge for the day to see Montagu Butler and my portrait. Also, some of the Darwins, *not* George I am sorry to say, who will be away on business. Eva went yesterday with Gwen Chafy to see both Lucy Studdy and the memorial window at Ettington which they both liked greatly, I was glad to learn. Eva is much better. Guy must be glad of a fortnight of his old work, which he does so well. What an account you send of Johannesburg rascality. I have arranged to have a look shortly at the Identification Department in Scotland Yard. The Chief Commissioner, Mr Henry, was, as you may remember, *lent* by the India Office to the Colonial Office, in order to get the Johannesburg Police into order, before taking up his present appointment under the Home Office. He told me that for Kaffir police purposes, a great desideratum was that each man should have, and be always compelled to use, the same readable *name*. It would be all the more necessary with the Chinese, whose names have less variety than those of Scotchmen (Highlanders). We have been very quiet at home. Last week there was a “gentlemen’s soiree” at the Royal Society, where one of the most beautiful exhibits was a set of four large maps including only a small part of the Milky Way. The multitude of small stars that photography reveals far exceeds what could have been imagined, and the brilliancy of these multitudes of specks is astonishing. Edward Wheler comes to us on Thursday for two or three nights. He has much business to get through—the Land Agents’ Society, and so on. I am going to subscribe to the *Times* library and shall put down the *Bishop’s Apron* on my first list.

* Mrs Studdy, daughter of “Sister Bessy.” It may interest the reader to know, that on the death of her mother, Mrs Wheler, she came into possession of several Darwin relics, and of these she left, on her death, the armchair of Dr Erasmus Darwin and silhouettes of his second wife and him to the Galton Laboratory.

† With regard to these three homes of the Galtons, closely associated with Francis Galton’s boyhood, see our Vol. 1, pp. 50–51 and Plates XXIX, XLV.

I am quite enthralled by one of Renan's books, the *Antichrist*. (I am reading it in an excellent translation with an excellent introduction by W. Hutchinson.) He makes out that Nero is the Beast of the Apocalypse, and brings in an enormous amount of the history of those times, most of which was quite unknown to me. It is a book well worth reading. Best loves to you all.

Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *May 20, 1906.*

DEAREST MILLY, The paragraph about Guy is pleasant reading. Edward Wheler, who has been staying here three nights, heard to the same effect from — Smith (son of the publisher), who is (?) Colonel of Guy's regiment, a few days ago.

Eva and I had a most pleasant 24 hours at Cambridge, lunching and spending the bulk of the day at Trinity Lodge, and sleeping at the George (*Sir* George) Darwins. The portrait looks particularly well in the Hall. The background being much lighter than those of the other pictures, and all being surrounded by dark oak, gives a welcome light to the general effect. Nothing could be better all round. Eva is also quite pleased with the memorial glass window in Ettington Church. She went down to see it on Monday last and to lunch with the Studdys. She has got Count Russell's book back and proposed to, perhaps she already *has*, post(ed) it to you. I can quite fancy Biarritz becoming enormously expensive. This is the beginning of its summer season, when wealthy French and Spanish grandees visit it in large numbers, and ordinary French and Spanish go in shoals and sleep six in a room, as we were assured often occurred. I shall be eager to know where you yourselves finally go to. We went last night to Stephen Phillips's play of *Nero*, having read it first. It is very "spectacular," but the acting was on the whole not quite first-rate. Still it was extremely interesting and apparently a just rendering of Roman Court life in those days. What villains they were! Talking of villains, I spent an hour in the morning yesterday seeing the finger-prints in Scotland Yard. Mr Henry (the Chief Commissioner of the Metropolitan Police) has got them into good order. The methodical arrangements are excellent. He has about 84,000 sets of prints and thinks he could deal with 150,000 without straining the method. There are more than 500 identifications a month, now; in the old days, there were not so many in a whole year. The burglars begin to use gloves, and now and then they destroy the skin of their finger-tips, but this grows again.

Ever affectionately, with loves to you all, FRANCIS GALTON.

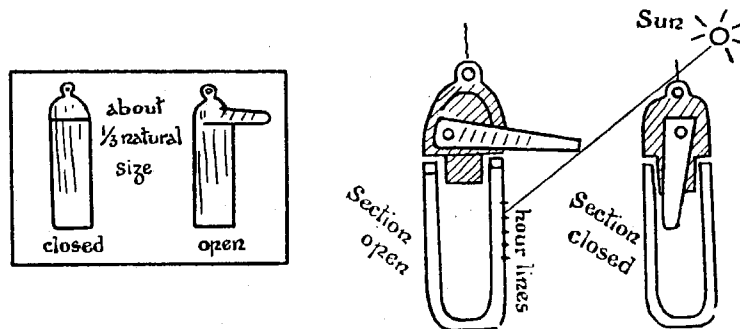
42, RUTLAND GATE, S.W. *June 2, 1906.*

DEAREST MILLY, I wonder where and how you are, after your very hot start. To think of your having been so near Rutland Gate on Monday! It was fortunate for *you* that you did not call, for on that day we had arranged to go to Claverdon. But in the morning I was suddenly seized with a strange ague-fit like I had last autumn; the doctor sent me at once to bed, and Claverdon had to be telegraphed to. I was rather bad for a few hours, and could not have seen you. The thing is gradually working itself off with bronchitis, and I get out, but am still over-weak. When inquiring about interesting places, did you ever hear anything of the Mediterranean side of the Pyrenees—Port-Bou, etc.? The places are said to be very picturesque, but the accommodation is not *smart*. You reach them *via* Perpignan. Louisa and I once spent some time at Vernet-les-Bains, at the foot of the Canigou. It had merits but is probably now a noisy bath place. Ibrahim Pacha was sent there in his old age to recuperate from his excesses. The doctor said that he must stop wine. On a second visit Ibrahim was worse and the doctor rebuked him for not obeying orders. Ibrahim flew into a fury and said, "Oh, pig-brained son of a she-ass, I have not touched wine, only two bottles of Cognac each day." Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *June 8, 1906.*

DEAREST MILLY, If you are having splendid weather, like us, you will indeed be joyful. Eva will enclose her letter to Count Russell. She saw more of him than I did and has corresponded with him already. What an ovation you have had at Montauban. Amy must have rejoiced in the Bishop, and you both have been delighted at the happy ways of Jeannie Ronsell and her kindred. We English *are* a nation of natural snobs, which Southerners rarely are. We do however bear some polish, though it is costly and laborious to rub it on. The servility to

persons of high social rank seems an expression of a conscious want of the polish that those have acquired and that they have not. If so, it is a pardonable feature, so far. I am glad you recall the *zinc* figure in the garden at Royat. It has left a deep impression on myself, not unlike that of Millet's "Angelus"—very sad, very brave, very noble. I had no idea that one of your sons had the honour of having played hockey with the present Queen of Spain! A lady who was here had joined in *eating a bun* with her, some years ago, at a pastry cook's. What a deal she has gone through already. Among the *minor* Spanish events is, I see, a resignation of the Premier, followed by a reconstituted cabinet. I am getting straight again and have driven out the last three days, and to-morrow we go for the week-end to friends at Haslemere. Next week I (and Gifi) go for three or four nights to Oxford, to the Arthur Butlers, which I think can be now safely effected. It is always such a great pleasure to see him. I am pitching into "Eugenics" again, seriously discussing the possibility and advisability of offering *certificates*, that must be trustworthy in reality as well as in popular appreciation, and that must be inexpensive and yet self-supporting. Though the thing is full of difficulty, I now think I see my way, so have just sent a paper to be typed, and to be submitted to a few critical friends before taking the next step. Lucy Studly is in town and dines here to-night. Her embroidery won two prizes at a recent exhibition at Oxford. If you come across a Pyrenean sun-dial, such as the shepherds



always carried with them, I wish you would invest in one for me. They can hardly cost more than 1 franc. I gave mine to the Pitt-Rivers Museum. The principle is to find the time by the altitude of the sun at *any given* season. The head of the dial is turned to the right place (month and day). The gnomon sticks out and casts a shadow. The cylinder is marked with proper curves, and is dangled at the end of a string, and the hour is read off. I have drawn the top badly here. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. June 16, 1906.

DEAREST MILLY, Your letter is very interesting, but I grieve at Edward's rheumatism. We have had three cold and rheumatic days here but the bad spell seems just over. Thank you much about the Shepherd's sun-dials. The rougher and more every-day order that they are of the better. I will even ask you to get me *two* of them. I had neat box-wood ones made for me in England some fifty years ago, and I calculated the curves, and had them cut in them, for the latitude of London, but I liked the rough native ones better as objects of interest. I hope you may come across Count Russell after all. Amy is well out of Montauban hospitality. Your account of her reminded me vaguely of Vathek, who, absolute and incomparably learned monarch that he was, was so upset by his inability to decipher the magical letters on the sword given him by the magician, that of the 163 dishes presented to him at dinner he had so lost appetite as to be only able to taste 35!

We had a most successful week-end visit last Sunday, when I was well "molly-coddled" under the surveillance of Eva, and three other nights at Oxford with the Arthur Butlers—all most pleasant. George G. Butler (whom you know) and his boy are with us now. They all go to the theatre to-night, with others who dine here. I shall smoke the cigarette of peace and quiet in great comfort at home. Fred's account of the Chinese would have been most welcome to the Unionist newspapers a few days ago, but after Mr Churchill's confession on the part of the Government that only twelve Chinese in all had asked to be repatriated, the case is closed.

The Ministry seem learning to blunder less, but have a difficulty in carrying out their party programme, etc., as stated at the Elections. I heard a good story of, let us say, Lady A., a great lady who lives in Grosvenor Square. She told her friend, say Mrs B., "I have asked all the new Ministers to my reception in July." Mrs B. said, "What, all of them? Have you asked John Burns and his wife?" Lady A. answered, "No, not them: they are impossible. Besides, I have never called there." Mrs B. said, "But you *must* ask them, or it will be a slight and they and many others of their party will be angry." So Lady A. went home and wrote, "Dear Mrs Burns, I hope you and Mr Burns will give me the pleasure of your company at my reception on Pray excuse my not having called, but the distance is so great from Grosvenor Square to Battersea." The answer came: "Dear Lady A., I fear that Mr Burns and I shall be unable to avail ourselves of your kind invitation, for I have *studied the map*, and find the distance from Battersea to Grosvenor Square to be *just as great* as that from Grosvenor Square to Battersea." Neat, wasn't it? Mrs B. told Lady Galton who told me. I am getting answers and suggestions to my typewritten circular about the Eugenics Certificates, which were sent to about half-a-dozen experts. We shall see the final results, probably in the first instance in a paper published somewhere. Best loves, ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S. W. June 24, 1906.

DEAREST MILLY, July 12th or 13th, as you propose, will suit excellently; so come here at once on your arrival. Eva will stay two or three days to overlap you and to have the pleasure of seeing you. What about Amy? The little dressing-room will be the only room available for her. It would be heartily at her service if she came with you. As the time approaches, you will tell me more particulars?—day and train, etc. To continue business, you will, of course, stay a full fortnight. Later on I should greatly like a week with you and I would arrange about Gifi in the way you describe, but I can't say more just now, as Eva's plans are not certain—cannot be certain—just yet, and mine would be somewhat governed by hers. The plan in outline is that she should go with her artist friend, Mary Savile, to some picturesque place, yet to be decided on, in conformity with Miss Savile's portrait-painting arrangements. Eva writes to-day to fix more particularly, but cannot hear for some three days, I expect. One idea was to go to Polperro, which would be very convenient to her and to myself. But this must stand over for a few days. She is most obliged for your very kind invitation, but she wants a bit of artistic Bohemianism badly. Miss Savile, too, who is coming into high vogue with great people, wants the same. Lucky for Bob, not to have been blown up! So glad the Pyrenees have been a climatic success, though not a social one. Hugh and Fred will, I trust, enjoy it all thoroughly. I have been in what is now for me a whirl of doings. There was a big dinner at Trinity College given to us old fogeys, once undergraduates at Trinity. I was the oldest fogey but one, but it was very interesting meeting many scattered friends. Llewelyn Davies was one, who sat next to me. Lord Macnaghten (the Judge of Appeal) was one of the guests at the Lodge and talked to me very pleasantly about R. Cameron Galton, who was his contemporary. They both won rowing prizes and were great friends. Macnaghten was a Senior Classic of his year. Then I had a good deal of talk with Sir Fowell Buxton, who told me he had a genealogy of the descendants of the Gurneys of Earham. There are upwards of 1000 now living, but of these some 200 must be subtracted owing to cousin marriages, which include duplicate entries of the same name. He has sent me some figures and asked me to suggest how to work the thing to the best advantage. I had some ideas and have written them out fully and sent them. There were many others of great interest to myself, but tedious to narrate. Then, one day, I went with George Butler and his boy, with Eva, into the country to hunt up family portraits of the boy's family, contained in an old house, whose representatives welcomed us warmly. In the evening at 11.15 I went to a big affair in the offices of the *Daily Telegraph*, to which the German Editors now visiting London were invited, and a lot of English to meet them. We saw the set-up of the paper in all its details and the beginning of the printing of it at 12.15. The scale of the whole thing is enormously costly. One sees that home industries, in producing things in *wide* demand, have no chance against big machinery. There are eight big machines, all fed from duplicates cast from the same type. Each machine is fed from a roll of paper four *miles* in length and drops out *Daily Telegraphs*, ready folded and dried, faster than it is possible to count—certainly at least five in each *second*. It was a wonderful display.

Ever affectionately yours, FRANCIS GALTON.

BRIDGE END, OCKHAM, SURREY. *August 12* (St Grouse of the Philistines), 1906.

DEAREST MILLY, The four letters which I return are like the opening of an Etruscan tomb, where all the contents appear just as they were deposited 2000 and more years back. How human we all are! I can quite understand your having felt just the same about your child and grandchildren as your mother did about me. Erasmus might, or might not, greatly like to see his own letter and others about Loxton. I have to write to him, and will mention their existence, especially that of July 19, 1839, so he can apply to you if he wishes. I recollect so clearly coming home—to Leamington—in 1840, and my sisters all in mourning array for my grandfather; Eva's *great-great-grandfather*. It is pleasant to read of the strong affection that your mother then had—even at that early date, I mean—for Aunt Brewin, or Aunt Sophia as she then was. We were rated by outsiders as a most united family and the letters show that we were so then. But after my Father's death the hoops that bound together the staves of the family cask seem to have given way, and with independence we mostly flew off in different directions. What good paper and ink they used in 1839–40. It is the bleaching and the shoddy (short fibres) and other material than linen, that cause modern paper to be so weak and perishable. But it is marvellously cheap. I suppose that paper is “pulped” over and over again until it serves no other purpose than to give bulk. The strength, such as it is, being due to a scanty intermixture of proper fibre. It is worth while to scrutinise paper through a strong lens and to notice its curious structure. I have been busy with my machine, out of doors, I sitting under an awning and the machine projecting out into the open, and now that I can test the plan experimentally and for the first time with proper appliances, am more doubtful than ever as to its real usefulness. But there are still some tests to be applied and some variations of method.

Yes, this August is a sad month to me, or rather a month that brings sad and solemn recollections. Dear Emma, I feel the want of her more and more, but she fully lived out her life. There were grounds for fear that her faculties would noticeably weaken before long. There is a Greek phrase, I think, “he was still young and his tomb was not yet in sight.” In my fancies, I don't see a tomb but a greenery with some cypresses in it showing over a bit of old brick wall on a hill about a mile off, where the peaceable cemetery lies. There are many small, nice, old-fashioned churches hereabouts and, as Sir Lucius O'Trigger expressed himself, nice quiet lying in the attached churchyards. We feel much at home here, having made many friends last year. The weather continues lovely—no rain; the trees don't show the want of it, though the gardens do. Your rain is wanted here by the farmers. Best loves.

Ever affectionately, FRANCIS GALTON.

Try to excuse smears and blots.

Lucy Cameron Galton comes here next Saturday for a week. I much look forward to going to you on or about September 4. We leave this on Thursday, August 30, thence to town to refit and to settle matters, and I should be free to come to you on September 3 or 4 (Monday or Tuesday). Please let the exact date stand over for a bit. (You must of course consider *your own convenience first.*)

ROYAL VICTORIA YACHT CLUB, RYDE, I. OF W. *August 14*, 1906.

MY DEAR FRANK, Our friend Collins is quite wrong about the compass points as used by seamen. No sailor would dream of saying N.N. West by West half North; he would say N.N. West half West. No doubt Collins had picked the term up among yachtsmen, who do make ridiculous mistakes among themselves, and there is no one to correct them. In mercy to Collins pray tell him. Many thanks about sister Adèle's letter and F. Miller's address. I am glad you like your quarters so well. What a cheerful companion Jenny would make for me; how we would converse and understand each other—like yourself and the camel did some 40 years since at the Zoo, when the camel flopped down on its knees and toppled over a lot of children and two ancient parties. I simply made a run for it—yourself ditto.

I get afloat in steamers often, but not in sailing vessels. How curious it is how people keep on using old terms, now meaningless. The newspapers and others constantly say such and such a company's steamers *Sail* on such a day in place of saying *Leave*. They carry no sails and have no masts except for signal uses.

I am as well as possible, but the toss by a cow three years since has spoilt my walking powers and my sea legs. Ever very affectionately yours, ERAS. GALTON.

P.S. Kindest remembrances to Eva.

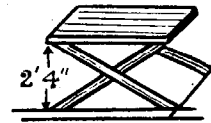
BRIDGE END, OCKHAM, SURREY. August 18, 1906.

DEAREST MILLY, I am glad that the proposed time for my visit suits you. The progress of the drains must be interesting to watch! We, like you, have at length had much rain, sorely needed here, and it is cold in the evenings, so we have begun fires and sit but little out of doors. The hammock had been put up and the tent peg seemed as firm as iron when I lay in it, but after the rain had soaked the ground, Eva tried it and out came the peg and down she came "Hammock and all" like the nursery song of the bird in its nest on the tree-top. We had tea yesterday with an interesting man, Mr Stokes, the iron contractor for the big Egyptian dams. His wife, an Ionides, is half-Greek, and grand-daughter of the Ionides who gave the collection of pictures to our government. Everything about his cottage by the side of a rushing mill-stream is thought out, home-made for the most part, and interesting. The stream is of considerable width and he built with his own hands two bridges across it; each is on a peculiar principle, and a water-wheel pumps water high up to his garden. Lucy Cameron Galton is with us for some days. The weather has been much against her sketching, but she thoroughly appreciates the paintability of the place. Cameron is taking a walking tour in Wales with Violet.

You recollect my pinched thumb-nail. It happened about July 26, more than three weeks ago, during which time the black has travelled only 7 millimetres forwards, say at the rate of 2 millimetres a week. It is now, as well as I can draw it, like this— and there is more black to an as yet unexplored distance below the flesh. In fact, it gets blacker and the nail seems more rotten nearer its root. I wish the surgeons would make bioscopes of healing wounds. In fact everything that grows might be bioscoped—humans, trees, etc. For a landscape, either a stone, or three smaller stones or bricks, would have to be fixed permanently in the ground, with holes in them for the legs of the camera, that it might be always in exactly the same place, then the photographs would have to be taken at the same hour on different days*. My machine† is now worked in my little so-called dressing-room here—sometimes still out of doors. All it wants is a common (it can't be too common) table to put it on, and it does not hurt a good one. A small table, so long as it is not less than 2 ft. 8 in. in length and 9 in. in breadth, is handier than a larger one. If you have not such, I could easily buy one in Bovey, or if none are to be bought, I could get a carpenter to nail up something thus:—



So I will bring the machine down on *spec.*, unless I shall have done enough with it before then. But the inquiry is very troublesome. I am still uncertain as to the real utility of such results as I am likely to get. Best loves. Ever affectionately, FRANCIS GALTON.



BRIDGE END, OCKHAM, SURREY. August 26, 1906.

DEAREST MILLY, If all goes well and the May Bradshaw is to be trusted, Giff and I will reach Bovey Station on Saturday next at 3.9, and will drive straight thence to Edymead, with the awning and with the machine. I have only just got it all into *fluent* working order, though it is so simple. Best congratulations to Amy on the Pope's autograph. May it convey a blessing! I feel quite interested about the progress of your drain. About the black on my nail, it is now 10 millimetres long and has five more to accomplish to reach the end. By pushing the skin back at the base I fancy I see the root of it (the black part), and its very rough commencement. This too is a subject of present interest and amusement. Nothing out of the common way has happened here since I wrote, and being at this moment rather hand-weary with much writing, and as we shall meet so soon, I will not write more. Lucy Cameron Galton has been a most pleasant visitor. She left two or three days ago. I take such a sound sleep in the middle of the day that each one seems to be two days and my dates are apt to be mixed. Best loves. Ever affectionately, FRANCIS GALTON.

* The coming of spring, or the passing of summer, might be effectively represented in this way.

† The "Measurement of Resemblance" apparatus, still preserved in the Galton Laboratory.



Francis Galton and his Great-Niece Eva,—Evelyne Biggs, at
Bridge End, Ockham, in August, 1906.

Address now to 42, Rutland Gate, S.W.

August 29, 1906.

DEAR SCHUSTER, The advantage of Doubleday's work is its direct way of meeting the question whether in the long run such and such classes prevail. The fact that one class is more fertile than another in one particular generation cannot be trusted altogether. It may well be the case that the marriage rate is different in small and large families or again (for which some grounds exist) that the tendency to fertility is more or less periodic. It is astonishing how often large families have few descendants in the next generation owing to causes that may be partly social, partly physiological, whose existence we may suspect but of which we as yet know next to nothing. "The fate of large families" would be an interesting inquiry, in its way.

Tell me more precisely the use that you think might be made of Burke's *Landed Gentry*. I leave Ockham to-day for three nights in London and thence, first to Devonshire and afterwards to the Midlands, but letters to 42, Rutland Gate, London, will always be forwarded on.

Very sincerely yours, FRANCIS GALTON.

Galton's Reply to a request on the part of Mr Frederic Whyte to know what he thought of Phrenology, September, 1906.

The localisation in quite modern times of the functions of the brain lends so far as I am aware no corroboration whatever, but quite the reverse, to the divisions of the phrenologist. Why capable observers should have come to such strange conclusions has to be accounted for—most easily on the supposition of unconscious bias in collecting data.

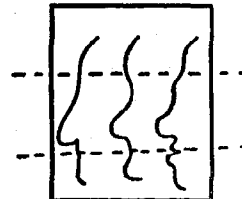
Whoever may seriously re-examine the question must procure a collection of appropriate cases by persons who know well the characters of the person named, and who, if possible, should be wholly unacquainted with the purposes of the collection.

A good way would be by fixing after much consideration on some strongly contrasted characters appropriate to the inquiry, and then to obtain returns from masters, etc., of large schools of the names of those boys in whom they were notably in excess or deficiency and to photograph the heads of those boys on a uniform method for subsequent comparison.

Trustworthy conclusions might be reached; but what qualified persons will undertake the labour of what will probably end in showing phrenological bumps to be meaningless?

42, RUTLAND GATE, S.W. September 12, 1906.

MY DEAR EVA, Will you very kindly do the following job for me, and send the results to me to Claverdon Leys, Warwick? I have traced a few of Miss Baden-Powell's silhouettes and send them herewith. Also I send a sheet made up of 15 smaller ones pasted together, all numbered. I want two or three of the silhouettes enlarged according to the instructions by the side of the sheet of numbers. All I want in the end is something like this on a very large scale. You can mess the paper with crayon as much as you please but in each case draw a thin, firm, equally thick line through all the mess, to indicate clearly the outline. Choose whichever of the silhouettes you prefer, Marconi and myself being comparatively beardless would do for two of them. Generalise the hair and beard as much as you can, fancying it has to be worked in tapestry. I shall be so much obliged for this.



I have been working hard and getting on. The Athenaeum is shut up, and I don't care to go to its temporary substitute, but tea and lunch and dine here. There are various little things to tell, hardly worth writing about. I got a big strong kit-bag yesterday, to replace the burnt one. Kindest remembrances to your fellow-lodger. Ever affectionately, FRANCIS GALTON.

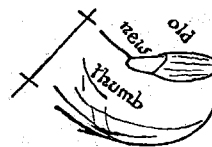
Tell me your plans when you write; I have somewhat forgotten what we arranged.

Address Malthouse, Bibury, Fairford (Glos.).

[CLAVERDON LEYS.] Sunday, September 16, 1906.

DEAREST MILLY, The past week seems to me an age through change of scene, though there have been no notable events. You are barricaded, I suppose, more or less. Here at Claverdon, where I am at this moment, there are big waterworks going on. In a spare spot

between the garden and the stables a cistern $20 \times 10 \times 10$ feet is just dug out and built round, and in an ingenious way all the water that falls on the many roofs connected with the farm-yard is collected into a pipe to feed it. Ever so much is going on besides. I had a quick but stuffy journey from Newton Abbot. The fast train was easily caught there, but there was overcrowding in it. The three nights in London were very profitable, for I finished my little paper and did various jobs, and I reached here, as arranged, on Thursday. Eva is at Bibury. I join her there to-morrow, for the week; then I go home, and she for a few days to Warwickshire, and we converge in London afterwards. I wonder if the drought has continued with you. There has been a little rain here, and yesterday a big threatening cloud, with apparently waterspouts of rain, hung over Leamington and elsewhere, but only a few drops touched us. The newcomers at Gannoway Gate (where Darwin lived as a bachelor, and the Torres till lately) were here while getting their furniture in. It transpired that the male could whistle through his fingers and after moderate persuasion he did. He gave us lessons in that musical and very useful art, but although I blow with his diagram by my side, in front of the looking-glass, for five minutes at a stretch, I have not yet caught the trick. Edward occasionally succeeds. I shall go on night and morning till I can. How many useful accomplishments are neglected in our youth!—this of making “cat-calls” among the number. I want it every day to get a cab in London. It beats all whistles hollow, but confessedly is not elegant to the eyes. I do not suggest Amy’s acquiring it. 5, Bertie Terrace is not yet sold, several things that they all are glad to have stored are still there. I had not the heart to look at it. Giff cycled over to Leamington and saw Temple, who had been here for a little while in Claverdon, and learnt that since then she had been somewhat seriously ill, a doctor-three-times-a-day business; I don’t know more. She is convalescent now, but weak. Yeales is, I hear, losing her memory. Everything ages, and is extruded when of no further use. Among others, I am glad to reckon my pinched thumb nail, only one half of the old one is left now. Good-bye, loves to you all. Fred was very patient. We were $\frac{1}{2}$ hour too early at the station and the train was late as well! Ever affectionately, FRANCIS GALTON.



I am writing before breakfast so have no message to send.

42, RUTLAND GATE, S.W. *September 23, 1906.*

DEAREST MILLY, I am really at this moment still in Bibury, but go home for good to-morrow. We, like you, have much sunshine and warmth, but I hear dismal stories from the Cumberland Lake country of what the weather is and has been there. Thank Amy ever so much for Mrs Benson’s letter which I keep and which confirms essentials. Amy seems to have told her that I said it was *Pob* etc.*, my point was that I thought it could *not* have been him but that I quite forgot *who* it was and wanted to learn. This, Mrs Benson supplies. The object of the visit to Lambeth was to see some papers in the library there which bore on the history of the Greek Church. For all the rest, I can trust my own memory. The interview was described by the Archbishop most graphically and forcibly. I have now been a week here at Bibury in extreme cottage-comfort. Eva has a lady artist friend, Miss Savile, who has to sleep out but takes her meals here. The post has just brought me the photo-process reduction of the diagram in my forthcoming paper (composed at Edymead); the proof will doubtless be at Rutland Gate. I shall be glad to have this preliminary off my hands. You shall have a copy of the thing when *Nature* has published it. I am receiving *excellent* tracings of profiles, full of character, from Dance’s big works. They are large enough to fill (allowing a full margin) one page of this note-paper, and are all of well-known contemporaries, sketched from life. They are making a most interesting subject for study and comparison. The caster of the British Museum coins is on his holiday, but undertakes to cast them all when I come back. I mean all in the list of 100 or so that I sent him. To cast all in the British Museum would indeed be a large order. To-morrow we all separate. Eva goes for a week to Warwickshire and then she rejoins me for good in London. We have not yet absolutely, but approximately, decided against wintering partly in England. The probable event will be that of going slowly Rome-wards early in November. I look back with ever so much pleasure to Edymead. Pray give suitable remembrances all round, not omitting the Signora.

Ever affectionately (from the awning as usual), FRANCIS GALTON.

* This probably refers to C. P. Pobedonosteff. See p. 548 above.

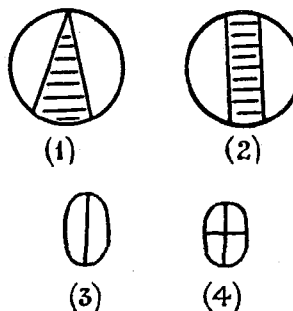
EDYMEAD, BOVEY TRACEY. *October 19, 1906.*

MY DEAR EDWARD, At length a newspaper notice has appeared of your Report which I enclose. It is by Prof. R. T. Hewlett, as I see from the table of contents of this number of *Nature*, Oct. 18, 1906. They have spelt your name with two e's. I am surprised that nothing was said about it at the British Association. It should have been referred to by the President of the Biological Section, but he (Lister) gave an Address by no means up to the mark, in at least certain particulars, and which is at this moment undergoing scathing criticism by Prof. Karl Pearson.

I have had a trying 12 days of Rheumatics and Bronchitis and though much better, am not yet sound. I funk now foreign travel and probably shall try *Plymouth* for November and December. Eva went down for a night to prospect, and reports favourably. Milly and I are to go down on Monday and conclude. London in November would help to, or quite, kill me. It is sad being banished. There are great offsets however to the discomforts of invalidism, in the care and affection one gets, the fires in one's bedroom, and the lots of sleep. Guy has been from home, but returns to-day. His renewed adjutancy hopes are now finally disposed of, by the appointment of Captain Weston as his successor. Sidmouth was a haven of rest to me for a week in bed. Thence I came here on Tuesday last in two easy stages, sleeping at Exeter. I was far too ill to see *Beer**, but I read about it and saw a picture of it. Neither could I make an excursion anywhere. I have learnt nothing whatever during the last fortnight except the virtues of a new (to me) pill—Podophyllum, with a little colocynth and hyosciamus. I shall adopt them in the place of compound rhubarb, of which in average health I take about one in two months. Of these, I have already had to swallow three. Erasmus wrote me such a nice affectionate letter in reply to mine; so also did Grace Moilliet. How beautiful Devonshire is, and how varied! Two seas, two (?) moors, lots of harbours and rich pastures, besides red earth and red cattle. Best love to M. L. I trust your Agents' meeting went off as usefully as hitherto. Eva goes to-day to London to look after winter clothing and the house. Ever affectionately, FRANCIS GALTON.

7, WINDSOR TERRACE, THE HOE, PLYMOUTH. *November 7, 1906.*

DEAREST MILLY, I must write my first letter from this charmingly placed club (Royal Western Yacht Club of England) to you, to ask you to thank Guy again for procuring me admission to it. We get on quietly and happily. I have one friend at the Aquarium, Bidder, grandson of the "calculating boy," and have made acquaintance with the others there. They do excellent work. Their steam trawler, the "Huxley," is just back from the north seas, and is off westward for a few days, and I am to go over her when she returns. Bidder has been making prolonged experiments on the drift currents of the North Sea, by sinking closed bottles with a paper inside and with a very legible label asking the finder to break the bottle, take out the enclosed small roll of card, fill up the spaces with date and place of recovery, and to post the card to him. It appears that fishing with trawls is so searching, that 77 per cent. of the bottles are recovered by the fishermen, some after drifting up to even 140 miles. My other important experience regards cutting a cake. The object aimed at is to make the arcs of the two slices equal, without regard to the part of the circumference, so (1) does as well as (2). I have tried both, and rather incline to (1). It is an excellent plan for keeping the cake moist. An indiarubber band keeps the halves together. Cross cutting is not necessary, (3) being as good as (4).



We were grieved at your bad cold. I hope it is disappearing at a normal rate. It has been too cloudy and rainy to tempt us out much, but the day before yesterday we had a grand forenoon seeing the dockyards. The Nasmyth hammer worked beautifully. Do you happen to recollect the crayon picture of a *meteor*† that I have? It was drawn and given to me by Nasmyth, who saw the meteor at his own place in Kent, I having seen it (and

* "Beer" or "High Beer," near Winterbourne-Kingston, one of the homes of the original Galton yeomen; see our Vol. I, p. 40, fn. 2.

† This drawing is deposited in one of the drawers of Galton's writing table at present in the *Galtoniana* in the Galton Laboratory.

published a brief account of it) at Boulogne. What a noise it made! People thought a magazine had exploded somewhere, and the trail of white that it left behind lasted for a long while. With many loves. Ever affectionately, FRANCIS GALTON.

7, WINDSOR TERRACE, THE HOE, PLYMOUTH. *December 20, 1906.*

MY DEAR EDWARD, Best wishes of the season. It will be the shortest day when you get this, and then the year will turn—Hurrah! I am particularly glad you will be on the Advisory Council *re* Agricultural Biology. It will be just the thing you could help so well in, especially when the stage is reached of the Agricultural Farm.

Very amusing and pleasant your Gloucester host's account of Erasmus at the Regent. I heard of his luncheon party there a few days since, from Lucy, and how happy he seemed to be. She too seems at last to be getting strong and happy, and her husband as well.

A friend of mine, Pryor by name, has a collection of old silhouettes, mainly of certain Quaker relatives and their friends including my Grandmother of Duddeston (whose pastel portrait you have) and one of *dear Mrs Schim.**, made at Bath in 1809, according to my Father's note in pencil upon it. She was then an uncommonly handsome woman of 30 odd years with a profile greatly like that of her very promising brother, Uncle Theodore*, who died young of plague at Malta. You naturally do not share my (reserved) admiration for *Mrs Schim.*, for your Mother certainly did not, but she interests me on family grounds, so when I return home I think I shall frame her.

So James Keir Moilliet is buried to-day. Poor Lewis with his twin brother gone and himself blind. Amy Lethbridge is quite well again, after a bad sore throat to begin with. Then she was taken to Weston and got quite well. Eva saw her at Edymead House two days ago, just returned.

Plymouth atmosphere is not enlivening, but I get on well enough by leading an invalid life. Driving is no good, for the ground is very hilly and the ugly suburbs stretch far.

You mentioned that you read *Nature*. Look in to-day's issue at a paragraph, with small diagrams, on how to *cut a cake scientifically*, signed by a certain *F.G.* We have used the plan regularly for at least a fortnight. It suits our modest wants. So you have two bulls! Claverdon Leys will become "Bashan" (I have however no conception what the Biblical "Bulls of Bashan" refer to). I am delighted that you are so fit, so busy and so happy. Loves to you both.

Ever affectionately, FRANCIS GALTON.

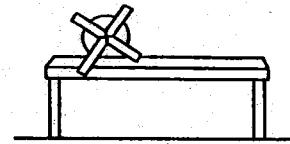
7, WINDSOR TERRACE, THE HOE, PLYMOUTH. *January 17, 1907.*

MY DEAR EDWARD, So glad to hear of your doings, of the house "bursting full of boys and girls" and of the six calves.—Also of the forthcoming wild geese in Wales.—The poor old bank in Steelhouse Lane!!† Nothing endures. One of Bewick's vignettes is of a churchyard on the edge of a cliff that is crumbling into the sea. The havoc has reached so far as to cut a monument in two. The part that remains is inscribed "To the immortal memory of..."; all the rest is gone. I was more sentimental about the little Slaney Street, where there was an Office connected with the bank, which my Father kept up till his death, I think. It had an old copying machine, given him I believe by James Watt its inventor, and which looked not unlike a mangle. A huge thing worked by cross arms. I went with him there on not a few occasions, but never into the big bank house. I wish I could get rid on fair terms of the small remainder of my Duddeston property, for the reason you mention. But after all there is not enough of it left to be risky overmuch. The cistern must now be a pleasure, also the pond.

I am not yet by any means *fit*, having had a week ago another shiver with bed and doctor, but I feel now well cleared out and particularly comfortable in myself, leading at present an invalid life, which I hope will not last for many days longer. I am to take regularly every morning a purgative fizz, and strychnine after meals as a nerve tonic. The prescription seems reasonable. I should greatly like to accept your kind invitation later on, but dare not make any plans yet. I suppose I must stick here till spring sets in. The doctors strongly urge it.

* See our Vol. 1, Plate XXXV.

† See our Vol. 1, Plate XXXII.



Poor Milly Lethbridge has had nearly a fortnight in bed with influenza; Dim* was again sent to bed, I hope only for a short time. Their principal maid has been quite ill, etc., and is gone away for a while to get strong again. I expect Eva back to-morrow, but have urged her to stay on, if good for her head.

This is a season of sad recollections for you. I can hardly think that it is only one year since your Mother's death. Best love to M. L. Tell her that I have learnt one good cooking receipt—viz. not to serve Whittings *boiled* with their tails through their eyes, but to spitchock, take out their bones, and fry them. They are quite good eating in this way. Very like soles and, if possible, better. Ever affectionately, FRANCIS GALTON.

3, HOE PARK TERRACE, PLYMOUTH. February 4, 1907.

MY DEAR EDWARD. What an escape! Don't let the Egyptian sun get into the head, which *may* be tender for a while. I hope you will be able to go, and to enjoy and learn. Also that you may *not* get too much of the March *Khamsin* hot winds. "Khamsin" means "50," = the number of days during which that sometimes detestable wind is apt to blow. Thank you for the newspaper slip which seems to give a fair account so far as it goes.

The news that compound drenches are being well tried is good. In some future time, babies will undergo "suction" at the same time as their baptism, to preserve them from all microbic ills, and will repeat the same at about the age of confirmation.

I am just now at some statistics that might interest you. They are those of a weight-judging competition of the West of England Agricultural Society—800 returns. They show the sort of value possessed by the *Vox Populi*. The distribution of error is curious. Half of those who judged below the average of the whole lot were more than 46 lbs. lower than that average; on the other hand, half of those who judged above the average were more than 28 lbs. above it. So the distribution of error is *skew*. Why it is so, and what the correction should be for skewness, I cannot yet make out, but am busy at it. The average was 11 lbs. wrong.

My "Eugenics" has started on a revised scheme very hopefully. The laboratory is now attached to Karl Pearson's department in University College, and will be well looked after by him and become in all probability important. The staff consists of a Fellow, a Scholar and a Computer, and all statistical work will be rigorous and of the most recent kind. It, in fact, constitutes a new department of Professor K. Pearson's excellent Biometric Laboratory.

All goes on here comfortably though rather monotonously. Presumably you will start (if you go) for Egypt from here. It would be nice if you were to stop a night or so at Plymouth *en route*, but I am sure that you are unlikely to spare time for the purpose. Pray tell me the date of your start that Eva may have a chance of accompanying you on board. I am wholly confined to the house for most days. I expect Eva to go away (for a week) and Milly to take her place, on the 14th. Best love to M. L. Ever affectionately, FRANCIS GALTON.

Archdeacon Bree was very much better two days ago, and out of danger (at Bournemouth). Edward Lethbridge's girl has been very dangerously ill with typhoid. The last news is cheerful.

42, RUTLAND GATE, S.W. March 30, 1907.

DEAREST MILLY. Being alone, I was doubly glad of your letter. Karl Pearson simultaneously sent me a copy of the paper. Seabrooke has written to me, with an added postscript from Eva, to say that a longer letter from her is coming. Probably it will not arrive till after the last outgoing post of to-day. All seems *going on* favourably, but to what *end* who can foretell? Face to face as I now am with solitariness, it seems more endurable, even during illness, than I had feared, so long as servants work happily together. Also it draws me back to old friends, which is a moral gain. I have been busy with an old method of mine, adopted only at long intervals, of *stock-taking* of my own *character*, and grieve to find it has somewhat deteriorated in two particulars. The process may interest you, and if on this occasion I can elaborate it further, it may be worth publishing. Its essence is (1) to catch oneself unawares and to consider carefully the thoughts and moods that were at that moment in the mind, and (2) to note them. The (1) is not difficult at *first*, but after a while it becomes very difficult without independent aid such as a person calling out or a machine striking. (2) requires a good deal

* Pet-name of Miss Amy Lethbridge.

of thought and experiment to make a *logical* classification, and yet a *brief* one, of moods and subjects of thought. I based mine originally on the Ten Commandments (leaving out the 2nd, 3rd and 4th as archaic), but find this division can be much improved on for the present purpose. Thus, it is convenient to have a preliminary division into *vigorous* virtues and vices, and to *subservient* ones. Almost any reasonable system will work fairly well. I use generally two letters; one for the class, the other for the subdivision, with a dash (v') to signify "faint" and an underscore (v) to signify "strong." One does not like to put too much down with pencil or pen. I have hitherto burnt my notes (though they were mostly hieroglyphics), but memorised the results. Where I have deteriorated is firstly in a general *weakening* of the moods—perhaps this is merely the result of age. The second failure is more easily remedied; it is the want of frequent *withdrawal into one's self* and of looking at and directing one's own conduct as if it were that of an alien, together with all that action connotes, such as communion with a higher power. The fact is, I used to *overdo* this, and feeling myself becoming priggish, thought that simple naturalness, for a bout, would be good. But I have overdone this phase too, and must revert to the old one, which it will be grateful now to do. If you have ever attempted anything of this kind, or heard of any one doing so *briefly* (not by gushing out-pourings and self-revelations), do tell me. Ever affectionately, FRANCIS GALTON.

I shall be most interested in your and Fred's Swiss plans. I have been laid up during most of the week with my inflamed and eczematous ear. It is practically well.

42, RUTLAND GATE, S.W. April 11, 1907.

DEAREST MILLY, You will all be most welcome at luncheon (1 h.) to-morrow. I shall be particularly glad to make Miss Trail's acquaintance. Your tidings concerning Bob are very encouraging and will lighten the skirts of the hitherto terribly gloomy sky. Enclosed I return the beautiful letter of your monastic friend. Thank you much for letting me see it. No creed can compare with Christianity in its conviction of an all-pervading *love*.

Stoicism and most pantheisms are cold and cheerless for the want of it.

Ever most affectionately, FRANCIS GALTON.

I have not *yet* heard from Eva, but probably shall do so either by a late post to-night or early to-morrow.

42, RUTLAND GATE, S.W. May 29, 1907.

DEAREST MILLY, Eva's address is Moor House, Ringmer, Sussex. I had a letter from her yesterday—short, but pleasant. George Butler leaves to-morrow. Lucy Studdy does not come, as her maid's "shingles" has now attacked the leg and made stairs impracticable for her. She goes into lodgings. I am steadily recovering from the effects of an awkward fall on to the floor of my bedroom Saturday-Sunday night. It was about midnight, and getting up I rested on the edge of a three-legged table with "invalid comforts" on it. It tipped over and came down with a clatter of crockery, and I fell with it, heavily, on to the floor. I was so bruised and battered that I had not strength to lift myself up, so there I lay helpless till 6½ a.m. when the united forces of the awakened household lifted me, in no small pain, on to my bed. Things are mending one by one, and I can already almost get out of or into bed unaided. Hibbert, the nurse-housekeeper, sleeps in my dressing-room, and Giff and she are most anxious to help.

So my Oxford lecture, "to be delivered by *myself*," is abandoned. I have sent everything prepared for printing to the authorities there. Excuse bad writing, my hand is still sprained. Here is an *Art of Travel* experience. It has twice occurred to me for want of better accommodation to sleep on a billiard table. I now find that an oak floor is less hard, also that it carries off the body heat less quickly. I dare not make any plans yet, but if improvement continues to-morrow, the doctor thinks I may. As it stands I should go to Claverdon for a few nights on the 7th. Love to Amy. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. June 6, 1907.

DEAREST MILLY, I do trust that you and Amy are now in a fit state for the calm and serenity that Italy can give. All my earliest and pleasantest recollections of the Italian lakes are associated with Baveno. How I used to watch the boatmen manipulating the heavy slabs of granite and getting them on rollers into boats, and there used to be simple merry-makings

at night, all very picturesque and very Italian. My lecture* went off *well* yesterday. Arthur Galton delivered it effectively, as I am assured, and there was a large and attentive audience. I was utterly unfit for the exertion even of going to Oxford. All pains from the fall have wholly gone, but bronchitis remains, ever on the watch to become bad on the slightest imprudence. Cameron Galton made a brief call this morning. Lucy Studdy goes to-morrow to stay a few days with Eva. I shall be quite sorry to lose Lucy, she has exerted herself in every way to be pleasant and helpful, and allowed me to be quiet as long and often as I wished. Eva, according to Seabrooke, is better physically than she has ever known her, but complains of the headaches. I must whip up friends to keep me company occasionally, when Lucy is gone. I am so much stronger that I hope to be able now and then to get to the club all by myself, or at all events with Gifi to help me in. Mrs Hibbert seems to do very well and the cook is excellent. Gifi highly approves. I saw your post-card of Baveno, sent last Monday. Eva sent it to Lucy Studdy who gave it me. Is all that *white* on the hill behind and on those in front, snow or bared granite? I wonder if they spear fish by night at this time of year? The lights in the boats are so pretty when they do. Writing rather tires me, so I will leave off here. With most affectionate good wishes to you all. Ever yours, FRANCIS GALTON.

When you next write, tell me how Bob goes on. Lucy would, I am sure, send her best love if she were in now. You shall have a copy of the Lecture as soon as I receive any.

THE YAFFLES, HINDHEAD, HASLEMERE, S.O. August 25, 1907.

DEAREST MILLY, You are going through a sad and trying time and I greatly sympathise with you. It will be difficult for you and Amy to get as much rest as you want, the home duties being so many and so various and the terrible memories so obsessing. All goes well here and promises well for the future, thus far. The house and grounds are singularly agreeable and we have old friends within reach. Karl Pearson came on a bicycle ($2\frac{1}{2}$ hours each way!) to lunch yesterday and we had much pleasant talk together. Violet Macintyre† leaves us on Tuesday, I am sorry to say; she sails for America on Wednesday to see her husband's relations there. After that, she returns to England to sail by steamer to Penang. It is as short and cheaper and pleasanter than going there by way of San Francisco. I shall be very sorry to leave this place and may perhaps take another house somewhere hereabouts for the end of September and early October. Our tenancy is out on September 12. We had a most interesting afternoon with Mrs Watts, the widow of the great artist. She has a large collection of his works in a studio to which the public are admitted, and there is a beautiful memorial chapel designed by herself. The spirit of his works is so lofty that one feels the studio to be a chapel. Longfellow's introduction to his translation of Dante quite expresses my feelings and rang in my ears all the time. As she wrote me a very nice letter, I have ventured to transcribe it from memory and to send it you. With Eva's best love as well as mine to you all.

Ever affectionately, FRANCIS GALTON.

THE YAFFLES, HINDHEAD, HASLEMERE, S.O. August 30, 1907.

DEAR SCHUSTER, Part III of the Eugenics publications has just reached me and I have read your excellent memoir in it with great interest. Also I have heard good news of you from Professor Pearson who bicycled to this pretty place last Saturday. I am here till September 12, and then the owner of the house returns, and I must go, with much regret. Miss Elderton seems to be doing an immense deal of good work at the Laboratory. What a nice and capable lady she is. Very sincerely yours, FRANCIS GALTON.

WILLSHAM, BRENDON, NEAR LYNTON, N. DEVON. September 2, 1907.

DEAR MR GALTON, Very many thanks for your kind letter; it gives me very great satisfaction that you approved of the memoir. I seem to have been very lucky in the time of its appearance, since the University has come to the fore through its educational and pecuniary deficiencies and there is no parliament sitting to fill the papers.

* The Herbert Spencer Lecture: see our Vol. III^A, p. 317 *et seq.*

† Evelyne Biggs' half-sister.

Miss Elderton has certainly been a remarkable success at the Eugenics Office; but I think her marvellous energy and quickness to learn anything new would have enabled her to succeed at anything she undertook.

Hoping that you are in good health, and have not been too much troubled with bronchitis lately. Believe me, yours very sincerely, EDGAR SCHUSTER.

QUEDLEY, HASLEMERE. *September 30, 1907.*

DEAREST MILLY, I was remiss yesterday in letting the Sunday post-time pass, without writing to you. A lady who says that she knows you, Miss Bennett (? as to number of *n*'s and *t*'s), has been staying with our friends here, the Lionel Tollemaches, and returns to Bovey to-morrow. She will tell you about these surroundings and ourselves. I continue to think the choice of this place a wise one. The neighbourhood is rich in nice people and there are numerous drives, each different from the other. The house too is convenient in itself, very much so in its position, and is growing pretty inside under Eva's artistic touch. I have been occupying all my novel-reading hours with reading *Sir Charles Grandison*, and am ashamed rather to say how much I am carried on with it. Richardson has a remarkable power of keeping his characters distinct and vivid before the reader. What an enormous length his novels are! My edition of *Sir Charles Grandison* is in four closely-printed, large 8vo volumes, and *Clarissa Harlowe* is I believe about the same length. Violet Macintyre arrives in England to-day from America. Her baby is with Walter Biggs. She goes straight to Constance Pearson. The baby vastly improved while here, hardly any of her fits of *yelling*, of which she had many at first when with her former nurse. Poor little thing; her look-out in life is not a happy one, to all appearance. If Violet finds a good ayah to take her back, it will be a great gain to the child. I trust your own many domestic troubles are dispersing. Has Guy actually begun his new work? How is Amy? Where is Hugh? Is Bob better? We had a pleasant visit from my old and rather invalided friend, Lady Welby, who motored here for lunch all the way from Harrow and back again. She is a wonderful woman in many ways, and of wide experience in life, beginning as a pet godchild of Queen Victoria, and for the last ten or more years steeped in metaphysics! It is so pleasant to meet Mrs Tyndall and to talk of old times, as for the most part: "All, all are gone, the old familiar faces." Best loves to all. Ever affectionately, FRANCIS GALTON.

I have not yet found out the meaning of Quedley.

QUEDLEY, HASLEMERE. *November 2, 1907.*

MY DEAR GEORGE DARWIN, I fully sympathise with H. M. Taylor's [blind Fellow of Trinity*] proposal [for the blind*] and gladly send £2 to help it.

But my strongest sympathy is with the deaf. Had I a fairy godmother, I would petition that every experimental physicist should be made as deaf as I am, until they had discovered a good ear trumpet, and then that as many fairy-gifts should be heaped on the discoverer as should exceed all he could desire, as well as the thanks and gratitude of all whom he had relieved!

I am spending most of the winter here in hopes of evading much bronchitis and asthma. The place promises well.

Miss Biggs is not *quite* recovered. But now she is in a healthy position, among old friends who love and break-in horses, and she is busy and hard working all day, with little time to worry herself. You will be particularly interested just now at Charles' *début* and progress. All good luck to him. Affectionately yours, FRANCIS GALTON.

To SIR GEORGE DARWIN, K.C.B.

QUEDLEY, HASLEMERE. *November 25, 1907.*

DEAREST MILLY, You will be most welcome here on or about January 7, and for as long as you like. Eva will be pleased too, very pleased, to see you. She does not now seem to care about going clean away, but I am glad she should have variety, for I unaided can be but a tedious companion, and next to no companion at all out-of-doors. What you say about not requiring Charlotte, removes the only possible difficulty. I fear *she* would be impossible. Matters go on as smoothly now, though hardly so securely, as in old times. I have had a little bronchitic warning but nothing more, no fever at all, and sleep like a baby and eat like a boy. Methuen,

* Interpolations by Sir George Darwin.

the publisher, or rather his man of business, has written me a "fetching" letter asking if he might have my autobiography for publication. A curious double coincidence occurred, (1) Methuen himself, who has been seriously ill after some operation, lives here, though I do not yet know him, and (2) Frank Carter, the artist who copied my picture for Trinity College, was staying here for the week-end, and was engaged to lunch with Methuen (a connection of his) last Sunday. So I made him a sort of go-between. Briefly, I am disposed to attempt the job, making no further terms than the usual half-profits and an assurance that the book will be handsomely brought out and that I am liberally allowed to correct proofs. Also to have some simple illustrations and perhaps Furse's portrait. This will keep my hands very full indeed for months to come. Have you any old diaries or letters or documents that would help as to ancient dates? Now that Bessy and Emma are gone I feel singularly at sea about much. I have Louisa's diaries, but they refer little to myself; however, they should be very helpful. What a curious account you send of Guy's "dowsing." Edward Wheeler had a like experience, but *his* dowser proved unsuccessful. There is a firm of dowsers. If I belonged to it and believed in it, I should construct a



paved yard with waterpipes below and stop-cocks (x), any of which could be turned off or on, and should test people by it.

Ever affectionately, FRANCIS GALTON.

QUEDLEY, HASLEMERE. December 2, 1907.

DEAREST MILLY, The Bogatzki*, which I return, has given just the events I wanted at this moment. I got between 70 and 80 dates from it, many of which help me much. The search into one's memory opens so many doors of the past that are usually passed by unregarded. A strange bygone experience (which I published) testified to the same thing. It was that when capturing, as it were, the first associations connected with any word the moment it was presented, they were often connected with some long past and habitually forgotten experience. I am working at different periods of my life in turn and have done a lot already about my *medical epoch*. How the ghosts arise! What touching mementoes there are in Bogatzki's pages. So many by Aunt Brewin referring to 1700 odd. I can't, of course, decipher most of her initials, but some of them I can.

A man with a much more horrid name, which I can't venture to reproduce from memory, wrote to me yesterday asking permission to translate my recent "Herbert Spencer Lecture" into *Hungarian*, for his *Sociological Review*, of which he enclosed a prospectus. They do these things well in Buda-Pest. An old friend of mine, Kőrösi, lately dead, was the head of the Statistical Department there and wrote valuable memoirs. The numerous accents they use are to me unintelligible. I hope I have put them right in Kőrösi's name. It was pronounced Keresi. We have at last been visited by a "Yaffle," a green woodpecker. The old gardener had never seen one in this garden before, though they are common (they say) among the woods higher up. There were plenty about when our previous house "Yaffles" was built, but they disappeared *after* it was built and named. Two starlings are on the lawn now, picking up the crumbs I threw out for the Yaffle. How quickly they gobble them up. Our next neighbour is a famous *etcher*. Some beautiful specimens of his doing are now on exhibition in London. It has been much pleasure to make his acquaintance. They are Mr and Mrs Fritton, with an uncommonly attractive 16-year-old daughter, still at school. All goes on well here. You must be much grieved about Mrs Northy. How does Guy get on with his motor? Any further news from Africa? Many loves. Ever affectionately, FRANCIS GALTON.

Address now: 42, Rutland Gate, S.W.

February 9, 1908.

DEAR MISS ELDETON, The tidings in your letter about the Eugenics Education Society † pain me much. Thank you greatly for sending them. I have written to Dr Slaughter withdrawing an offer of help that I made in response to an exceedingly sober and well-written letter from him, and said that I cannot consent to be connected with it at present. It is very sad. We are turned out of this house, "Quedley," for a fortnight by a damaged kitchen boiler, but letters will be forwarded either from here or from London. I hope when the spring is advanced and the place around grows beautiful, to tempt you down for a week-end. I think you would enjoy it then. Very faithfully yours, FRANCIS GALTON.

* A work by the well-known pietist, used by the originally Quaker Galtons like a family bible for personal records.

† See Note at the end of this Chapter.

Address now : 42, Rutland Gate, S.W.

August 29, 1908.

DEAREST MILLY, This will reach you in, or *via*, your new home. I look forward to your next letter, anxious to hear that you are all at length settled at Shirrell House, but we go home to-morrow for a bit. Hubert Galton had asked us and we had accepted to go to Hadzor, but his wife is unhappily ill again, so that is off. We shall have some house-hunting to do from London on fair days. Otherwise I think I shall be chiefly in London *all* September. The recent storms and chilly wave of air make me less adventurous-minded, and a study of Bradshaw reminds me what a long journey it is from London to Minehead, so I fear that running down there is and will remain a dream till winter is overpast. How well and cheaply the Germans illustrate books and newspapers ! I post you one—don't return it please—in which I come in on page 178. I don't know why on earth they include me, for I take no part in the Geographical Congress, but the shape of the little photo was convenient to them. Proof revising and index making is tedious, but I am nearing the end of my book at last. It cannot, I should think, be brought out before mid-October, but that is wholly in the hands of my publisher, who has first to bring out a new book by Marie Corelli ! Eva went yesterday to the Isle of Wight, and came back disillusioned as to Ventnor and the like being suitable for us next winter, as I felt sure she would. I enclose one of the new programmes of the Eugenics Education Society, which may possibly interest you. If you can sow it (like a seed) in any likely place to meet with a favourable response, please do so. I am busy on a paper wherewith to open its proceedings next October, and find it very hard to steer between the *Scylla* of mere platitudes and the *Charybdis* of disputable details. If there proves to be time enough, I will venture to send you a typed copy for suggestions, if I may ? We have had squally weather with fine intervals. To-day it is as calm as a cat sleeping in a comfortable arm-chair after a night of fighting and caterwaulings. Ever affectionately, FRANCIS GALTON.

September 14, 1908. 42, RUTLAND GATE, S.W., but please address next letter to me at Claverdon Leys, Warwick, where we go on Wednesday ; I for a week.

DEAREST MILLY, Your painful attack is grievous. One of my very few quasi-superstitions is that change into a new house spells illness for someone. In this case, you are the sufferer and Amy has escaped. What pleasant news you give of Guy's appointment. How many years does it last ? and what pay does he get ? I am so extremely ignorant about army matters. I suppose the "Brigade" is one of the new territorial army ?

Adèle Bree is going on rightly but though the operation was not a serious one, the healing, as I understand, is a little delayed. Eva saw her for a few minutes one day last week, going down for the purpose, and returned quite happy about her. The Archdeacon too is quite well. So the house proves quite a success. I am so glad—also, that you do not feel at all cramped in it. The desideratum in life is to have all that you really want and as few superfluities as may be, and your house appears to fulfil that desideratum. The Roman Catholic Congress seems to have been uncommonly well managed by its officials. Eva has been to two or three services, and we both went together to see the school-children's long procession. I don't care much for great length in one. A sample is to me quite as good. Did you ever go to an oil-cloth shop, where they drop a box with reflectors on to a pattern, say one foot square, and at once the pattern is reflected and re-reflected into a great surface. One or two of these children, or of Eton boys, who outwardly are as much alike as peas, might be put under one of these boxes and, *hey presto*, they would grow into a multitude. But what a blunder the Home Secretary made in first permitting the procession for yesterday and then retracting it. The Premier shares the blame. I should have thought the question quite deserving of having been made a Cabinet one. The papers will shortly come in and we shall see what they say. They have just come, and say what I thought they would say. My personal news of this week is largely connected with dentists, tailors and hosiers, of no interest to others. Eva and I went to Methuen's and arranged about the cover for the book. Smooth green cloth with a flat gold band. I have been very busy over a small matter which requires care, viz. a brief opening address to the Eugenics Education Society. It has been typed and then much cut up by the skilled and disembowell- ed form, but made much more suitable thereby. It is a delight to me to put myself again to school, as it were, under a competent critic. Generally my friends are diffident and won't *slash*, but I have two excellent friends who happily feel no compunction in performing that operation, and I learn much thereby. Best loves. Ever affectionately, FRANCIS GALTON.



42, RUTLAND GATE, S.W. *September 27, 1908.*

DEAREST MILLY, This is a prompt answer; Ravenscourt seems quite a success. Enclosed is one of the prospectuses of my book, which I *hope* may be published next Saturday. A small misunderstanding of the printer threw it back for a while. Adèle Bree is rapidly getting well and has no dread, I believe. The removal was an easy matter, though the healing was prolonged.—So you have to do with one of the “Feeble-Minded” of whom so much has been brought to light by the Royal Commission. In these border-line cases it is *most* difficult to know how to act. I know the Porlock Hill, perhaps it was then not quite so steep as you drew it, but was perilous-looking, and there were beautiful views. Motors are certainly great comforts, and bring far-off places near to one. The London taxi-cabs have a rare time of it in the afternoons; every one of them in the neighbouring stand being always taken. Eva is off to-day to Malvern to stay with Mrs Keir Moilliet and to bicycle on Monday to Lewis M.'s. She returns on Tuesday. Give my love to all of yours. You will be a large party now, if Guy has returned from Exeter. I am about now to be trundled in my sister Bessy's bath-chair into the park, which I find very pleasant. Sometimes Mrs Simmonds, sometimes Gifi, pushes it, and I have lost all sense of oddity in the matter and enjoy it without drawback. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *October 10, 1908.*

DEAREST MILLY, You are indeed enthusiastic. The book seems successful, as a second edition of it is being printed; but I find that the first edition was only 750 copies. Still, it shows that the book has already paid its way, and my publisher writes prettily and congratulatorily (is there such a word?).

The idea of your troubling to join the Eugenics Education Society! I never meant to cajole you into it. Still, it is not a bad thing to do, and a few of us are taking pains about it. I shall understand “the ropes” better after next Wednesday's meeting. The absurd part of it is that the proper President of it, Sir James Crichton-Browne, has wholly absented himself for ever so long, and won't answer the letters of the Secretary to him. It was this that *obliged* me to take the lead, which I did not at all want to do. It is a funny thing that none of us can comprehend; Sir J.C.-B. is quite a pleasant man and seemed originally keen for the work. Personally I like him much. He sent much of value to Charles Darwin, who appreciated it. It did seem extraordinary in those far back days, that Crichton-Browne, then quite a young man and looking still younger, should have the control and mastery over the biggest lunatic asylum in England. He looked more like a man whom the hostess of a ball would introduce to partners lest he should be too diffident to ask them. Your gardening must be a great pleasure and matters of storage room must be difficult to solve. The Gibbons have built a cheap studio by their cottage. I sent them a perambulator and now the poor child is *dead*! How they will hate the sight of the little carriage! I pity them much. Best loves. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *October 17, 1908.*

DEAREST MILLY, It would be amusing if the next year's camp in the neighbourhood of Dorchester should be placed on “Galton Heath.” There is a wide extent of open land there and the high Downs are within marching distance. But how the midges bit me there, one summer! You must be full of gardening and hopes of flowers in the Spring; I now see flowers in shop windows here, that is all. My book is well reviewed thus far by most of the leading papers, but not yet by the *Times*, who kindly gave half a column to my paper at the Eugenics Education Society. It will be printed in full in the next (?) *Nature*, for they have sent it in proof to me to correct. You shall have a copy when it comes out. I contrived to read it myself and got through it creditably to a rather large audience, but was tired and bronchitic in consequence. All right now. Next Monday (to-morrow) week, 26th, we go to “The Meadows, Brockham Green, Dorking,” so I shall get *here* your usual Friday letter, but thenceforward the address will be as above. How I *hate* the thoughts of the coming winter. Eva went yesterday to see Mrs Gibbon, who is very sad. My old friend, Lady Pelly, has just undergone a very serious operation, I know not what. She is doing fairly well.

I had to break off, owing to the earlier-than-expected arrival of a Bordighera friend, Mr Bicknell, to stay with us. Such an interesting man. He is the scientific and literary soul of Bordighera and a good botanist and artist. He gave a small museum with a good sized meeting

room and a beautiful little garden round it, to the place. His religious life has been in rough waters. At first a clergyman, then throwing off what he felt to be the trammels of orthodoxy, and now calm and sympathetic to all creeds. Just after my own heart! Best loves to you all.

Ever affectionately, FRANCIS GALTON.

I am rejoiced to find that my book pleases the Butler family. It was a difficult task to write about them without *gush* and yet appreciatively.

42, RUTLAND GATE, S.W. *October 24, 1908.*

DEAREST MILLY, Henceforth please address to me at "The Meadows, Brockham Green, Betchworth S.O., Surrey." This is the correct address of Brockham Green according to the Postal Guide; "Dorking" does, but it involves delay. We are packed up ready to go on Monday, taking such a lot of things, but four months is a long absence. How wonderfully well you get on with birds. I take bread with me in my arm-chair into the park, and feed pigeons and sparrows, but they are tame and easily attracted. I send a *Nature* herewith. The Address begins on p. 645. The *book* continues to be reviewed very favourably. The *Times* had a careful review in its *Literary Supplement* last Friday. Possibly some of the weeklies may be down on it to-day. I must go to the Club to see. As soon as we get to the "Meadows" I shall recommence the work I was at when with you at Edymead, about "Resemblance," and expect to be at it a good deal this winter, which, with some Eugenics, will keep me busy most of the time. How very bright much of Fräulein Schmidt is. It is rather too protracted, so I skipped a good deal and read the end. How those of this German middle-class who read her must hate her. What a handsome gentlemanly-looking man, judging from his portrait in the *Graphic*, the fourth son of the Kaiser must be, who is just married. This coming cold is formidable. Fortunately the "Meadows" is particularly well supplied with warm water and various cosinesses. Did you happen to hear of the military mayor of some small town in France and his interpretation of the order from his Governor to make all ready for an impending attack of cholera? The Sanitary Inspector called to see what he had done. It was confined to digging a big trench for the expected dead people. He was highly pleased with his work, saying of the cholera, "Je l'attends, pied ferme." I am sorry and glad, both at the same time, at leaving London. Love to Amy and to Guy, if he is with you. Ever affectionately, FRANCIS GALTON.

Eva sends her love also. She is very well, occupied and happy.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *November 1, 1908.*

MY DEAR LEONARD DARWIN, Your letter was grateful. We are planted here for the winter. In my *Memories*, p. 204, I say something about Speke's memorial in Kensington Gardens, and I am now sending a letter to Keltie which I have asked him to lay before Council, asking that a Committee may be appointed to consider a report on the question. If you think well of the idea, perhaps you will help its furtherance. Will you?

Re Sven Hedin. He arrived at Simla in *tatters* and was made the guest there of my wife's nephew, Monty Butler, who clothed him out of his own wardrobe and made him presentable at once! Very sincerely yours, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *November 6, 1908.*

MY DEAR LEONARD DARWIN, You have indeed appointed a powerful Committee in which the artistic taste of the Harry Johnstons will be most helpful. As regards funds, I am prepared to give quite £100, as the object has long been a hobby of mine, if the design seems to me appropriate, and not too grand, and if I can do it anonymously, without ostentation. Your suasion about my giving a copy of my book to the R.G.S. is irresistible and I have instructed Methuen (the publisher) to do so, as soon as the 2nd edition is published.

Ever sincerely yours, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *December 7, 1908.*

DEAREST MILLY, I trust that by now Edymead is *quite* off your hands for at least 3½ years. You will all be desirous to hear the doctor's report of Bob. Lady Galton is again downstairs, but I should fear not permanently recovered. We heard from Evelyn Cunliffe, who returns to her home near here to-day.

I have a donkey-cart and donkey lent me for two months and am just returned from a four-mile, in all, expedition. The donkey is an aged pet, much accustomed to have her own way. Still she pulls. I have no news. Life goes on monotonously and pleasantly and novels, etc., are read. A good deal in the Eugenics line is going on this week. Miss Elderton, the very capable Research Scholar, reads a memoir on Cousin Marriages. She has been working at 2000 of them for some months with the usual result that their ill-effects are statistically insignificant. When observed, they seem due to both cousins having the *same* bad quality. But I have not seen her paper yet. She is such a zealous, capable, nice girl, and is now familiar with the higher statistics. Her brother is a first-rate actuary too, which is all in the same way. I take it that the actuaries are, as a class, the hardest headed men in the community. The problems they have to deal with are sometimes very stiff ones. Tell me of any good book you know of, to get from the *Times* library to read. Best loves to you all from us both.

Ever affectionately yours, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *December 14, 1908.*

DEAREST MILLY, I have nothing to tell. My life is largely taken up with donkey drives and novel readings. At this moment with *Waverley*, just previously with *Guy Mannering*. Eva went up to some Eugenics gatherings last week and reports enthusiasm in many quarters. Also some good work is being done. I have just got (from the *Times* library) Waldstein's new book about Herculaneum, which gives, to most persons, a new view. It is not embedded in lava. No lava came near the place until long after its burial, and then only in patches which afford useful covering to excavators. He, Waldstein, is very sanguine, and has been pushing forward international help with rather too much zeal, so that the Italians are made jealous. However, they are going to begin and have voted money. We, I in the donkey-chair, called to-day on some people. By a strange coincidence the daughter-in-law, Mrs A'Court, of the (blind) owner, Mrs A'Court senior, of the chair and of the donkey, Jemima, was staying there. Now Jemima has been petted all her life and the meeting of the two old friends was touching. Jemima is turned out into our meadow when the weather is suitable. She follows Eva like a dog through the garden on the way to it, and comes up and does the same conversely, when wanted for the carriage. Odd creatures donkeys are,—so near to perfection and yet short of it. With best loves. Ever affectionately, FRANCIS GALTON.

I am too late for the post to-day.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *December 19, 1908.*

DEAREST MILLY, This will be my Xmas letter to you, with all good wishes to all of you. You tell me many things, showing how occupied you must be at this time. On the contrary, I am sadly un-Xmaslike in arrangements. Lucy and Cameron Galton come down to us on Friday for a few nights; that is all the family gathering possible to me here. We asked Alice Corbett for Xmas but she was engaged. Also, three days ago we lunched and spent some time at Henrietta Litchfield's (1½ hours' drive off) to meet Frank Darwin, his daughter and Mr Cornford to whom she is engaged. It was all very pleasant. She (the daughter) managed the Comus masque at Cambridge, but did not act in it. He did. He is a Fellow of Trinity College. You say I have a kindly heart towards donkeys. You recollect perhaps Coleridge's not very wise ode to a *young ass* and Byron's comment on it: "A *fellow-feeling* makes us wondrous kind." An ass is certainly a mysterious animal, and the continual and usually independent movements of his long ears testify to the busy thoughts or perceptions of the beast. But its obstinacy! What a martyr an ass would make to any cause that it pleased to favour. I write this by Saturday's evening post and wonder whether it will reach you Sunday, Monday or even Tuesday. All depends on the route it has to take. I am puzzling all day, day after day, over an apparently simple problem in my favourite statistics, but can't wholly satisfy myself even yet in explaining it on paper.

Ever affectionately, with love to you all in which Eva joins, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *December 27, 1908.*

MY DEAR SIR GEORGE DARWIN, Thanks for your letter—I am so glad you like the book, and am grateful for the corrections.

It is, alas, impossible for me to attend the Darwin Celebration. I could not do it with safety, if at all, even in mid-summer. I get about partly in a donkey-chair. The movements of the animal's ears in connection with his presumed perceptions and thoughts are an unfailing object of interest.

My brother (simply Erasmus Galton, Leamington; he has a post-bag there) would I am sure be highly flattered by an invitation, but I am still more sure that he would be unable to accept it. He suffers from an old man's ailment that keeps him always in the immediate neighbourhood of his home. But he *reverences* your father's memory,—if possible, as much as I do.

I am pulling through the winter fairly well thus far, thanks to the pure air of these parts. I see in a *Times* article, that they seem to have discovered an anti-toxin to bronchitis. It would be indeed a blessing to me.

I grieve to hear of your bad knee, one limb out of two cannot be easily spared. A centipede would not mind it.

Love to you all—not least to Charles. I would have sent him the book, had I foreseen that it might have been liked. One hates so to intrude. I hope his mathematics continue to prosper.

Ever affectionately yours, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *January 7, 1909.*

DEAR COUSIN GEORGE DARWIN, This is I think the correctest commencement of a letter!

Thanks for your letter in the *Times*, standing up for me. I only found it out this morning by reading the replies by Sir H. Cotton and Pollaky.

In my *Finger-Prints* I translated Purkenje, having got his exceedingly scarce pamphlet with great difficulty, and through a curious coincidence. As to Sir Wm. Herschel I have acknowledged my debt to him in print over and over again, and dedicated my *Finger-Print Directory* to him. He however did none of the three things that (as you quote from me) are essential preliminaries. Sir H. Cotton is I think mistaken in saying that Sir Edward Henry had organised the method in India before he had visited my laboratory. He *had* then organised the *Bertillon* system in India with great care, but found it a failure there. But I shall not bother to write to the *Times* unless Sir E. Henry himself should write what seems to require an answer.

Your son Charles lunched here to-day. It was *very* pleasant seeing him, so bright and capable-looking. Few will be more interested on his behalf next June than myself. He tells me you have that painful malady, a gouty knee. I once had one which ultimately got quite well, and speedily, though it hurt badly at the time; I never felt better and happier than when ill with it. I suppose the gouty humours drained away mischief. That active man, Sir John Evans, had it also, badly, and I think more than once, but got quite well. Lord Avebury, who as you know is of the goutiest stock, told me that he had tried all diets, but the advice that suited him best was "Eat whatever you like but only a *little of it*"! Small quantity rather than good quality. This will reach you *via* Cambridge. Affectionately yours, FRANCIS GALTON.

To PROFESSOR SIR GEORGE DARWIN, K.C.B.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *January 12, 1909.*

DEAREST MILLY, I have been somewhat bothered and busy and cannot recollect whether I did or did not write to you on Saturday. If I did, excuse some repetition. You must feel quiet after the departure of two such restless though amusing guests, besides that of your own son. Quietude prevails here. Violet came two or three days ago for a week. My bother lay in newspaper letters declaring that my share in the Finger-Print System was very small, and it was indeed disregarded in a *Times* notice. Thereupon G. Darwin wrote a letter on my behalf, which led authorities (from India), on the other side, to write. It seemed at last necessary that I should say my say, which I have done in a longish letter to the *Times* which (if they insert it) will probably appear to-morrow. It gave me trouble to refer to past things, and to write

in a way that shall not irritate but be conclusive. I have done my best, and I hate newspaper controversy. There is really some spring now in the air, and a snowdrop in the garden, but much that is nasty may happen before spring comes. I suppose your home will be in much beauty even before May. How you will all enjoy it. The account of Guy's motor expenses is very interesting. I see that much effort is being now made to produce small motors at small cost, that will travel at a moderate pace and be good machines. Being one's own chauffeur greatly facilitates matters. My loaned donkey grows lazier and lazier, and more caressing at the same time. If she was not so old, and so prized by her owner, and if neither Eva nor other humanitarian persons saw me, I should make her "taste stick." Do you know that "walloping" is derived from the names of the two (?) Generals or Admirals (?) who were ancestors of Lord Portsmouth, and who *walloped* the enemies of England? Best loves.

Ever affectionately, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *January 17, 1909.*

DEAREST MILLY, As to that newspaper correspondence, I enclose my reply of which I have *one* duplicate; please therefore return it when you next write. It is in answer to very positive assertions by two men of Anglo-Indian weight, who ought to have informed themselves more exactly when they wrote. I purposely wrote as civilly as possible. Whether more will follow, I know not. Also, I enclose a short letter of mine in this week's *Nature*, on quite another subject, "Sequestered Church Property," which may interest Amy. It arose through Eva's inclination to believe in the supposed curse. Please let me have this back too, when next you write. What interests me the most in this little inquiry is that the average tenure of landed property in England is between 25 and 26 years. Yesterday I had a long letter from Harcourt Butler, from India, enthusiastic about the finger-print system. He has indeed succeeded in life, being now Foreign Secretary to the Government of India, though still young. How responsibility brings out character. It seems to have done so with Signorina Cotta. I pity you with your fire-places. You may recollect my own troubles in Rutland Gate many years ago about the kitchen chimney, when I called in an advertising expert who spoke like an oracle: "Sir, I am a practical man and can assure you that all that is wanted is to enlarge the opening of the chimney pot." I allowed him to try, and the chimney smoked as badly, if not worse than before. Then I called in a still greater expert and he began just as the other, "Sir, I am a practical man and can assure you that all that is wanted is to constrict the aperture of the chimney pot." I think that plan also was tried. Anyhow a much more intelligible cause of the fault suggested itself and *that* was remedied and all went well. If you could remember, as I do, my dear Sister Adèle, your mother, long before you were born, you would probably have associated her as I often do with the fire-place of her bedroom in Lansdowne Place, which had two hobs, on one of which a kettle always stood most conveniently at hand.

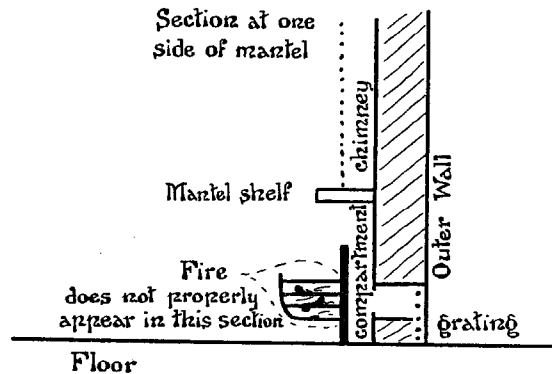
Your ants must be a great interest. Do you yet know the features of any one of them? I see that Guy's motor account works out at a trifle under 3*d.* a mile, *exclusive* of depreciation of the value of the motor. That ought to be included, but I have not a notion of what it is—somewhere between 15 and 20 per cent. of its original cost, I suppose, but *quere*. Eva is gone for two nights to London. Lady Galton is very ill but not worse, and with no hope of ultimate recovery, for it is senile gangrene. Ever affectionately, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *January 31, 1909.*

DEAREST MILLY, Poor Erasmus! He is so very stoical. When he felt "something give" as he was about to enter the tram and fell on the road, the first thing he said to those who picked him up was, "It's all arranged, and mind I'm to be cremated"! I hear that he is as free from pain and as comfortable as may be, but that the broken bone can never heal, so all his habitual walks and independencies must end. I am extremely sorry for him. He somehow seems to me to have failed to get as much interest and "go" in life as his circumstances might have given him. Thanks for returning the newspaper cutting. Sir W. Herschel wrote subsequently a very nice letter to the *Times*, which I was very glad of, for he of all men can speak out best on the early stages of finger-prints in India.

Why don't you try Charles Darwin's perfectly successful plan of warming your room? The air enters through the wall, behind the fire-grate, into a compartment closed in front and top,

at the back of the grate, and issues warmed underneath the mantel-shelf, *on either side of it*, above its jambs. Campbell (of Italy) did the same to a summer-house in Niddry Lodge. Both were perfectly successful. Some fellow took out a patent, but spoilt the idea. He made it "decorative" and it acted badly. You, of course, can have anything you like set up for your



own use, but the patent laws may prevent your *selling* similar things to friends. I have not heard very lately from the Butlers... I expect a long letter from Frank Butler in a few days... Miss Elderton, of the Eugenics Laboratory, is staying with us for this week-end. She is a bright capable girl, and does her work excellently. I have not seen Evelyn Cunliffe* since her mother's death and doubt if she has yet returned home.

Ever affectionately, FRANCIS GALTON.

My section of the fire-place is vile, but I think you and Amy will understand it and could make a cardboard model for consultation with your builder.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *January 31, 1909.*

MY DEAR LUCY, Thanks for letter and enclosure of Gussie's which I return. Poor Erasmus! How stoical and how characteristic! The effects of the accident will take much pleasure out of his life of the sort he is accustomed to, but will I daresay lead to some compensations such as invalids learn to enjoy, as being taken care of.

I have intended to write to ask whether you would care to read, what to me is very interesting, the Journal kept by Sir Francis Darwin of his travels in Spain, Greece and Asia Minor, the first part in company with *Theodore Galton* †. It has been copied clearly in a limp quarto MS. book by Mrs Fellowes, a daughter of Mrs Oldenshaw, who has lent it to me. We are writing to her for permission to send it you. I was pleased to find confirmation of the fact that Dean Burgess of anti-Revised-Version notoriety *did* meet them abroad. There is not a word about eastern travel in his published life, but my recollection seemed certain that it was he, who spoke to me most appreciatively of Uncle Theodore at an Oxford dinner where I sat next to him. He thought him a man of rare promise, as so many others seem to have done. The pluck of Sir F. D. and of Th. G. was amazing. They travelled during most troublous times, viz. about 1809—brigands, pirates, and murderers everywhere.

Keir Moilliet's widow ‡, her son Hubert and a daughter come to us to tea to-day. They are come to stay for a few days with a neighbouring relative of theirs, Miss Townshend. Is it not a pleasure that one more winter month has passed by? You both will get out soon I hope. I too have been much kept in by the weather. It seems that your foxes are not.

Ever affectionately, FRANCIS GALTON.

* Elder daughter of Sir Douglas and Lady Galton.

† See Vol. I, pp. 22-23. This diary has recently been published by the Cambridge University Press under the title: *Travels in Spain and the East 1808-1810, by Sir Francis Sacheverell Darwin*, Cambridge, 1927.

‡ James Keir Moilliet, son of Galton's sister, Lucy Harriot, married Sophia Harriet Finlay.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *February 7, 1909.*

DEAREST MILLY, Erasmus is, I believe, as comfortable as the case permits, and not in pain at all when still. I have not the least notion how soon he will be allowed to sit up and to attempt getting about in the smallest degree. It is difficult to see how his future life can be best arranged. Anyhow he has many comforts at the Regent Hotel which he could not easily meet with elsewhere, so at the worst he could remain where he is. Edward and M. L. were to have been with us to-day, but of course their plans had to be changed. The end of our stay approaches. The donkey and cart go to their home to-morrow and I part with them without much regret. Too much of a donkey like that would do permanent injury to one's temper, and make one revel in imaginary thwackings, pokes and imprecations. I have renewed a long-lapsed acquaintance here with the widow of a college chum, Mrs Ray, and find it very pleasant. There are many very nice people about here, as everywhere in England. My lease is out on March 1, but we shall leave a little earlier and go to Lyndhurst (or thereabouts) for March. In my walking tours of long ago, I came to the conclusion that the New Forest was the best place to find shelter from the cold March winds and to get sunshine. Besides, Lyndhurst is close to Eva's brother, the clergyman, who has a singularly pretty vicarage. You have not of late mentioned Hugh, *your* clergyman son. Doubtless no news is good news. The Eugenics Education Society is about (in a month or two) to publish a quarterly shilling publication, the *Eugenics Review*. There is a good Editorial Committee and it may be a success. I have just written a page or two as a "send off." Also I am again busy about the Feeble-Minded, being asked to help in a publication with Sir E. Fry and one or two others. This may possibly not come off. I have got the immense *Report*, eight folio volumes, of as yet unmeasured weight but certainly equal to that of a good-sized, well-packed portmanteau, out of which a few facts have to be gleaned. Best loves to you all. I heard of Guy at Claverdon, and hope that Amy has by now shaken off her cold. Ever affectionately, FRANCIS GALTON.

MEADOW COTTAGE, BROCKHAM GREEN, BETCHWORTH, SURREY. *February 15, 1909.*

DEAREST MILLY, Excuse this paper. I am writing before breakfast, and all of my proper letter-paper is finished. This squared paper is very convenient for my usual work and I always use it for that. Erasmus seems very comfortable, all things considered, and will I am sure find many compensations in the life of an invalid with attentive valet and nurses and plenty of friends. I hear of him from many quarters and all is to the same purport. The end of our stay is in sight, next Saturday will be our last Saturday here. I am in treaty for rooms in the Crown Hotel, Lyndhurst, which Eva went down to see. Though we are one hour S.W. of London, the only practicable way of reaching Lyndhurst by train is to go back to London and change there. It may prove more convenient by far to motor direct, and good motors are to be hired in Dorking. We shall see. A merit of the New Forest in March, which I realised in old walking days, is that the bare trees check much of the March winds and practically nothing of the March sun. Besides, Eva's brother, Walter, has his living two miles off. How the days roll on! I shall be 87 to-morrow and find on consulting *Whitaker's Almanack* that my "Expectation of Life" is now reduced to three years. In other words, that I am as likely to die before as after the age of 90. Also, that only one male out of every 50 reaches that age. Females are longer lived.

I have got off two little bits of work this week. One is the contribution I spoke of to the Cambridge hand-book, as it were (I don't know its title), to the *Report on the Feeble-Minded*. If they send me off-prints when it is printed, I will send you one. Also, I will send you the first number of the *Eugenics Review*, when it comes out in mid-April, that you (and I) may see whether it promises well. Heron (the "Research Fellow") has been week-ending here, and brings good reports of the progress of heavy work at the Eugenics Laboratory. Once again, about Erasmus' broken *neck* of the thigh bone. It is broken just below the cartilage; a common accident in old people. The fracture never *mends* but the broken end forms itself into a false joint, that is not wholly usefess. I suppose that all inflammation with much care, without pain.

Such a capable man tea-ed here yesterday! Col. Melville, a doctor, the head of the Central Army Institution for tropical disease (chiefly). It is in fact what Netley used to be under Dr (? Sir) E. A. Parkes and is situated close by the Tate Gallery at Millbank. Heron is to go to his laboratory this week, to see how far the information collected there will be useful to the Eugenics Laboratory. He offers it freely to us. Guy knew Netley well, but



I think it was then somewhat in a transition stage, so far as its avowed object was concerned. Parkes was a first-rate, original man, and ranks easily as the founder of army and other medical hygiene in this country. Evelyn Cunliffe has gone with her husband to Switzerland to be set up after all her anxiety and cares. Himbleton is to be let. It now belongs to the Gascoignes. Best loves. Ever affectionately, FRANCIS GALTON.

Address: CROWN HOTEL, LYNDHURST. *February 25, 1909.*

DEAREST MILLY, Thanks for letter. Erasmus' death* is another great break. He died very peacefully. To-morrow, Friday, he is to be cremated at Birmingham, and, at his express wish, without any mourners or signs of mourning. His instructions were minute and unusual. Edward is doing his best to carry out his wishes.

Ever affectionately, with loves to you all, FRANCIS GALTON.

CROWN HOTEL, LYNDHURST. *March 21, 1909.*

DEAREST MILLY, I am up for an hour in my dressing-gown, fit to write a short letter, though weak and with the sense of lumbago being just round the corner ready for a spring. It would not have done for you to come here now, as you so very kindly proposed. When turned out from this hotel, it proves quite practicable to return to London, for the Cameron Galtons will have by then left our house and their servants behind, only too glad if we keep them on for our use. I dare say that I shall be fit to move then, without risk of sharp pain. We must arrange to meet before long. I lie in bed doing nearly nothing and fancy that illness exudes slowly all the time. Have you ever had the opportunity or patience to read the booklet that Jaeger printed and issued with his clothing? It is original and curious. He himself was the executive head of the Zoological Garden in Vienna, and is an enthusiast. His view is that all illness is *one* in essence, with many aspects, and, so far as I recollect, argues his point with some force, enough to make the view not wholly absurd. I read very little. J. G. Frazer has just sent me his *Psyche*, a quaint name derived from the task somewhere assigned to her of picking out the good seeds from a mixture of good and bad. He shows the important help given by superstition, even of the absurdest kind, in building up society. It is an interesting subject, which I thought much about many years ago on the occasion of a memoir being submitted to the Anthropological Institution on the paradox "Why Nations who believed in auguries, etc., overcame those who did not." I felt then that *any* creed was of more importance to a nation than none, in that it *saved* them from anarchy and disruption. Frazer's book takes the same line, with a wealth of illustration. I think frequently of Erasmus and feel that somehow he had not a fair chance in life. Circumstance and his own temperament were often much against him; and all that was visible ending in a small shovelful of ashes, scattered over the flower-beds of a crematorium! Edward, on the whole, liked the simplicity and common-sense of the last function. It is gratifying to know that many unexpected, kind remembrances of him were sent. They included one from the Committee of his London Club, to which he had belonged between 60 and 70 years. I wrote on this picture paper, partly as a safeguard against too long a letter. In fact, I have nearly reached the limit of my strength. With many loves.

Ever affectionately, good-bye, FRANCIS GALTON.

FOREST PARK HOTEL, BROCKENHURST, HANTS. *April 16 (I think), 1909.*

DEAREST MILLY, Read this please as though written with the whining voice of a beggar. For it is to ask if you will very kindly tell me exactly what the enclosed German letter conveys. I am ashamed at troubling you and will write a proper week-end letter all the same. The Whelers come here from Loxton for two nights, to-morrow afternoon.

Ever affectionately, FRANCIS GALTON.

Is "Werter Herr" all right?

* The last of Galton's brothers and sisters. It was a long-lived family. Putting aside two who died in infancy (Agnes and Violetta), Lucy Harriot (Mrs Moilliet) died in 1848, aged 39, but Bessie (Mrs Wheler) died in 1906 at 98, Adèle (Mrs Bunbury) in 1883 at 73, Emma (unmarried) in 1904 at 93, Darwin in 1903 at 89, Erasmus in 1909 at 94, and Sir Francis himself in 1911 at 89. His mother Violetta Darwin (Mrs Tertius Galton) died in 1874 at 91, and her grandmother Elizabeth Hill (Mrs Robert Darwin of Elston), mother of Erasmus Darwin, in 1797 at 95.

FOREST PARK HOTEL, BROCKENHURST, HANTS. *April 19, 1909.*

DEAREST MILLY, Thank you ever so much for translating that German imposter's letter for me, asking for pecuniary assistance in return for communicating early news of a big secret. I have sent him a card regretting that I cannot do what he asks. Yes, "Brennpunkt" is certainly "focus." The Edward Whelers are still with us, but leave to-morrow for Claverdon direct. He is busy planning small alterations to the house at Loxton, enough to make it liveable-in during occasional visits there of his wife and himself. It is a most difficult job, but he now has evolved something that is both simple and effective. We have had some beautiful weather here and the New Forest looks very attractive. But I get about with difficulty. Though quite at ease when still, the cramps and rheumatics are sharp, when I change position. I do hope your grandson will get over his present ear ailment. We go to Rutland Gate next *Wednesday*, the 21st. The landlord begged us to do so rather than stay a day longer as intended, on account of a customer in whose family there had been a death. So, as matters stand, we shall stay a full week in London, and I hope to see some old friends there, before going on to Cameron Galton's house at Eynsham. I occupy myself in muddling away at my hobbies. I am glad you like the look of the *Eugenics Review*. Eva and M. L. are just back from croquet at the Walter Biggs, five miles from here. Best loves. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *April 25, 1909.*

DEAREST MILLY, We are back home and delighted that *your* home is on the point of becoming home-like. How beautiful this April is! We go next Thursday to Cameron Galton's house, Newlands, Eynsham, for a month; then back here. My rheumatics were driven away for one day by a wonderful medicine, some preparation of salicine (willow-bark), but it has returned, all the same. These sudden and transient effects are curious. I don't see much notice taken of the *Eugenics Review*, but it *is* noticed. It will, I trust, grow more solid. But how many people are ready to talk, and how few to work. There is no news for me to tell you. The parks here have already some beautiful bits of greenery and great patches of garden flowers. I was trundled* in Hyde Park for an hour this morning, and the same yesterday. Also I have been round Battersea Park in a taxi-cab. The old "growlers" and hansoms have almost disappeared from the cab stands. Spencer and May Butler and their classical son, Ralph, came to tea yesterday and Lady Isabel Richards (née Butler) came with her four little girls this morning. They don't look a bit as if they had ever been from England. She even looks younger, and fresher if possible, than when she started for India five years ago. Her husband returns next Sunday, "for good."

Ever affectionately, and I fear ever rheumatically, yours, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *May 3, 1909.*

DEAREST MILLY, It would be very pleasant if you could come in June, when Eva would enjoy a sketching, etc., holiday. But she says that if I am not better then she would not like to leave me †. (But you will come all the same, I hope. I should anyhow stay the first week of June to enjoy your visit, but if Uncle Frank is really himself again I would like to go off sketching the three other weeks of June. At present he wants a great deal of care, and if left alone, quite forgets he isn't 25. Eva. This isn't *my* blot!) Let me then defer reply until next weekly letter. I am very helpless, and the swelling of one leg mends *very* slowly; still it mends, and the other is normal. So far as appetite, spirits and sleep are concerned, I am as well as I ever was, *now*; but how long this may remain so is a *quere*. I feel sure that I shall never be able to climb the stairs of this house again. I am carried up every night by Gifi and the man-nurse (Charman), who find me heavy, but I walk downstairs in the morning. I am thinking of parting with this house and of moving into a *flat*. Also of looking out for a well-built *bungalow* in some sunny place not far from London. Newlands, as I think I told you, has been quite given up. I did not feel fit to go, and the Doctor confirmed me. Poor Lucy Cameron, she is unfit to go to Aix, and I think may feel relieved that her house remains unoccupied while she is in Folkestone, in case she wants "home." Of novels, read *An Immortal Soul* by Mallock. It is

* This term now begins to appear in Galton's letters and signifies an airing in a bath-chair.

† The sentences in the brackets are in Evelyne Biggs' handwriting.

well written and healthy throughout, though the first chapters do not hold out that expectation, and his philosophy at the end of it is sound and interesting, and so far as it may clash with your own views, will at all events stimulate. I get through hardly anything. A sheet of scribblings comes upstairs every night and goes downstairs every morning with hardly any daily additions to it, and may come to nothing in the end. Best loves.

Ever affectionately, FRANCIS GALTON.

I had a blessed two hours' scientific chat with Karl Pearson, last Saturday, which was most cheering.

42, RUTLAND GATE, S.W. *May 10, 1909.*

DEAREST MILLY, It will indeed be a pleasure to us both to have you here on June 5. Eva has no definite plans yet for the end of the month, waiting, as she said, to see how I get on. But I get on *very* slowly, the rheumatics are as painful as ever. However I am engineered into my sister Bessy's wicker-work bath-chair, and am trundled in it to the beautiful parks. My doctor, McCaskie, told me to-day that he was about to leave off practice, and to hand his patients over to his sons. This is a grief to me, for he is a very capable man and I shall have difficulty in finding a substitute. My plans are gradually crystallising into a moderately sized London flat, and a *low* country house where I can live on one floor. In the meantime, I am going to live here on the drawing-room floor, turning the back drawing-room into my bedroom and having the man-nurse in the studio. Eva has been very busy planning this and the servants are now hard at work in carrying it out. Lucy Studdy comes here for a few nights next Saturday on her way to you. She will give you our latest news. I trust that Dim will soon get stronger. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *May 16, 1909.*

MY DEAR MILLY, Lucy arrived at tea-time full of enthusiasm about the beauty, comfort and picturesqueness of your house and with the box of peppermints you sent me. Each of us three eat one after dinner with good stomachic comfort. I send with this a copy of the *Problem of the Feeble-Minded*, which contains a very useful analysis of the Royal Commission evidence. Please accept it. Lucy gives a good account of Dim*. I do hope the coming rest—you said she was going to Chester Square—will strengthen her as much as *you* could desire. She told me too a little about Guy, whom she just saw. To-day I have had two trundles in the bath-chair. The wind is cold but I go in a fur coat, which is a complete shield from it. I don't think that I am a bit better, though Eva and the doctor insist that I am. Anyhow, I do *not* gain in muscular strength, nor do the rheumatic cramps leave me. Perhaps they *are* a trifle better in the arms. Excuse bad writing, due to its being done on an arm-chair table to which I am not yet quite accustomed. The plan of turning the drawing-room floor into *my* floor answers perfectly. The man-nurse sleeps in the studio. The back drawing-room is my bedroom, and the front drawing-room is still the drawing-room. I get down to the dining-room for lunch and dinner, being carried upstairs after each. It all acts so well that I have given up the idea of a flat, but am looking out for a country house to rent on trial, with option of buying or of prolonging the lease. In this I should spend the winter. I have no news.

Ever affectionately, with loves to you all, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *May 22, 1909.*

DEAREST MILLY, It will be nice when June 5 arrives. I *have* taken a house for August and September, near Cobham. Eva went down there yesterday to inspect and to report. Nothing is yet decided about next winter. I doubt if I am getting one bit better; they say I am, but I don't feel it. Of course, this warm weather is most grateful. This morning I have heard of the sudden death of my dear friend of very many years' standing—Mrs Hills, formerly of Corby Castle, now, or rather lately, of High Head Castle, near Carlisle. She was recently widowed, and spent a few days with us at Brockham Green, the last visit she ever made. She was the daughter of Justice Sir W. Grove, at whose house Louisa was taken so alarmingly ill more than 30 years ago, and who has been like a sister to me ever since. Very few friends are

* Pet-name of Amy Lethbridge, Galton's great-niece.

left to me like her. I can count *one*, but not more without some reservation. And in my own family there are none of my generation, and very few of yours besides yourself. *Sic transit*. I am just beginning Saleeby's new book, *Parenthood and Race Culture*. He dedicates it to me as "The August Master of all Eugenists." I read it in proof and, though there is much I would myself strike out, expect it will do good. He has eminently the art of popular writing with fluency. Mrs Horace Darwin spent a night with us, and her nice daughter* came to luncheon. She, the daughter, goes in for botany. Eva and I taxi-cabbed through Bushey and Richmond Parks a few days ago. It was town the whole way to one end of Bushey Avenue, but still countrified on the way back through Richmond Park. Love to you all three.

Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *May 31, 1909.*

DEAREST MILLY, You send me three grateful bits of news. 1. Frank's new appointment; 2. Guy's success in connection with the car trip; and 3. The new American grandson. Best congratulations thereon. I look forward to next Saturday with much pleasure. But you will find me a very helpless host. I can only walk a few paces and those tottering and with pain, but get out sometimes twice in the day in my bath-chair. Kensington Gardens have been, and still are, lovely in parts, almost beyond expression. I am grateful to have lived to see this Elysian spring. Good-bye till Saturday.

Ever affectionately, with loves to you all, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *June 15, 1909.*

MY DEAR EVA, The exact breadth of the arm-chair is 28 inches. If the garden gate be 30 inches wide, it will do well. 29 would *do*, but it would be rather a shave. I am so glad you have had an interesting day at Fox Holm. Curious that the Lawrence Jones's should have been there. Yesterday a letter came by post with "Prime Minister" printed on the cover and "Confidential" written inside. At first, I thought it must be some wine-merchant's circular, but its contents were "*Confidential*. My dear Sir, I have the pleasure with the King's approval of proposing that you should receive the honour of Knighthood on his Majesty's approaching birthday. Yours faithfully, (signed) H. H. Asquith." So I have to live till November 9 † and then shall blossom. Don't make any fuss about it. I told Giff and Mrs Simmonds, as they would both like to know. I will keep this letter open till near post-time for news of the Cambridge Mathematical Tripos, which was issued this morning.

Tea-time. Charles G. Darwin is neither 1st, 2nd, 3rd nor 4th, but the 5th, 6th, 7th and 8th are bracketted equal, and he is one of these. Mrs Flack has been worse than useless. The result has been that, with my approval, Mrs Simmonds has got her 15-year-old sister to act as tweeny until we leave London. She will arrive to-night.

Affectionately yours, FRANCIS GALTON.

42, RUTLAND GATE. *June 29, 1909.*

MY DEAR EVA, I was so tired yesterday that I did not write; Milly helps greatly with my letters and I am at last nearly through with them, about 100. A letter came from the Home Office saying that I was to appear to receive Knighthood at a time to be fixed by H.M. I wrote back a piteous appeal against going to the ceremony, being unfit for anything of the sort, and to my joy a reply came this morning to the effect that I need not go, but that the patent of Knighthood would be sent me. Bad news for the tailors who sent circulars to fit me up for £32 odd. It was fair this morning and I went out in the bath-chair, but a sharp thunder shower suddenly came on, and Charman, I fear, got a little wet. Such nice letters come. I was wrong in rather ridiculing the Salvation Army missive, which, to tell the truth, I had not wholly read through. The last paragraph is very dignified and I respect their motives. So much so, that I am half inclined to frame and hang it up. Things go on here much as usual. McCaskie comes to-morrow. My legs are not one bit better, but I feel well in myself.

Bateson has *not* sent his book. I will wait a little longer and then buy it if he does not.

* Ruth Frances Darwin.

† The actual, but not necessarily the *official* birthday of King Edward.

Best love to Lucy and Cameron. I fear the weather has been too dull for your sketchings. It will be pleasant to have you back on Thursday. Leonard Darwin was here and we talked to him of the approaching dinner. Neither he nor I then remembered the day. Doubtless you and they are in complete accord, especially as to week! I said that the time was wholly in your hands. He will have a busy time on Monday next, with Lieut. Shackleton and Royalty at the Geographical. I saw something of the procession to South Kensington on Saturday, out of my bath-chair, from a path leading from the Park to opposite the Alexandra Hotel. It was very "spectacular" and well proportioned though not long and only three or four carriages.

Ever affectionately yours, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *July 8, 1909.*

MY DEAR MELDOLA, Your kind and hearty appreciation is peculiarly welcome, for your judgment is especially valuable to me. The last time we met was at the final ceremony to Herbert Spencer. Nothing in that made so deep an impression on my imagination as the volumes of smoke rising from the chimney as we all went away. It meant "business." My time for leaving the world cannot be far off, for I am become very and increasingly infirm. It was a great grief being unable to join in any way in the Darwin celebration. How admirably it went off! How much there is to do in life and how very much has to be left undone! I follow your work, and from time to time I see accounts of it, always with keen interest.

Believe me, yours sincerely, FRANCIS GALTON.

That stupid error of address in the Royal Society *Year Book*! I took the house during the past winter and they printed it as my permanent address—I am still, as always, a cockney as to my home.

42, RUTLAND GATE, S.W. *July 18, 1909.*

DEAREST MILLY, It was but a scrubby message that I sent you through Eva, being at the time tired and sleepy. Pray, in your next, tell me the latest news of Jim*. His father kindly wrote me a very hopeful account. Has the visit to Folkestone confirmed it? And did you succeed in alleviating the "uncouthness" of Hugh's "solitary life"? You may recollect something of the sort about a great nonconformist Divine whose friends in consequence hunted out a wife for him, with great after happiness. I put the story into my *Hereditary Genius*, under the "Divines," but have not the book at hand. The cold weather has been against my mending, but has not made me worse. Are you a reader of *Peter Pan*? A group of small figures is to be set up in Kensington Gardens at the *Bay* where he landed. So Sir George Frampton told us, who is the sculptor. He came yesterday to tea, about doing a bust of me, which (but I shall hear more exactly to-morrow) he will begin at once. It will be amusing to witness the operation. It is to take place in my old dressing-room, above my present bedroom. I suppose a hodman will arrive with a bucket of clay. He will send the necessary furniture, stool and table, to work on. I miss you often. Do tell me how you found the garden, after the storm had treated it so rudely. We still get copious supplies of very big strawberries. It seems they send daily consignments of some sixteen tons of them from *Alnwick*, when the season in these parts is coming to an end. Loves to you all. Ever affectionately yours, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *July 24, 1909.*

DEAREST MILLY, Good as your account is of Jim, I wish it could have been still better. There are so many dangers before abscesses in the bone of the ear can be wholly cured. Indeed the cessation of the wonted discharge is a danger in itself. It will be a pleasant experience for his brother to go to Claverdon. What an amusing but *terrible enfant* George must be! Poor Mary, pluck does much, but not everything. As regards home matters, one event last week was seeing a singularly beautiful black and white canary perched fast asleep on the frame of one of the pictures. He was carefully captured and put into the conservatory, pending inquiries. In the meantime I got him a cage, but in two days he died. I know not what from. It was a piteous sight. Sir G. Frampton gets on busily with the bust. He first gets the profile exactly, and does much of the side face, then goes on to the full face. He is wonderfully capable and painstaking. The time of our departure, August 9 or 10, approaches only too fast. Frank Butler comes next Saturday to clear out and arrange, as far as he can, my old instruments

* Second son of Mrs Lethbridge's son, Edward.

and papers. There is so much that I shrink from parting with, but which I can never use again and which would be useless to others. Mere rubbish in short to all but my past self, so it must go to the scrap heap.

All I saw of the fleet were the few destroyers and submarines moored at Westminster and the Tower Bridges. I ventured on that much in a taxi-motor. So sorry about your horse. He must be a great loss for the time, notwithstanding the occasional drives in Guy's motor. A *Eugenics Review*, under the title of "Rassen-Hygiene," has been started in Munich, by a very capable man, Dr Ploetz, who is the editor of a really solid anthropological periodical. The society that issues the review has five honorary members among whom are Haeckel and Weismann, and I am asked to be its honorary Vice-President, which honour I have gladly accepted. But I must work up my German! Both our loves to you all. You will be solitary when Amy leaves you for a week. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. August 7, 1909.

MY DEAR MILLY, Thanks many, *re* Miss Annie Butler. I fully believe that the National Institution for the Feeble-Minded is the Society in which Dr Alice Johnson is much interested, as the Eugenics Education Society also is. Its secretary, Miss Kirby, is a very nice and capable woman. The model of my bust is finished, except just the coat which is being modelled at the studio—I mean a little of it. Sir G. Frampton has had my coat and overcoat nearly two days already. I hope to get them back to-day. But it is so delightfully warm that I am putting on still cooler things. The bronze cast won't be ready till near Xmas. The operations take much time. I should like to see the white-hot metal poured in. All that part is done by specialists. We have quite fixed to go to *Torquay* for the winter. My two doctors severally and collectively recommended it. I don't think that in essentials I am any better, perhaps a little worse. No diminution of swelling of the legs, rather less strength, but happily much less rheumatics. Recollect my address after Monday will be Fox Holm, Cobham, Surrey, for two months. Eva will run down to Torquay in a few days to house-hunt, escorted by a lady friend who is staying there. Edward Wheler came up for a few hours to see and criticise the bust. Also, Cameron Galton slept a night here on his way to Geneva. They were of decided help. The likeness was brought out much better through their hints, and seems satisfactory to all now. Edward told me about Edward Lethbridge's visit to him. Ever affectionately yours, FRANCIS GALTON.

Loves to you all.

FOX HOLM, COBHAM, SURREY. August 29, 1909.

MY DEAR MILLY, What a house-full you have! Please tell Edward that my conscience pricks me at never having answered his letter about Jim, saying how much better he was. I was very glad to receive it. We get on very pleasantly here, especially when the sun shines. My man-nurse is an accomplished poacher and snares rabbits in our own grounds, which we eat. We see various members of the large Buxton family, all nice and interesting. The big house, "Fox Warren," now belonging to the Postmaster-General, Sydney Buxton, is occupied by a cousin. I get into a carriage most days, by means of an artful contrivance and the help of two men, and so for a 1½ hours' drive. Also, my tent is an immense comfort. It keeps out the wind and lets in the sun. Yesterday I had a good 2 hours' steady work in it. Much love to you all. Ever affectionately, FRANCIS GALTON.

There is an appreciative article on Lucy Studdy as an embroidress, with an excellent portrait, in a monthly magazine called *Needlecraft*.

FOX HOLM, COBHAM, SURREY. September 6, 1909.

MY DEAR MILLY, Your account of Jim's health and hearing is unexpectedly grateful. Best congratulations to all concerned. You must indeed be a house-full. Here is a story sent me by Lionel Tollemache: Some French ladies were deploring the spread of scepticism (which word is, I think, pronounced with a softer *c* in French than with us), whereon one said "Heureusement on a inventé les antiseptics"!! Our plans are quite shaped now. We go from here straight to Haslemere and I lend 42, Rutland Gate during the winter to the Gibbons. It will be a great comfort to them. She was Gwen Chafy, as you know, and he will be a kind of man of business to me. Also my bedroom will be intact and I could come back at any time. The Buxtons' house close by is called "Fox Warren." It might appropriately be called "Buxton Warren." There are so many of them there and thereabouts, and all are attractive.

Eva is not as strong as is her wont. An old strain, at least nine years old, has been too much ignored of late, and she is ordered rest, and to get *fat*, if possible. I expect Lucy Cameron Galton to-day for the inside of the week. She will tell me about Cameron, who is somewhere in the Alps, and of Violet who was with a friend in Venice. Life goes on here much as usual; quietly and contentedly. My man-nurse continues skilfully to snare rabbits, which we continue to eat. Edward Wheeler killed 131; they devour his corn. Loves to all under your hospitable roof-tree. Ever affectionately, FRANCIS GALTON.

FOX HOLM, COBHAM, SURREY. *September 11, 1909.*

MY DEAR MILLY, Yes, the *c* in the French "scepticisme" is "muét," which improves the anecdote. What a difference of sense one letter makes! I have no new ones to tell. To-day is glorious and I have had a trundle in my bath-chair, very successfully. Galtonias are sensitive to soil. Those hereabouts are very good. More than half of our stay here is over. I shall be glad to be safe in Haslemere before wintry weather arrives. I have been won over by a piteous appeal, in consequence of an offer from Karl Pearson, to accept a puppy. It is a pure albino of pure albino descent,—a Chinese pug with the name of Wee Ling. Albinism has been a recent study of Karl Pearson. This little creature may prove ancestor to a valuable breed of them; valuable, I mean, from a scientific point of view. Eva will rejoice in the young pet, of whom I have a photograph. Ever affectionately, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *October 4, 1909.*

MY DEAR MILLY, We are just arrived after a very easy $1\frac{1}{2}$ hours' motoring. "We" includes the puppy, who bewailed most of the way in an unknown dog-language, very like the self-made noises in a bad telephone. This place seems very suitable, but I have only seen this one room, the drawing-room, as yet. They are unpacking upstairs and in $\frac{1}{2}$ hour after tea I shall be carried up to my bedroom. I am indeed grieved at poor Jimmy's renewed ear-trouble. *It sounds so very serious.* It feels very nice to be again near to many old friends and to have again seen familiar roads and scenery. The trees are just beginning to show autumn colouring, but some cottage creepers that we passed on the way were fully turned into gorgeous reds. Eva is distinctly better under her regimen of fattening food and rest. The latter will now, I hope, be taken in full doses, as Violet* will be here to-morrow afternoon for her long stay. She, Eva, has shown me your letter which was awaiting her. I learn now that the house is the "Rectory," not "Vicarage," as I had been told. The latter address has however sufficed. I am so glad you liked the Gibbon-Salomons. This is an ideal country parsonage, such as a cultured clergyman would enjoy. Excuse more. Ever affectionately, with many loves, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *October 19, 1909.*

MY DEAR MILLY, Again I am unpunctual and blush (internally). All goes on steadily. Eva is happy in bed, and Violet seems to enjoy her double occupation of nurse and housekeeper and of companion to me when out of doors—twice yesterday, but often nil owing to bad weather. I have had calls from two scientific friends, full of information and pleasant talk. You will have received the *Eugenics Review*. Mügge's paper strikes me as very good. A substantial but comparatively thin book on *Eugenics* by the Whethams is just out. It is well written and well got up. He is a Fellow and Tutor of Trinity College, Cambridge, and his wife and coadjutor is zealous and able. He takes a broad and sensible view of the necessity for our Race Improvement. It is so well written that it may win its way. The albino puppy grows in body and mind. His tail curls tightly already, and he has had his first lesson in *Sociology*, through offending the cat and receiving a wipe of her claws upon his little pink nose. Lucy Studdy comes to Haslemere next Saturday. We can't take her in, but there is a fair hotel very near and she can meal with us. Three invalids in one house would tax domestic resources too much. There will be much "high faluting" in Birmingham this week. An extension of the University there will be opened and their power of giving degrees will be exercised for (I think) the first time. Oliver Lodge will be in his glory and will, I have no doubt, act his part exceedingly well. My horizon is now so narrowed that I have little to tell that would interest you. Eva would send her love if she knew I was writing. Ever affectionately, FRANCIS GALTON.

* Violet Galton, a sister of Cameron Galton; both were Francis Galton's first cousins once removed.

THE RECTORY, HASLEMERE. *November 25, 1909.*

DEAR MISS ELDETON, Thanks for your book, now safely received and read through. I sincerely hope that it will have the success that it merits and which you and your brother and myself have all at heart. Enclosed I send in return a reprint, just out, of my own lectures. They might all have been improved much, but I thought it better to let them stand just as they were; besides, I am grown too infirm to do anything of value now, I fear.

The post has just arrived, and among press cuttings I found the enclosed by Dr Saleeby, which refers to your work. Also, I read lately a speech by the Poet Laureate, who gave the advice "Do not resent criticism and *never reply to it.*" As a general rule this is excellent, but if you should care to reply, it would be well to confine what is said to justifying the *appropriateness of the data*, which Dr S. attacked in a former letter somewhere. As to the statistical treatment of them, it is needless to insist on its accuracy. For the life of me, I cannot yet see how a Mendelian objection can bear on the value of your work.

Very sincerely yours, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *December 12, 1909.*

MY DEAR MILLY, January 3 would suit us particularly well. So let it be, unless as the time approaches you wish to change the date. You must be most anxious for a letter from South Africa. Pray let me know as soon as you receive one.

Matters go on here as usual. Janet Fisher is with us. She will probably be Eva's companion when Eva goes abroad. It appears that there is much to talk over first. How you *are* getting on with the Braille! A nice young fellow lunched here on Friday, who had been four years studying at the University of Freiburg (under Weismann). He told me about the vexed question of having boys and girls in the same school classes, and that doing so was considered a complete success in Baden, with *one solitary* drawback. You know what pretty blond tresses the Baden girls mostly have. It appears that the boys cannot resist the temptation of stealing up behind and dipping the ends of the girls' pigtails into an ink-pot. I suppose the pigtail of a girl in a fury would scatter its black charge right and left. What a picture! I have just procured a copy, 7d., of Harmsworth's *The World's Great Books* under which magnificent title four of mine are to be included. Certainly the No. 5, that I have, is uncommonly well done. It is not too snippety. The thing is published fortnightly and contains about 100 pages, good print. As I hear, 400 pages are to be assigned to me, 100 for each of (1) *Hereditary Genius*, (2) *Human Faculty*, etc., (3) *Eugenics* and (4) *My Memories*. They will take up four numbers or the greater part of them. We shall see. I am glad that Loxton* is within motor range of Minehead.

Ever affectionately, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *December 19, 1909.*

MY DEAR MILLY, Only two days more, and the daylight will grow longer, and yet "as the day lengthens, so the cold strengthens." Thus far we have pulled through fairly well. Harmsworth has begun to publish epitomes of my books, on a much smaller scale than was proposed, and Dr Saleeby has put them together fairly well, certainly with much industry. You must be anxious about Frank, but a seldom-letter-writer accounts for much. You have, I suppose, no correspondents among his South African friends? So that astute, money-grubbing sovereign, Leopold II, is gone! If our Princess Charlotte had been his mother he might, according to the late Duke of Wellington, have been yet worse. I speak of Lord Stanhope's record of conversations with the Duke at Walmer Castle, in a passage that appeared in the 1st edition but was suppressed in the later ones. It stated that it was a mercy that Princess Charlotte died, for she had the vices of *both* her parents! However, she was idolised by our nation, which of course knew nothing of her real character. Thanks for Xmas greetings, which I heartily return to you all. My pigtail story must, alas, be discounted. I thought it had been a frequent occurrence, but it was apparently one solitary outrage which impressed itself deeply on the Baden mind. We have been chuckling over the *Caravanners* †. What an intolerable idiotic prig the German Major is made out to be, and yet not an impossible one. January 3 will soon arrive.

Ever affectionately yours, FRANCIS GALTON.

* Loxton had originally belonged to Samuel Tertius Galton, had passed to his son, Erasmus, and now belongs to Francis Galton's nephew, Mr Edward Wheler-Galton.

† By the Countess von Arnim, now Countess Russell.

THE RECTORY, HASLEMERE. *December 26, 1909.*

MY DEAR MILLY, So another Xmas has come and gone, and your peppermints have helped us to enjoy it. I am so glad that news had reached you from South Africa before the 25th, otherwise you must all have been worried. What you tell me of Fräulein Ronath's report of German opinion about my precious self simply amazes me. I feel sure there must have been imaginative exaggeration of merely civil answers to her leading questions. I doubted if twenty people in Germany knew of my existence. Anyhow, it is very kind of Fräulein R., though I cannot accept the over-flattering sentiments she conveys. Violet Galton is with us now. She was to have Xmas'ed with her sister Amy at Keston, but the domestic establishment got suddenly all wrong, I forget precisely what. Anyhow, another servant was wanted and could not be had. Eva is distinctly better and has lost her thinness; fat is a great help towards keeping truant kidneys at home. We look forward ever so much to January 3. With all loves.

Ever affectionately, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *January 6, 1910.*

MY DEAR MILLY, Your welcome letter arrived this morning. I am glad that your long journey home ended without mishap. Thank you again, sincerely, for having come. My "one snipe" that has given me occupation every day for months past, namely the "Numerical Profiles," is—to continue the metaphor—being *stuffed*. In plain words, it is printed and I send back the proofs to-day. You shall have a copy of it as soon as published, not improbably at the end of this week. In the meantime there is a placid interval, because I cannot write for material to work on until it, the article, is out.

Hesketh Pearson is here for the week-end. Pan (Josephine) Butler was to have come also, but is in bed with a cold. Last night we had jugged hare for dinner. I had insisted on its being jugged *before* otherwise cooked. It was excellent; twice, three-times, ten-times better than a jugged *réchauffé*. I believe this is the only event worth mentioning.

Ever affectionately, with loves to you all, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *January 6, 1910.*

MY DEAR LEONARD DARWIN, I am very comfortably lodged here, and am pulling through the winter fairly well. It gave me much pleasure to read your proposal about honorary members to the Geographical Club. The rule is adopted, as you may know, at the Royal Society Club, but I think their limit of paying membership exceeds what you propose (? 20 years).

Oh dear! how people die. Life seems to me as occurring on an endless belt. Babies are



dropped on it through a hopper at *A*, they grow, frisk, and age, and drop off in senile imbecility at *B*. I don't yet feel my faculties to wane distinctly, but I tire very soon.

An article of mine, of which I return the proofs this day to *Nature*, may perhaps interest you. It is a literal fact that you can convey a very respectable profile likeness in four telegraphic "words"; that is, in four groups of figures, five figures in each group. I give illustrations. With kindest remembrances to your wife. Ever sincerely yours, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *January 9, 1910.*

MY DEAR LEONARD DARWIN, It was a pleasure to hear some talk of you. I am settled here for the winter, very comfortably but increasingly feeble in body. The air of Haslemere suits me well.

I am very glad you continue well disposed towards Eugenics. The problems connected with it are difficult and statistically most laborious. I notice that in your lecture you do not take account of differential fertility, which to my mind is the most important of all factors in Eugenics. H. Spencer's law about the diminished fertility of the most differentiated animals seems to be an excellent guess founded on *à priori* data.

I read your excellent Geographical appeal for funds for a larger house*, and shall in due time send my quota. Just at this moment I am rather entangled with prospective obligations, or fancy that I am.

What an eventful Geographical Presidency you have had. I am very glad of it for your sake. With every appropriate New Year wish to you and your wife.

Ever sincerely yours, FRANCIS GALTON.

THE RECTORY, HASLEMERE. *January 25, 1910.*

MY DEAR EVA, By all means let Sir G. Frampton send the bust to the Royal Academy. My poor shrunken nose! I feel like Wee Ling looking into a glass. The little beast is as merry as can be, and we have a grand game of bob-sugar after dinner. He has grown disdainful of bob-indiarubber-ball. Yes, ask Pan and Hesketh for Feb. 5-7. Dr Barnardo must have been a wonderfully good organiser. I should be glad of particulars. Milly dragonises well. Sir A. Geikie tea-ed here yesterday and told me much in the scientific way. His book about Seneca's philosophy is printed, but held back until the election turmoil has subsided. Major Norris has got me a good account of Daddy Tin Whisker from Australia. It is aluminium, rubbed by an amalgam (= a metal combined with mercury). Its filamentous growth has been *noticed*, but no explanation is given. I can fancy a scab being produced, but don't understand the hairy growth.

I am quite in "my usual" again,—and Miss Jones is busy at Miss Baden-Powell's silhouettes (which you traced for me)—but I was trembling on the verge of being bad three days ago. Drives on two successive days, and an hour in the shed on the third, were too much for me. Milly seems quite happy, and I gather that you are also. Give much love from me to the Brees. I am wearing Adèle's muffetees with much sense of comfort. The partial discolouration has been washed out by Charman. Ever affectionately, FRANCIS GALTON.

Have you news of Bessie† yet?

THE RECTORY, HASLEMERE. *March 13, 1910.*

(42, Rutland Gate, S.W. on and after Monday 21st.)

MY DEAR MILLY, *Your* spring is a full week in advance of ours, I think. Here are lots of crocuses, but no green tips yet to the trees. William Darwin‡ is here with his motor for the week-end. Edward Wheler comes on Wednesday for a night or two. Then we pack up and send off most things by Gifi on Friday. Eva, man-nurse and I by motor on Monday, and the one remaining maid by train on that day. Amy and Guy will enjoy their Loxton picnic. Poor Frank! A man, Mr M. W., who was in office in the Cape, married a wealthy lady here and has now returned, did not speak in the same gloomy terms that Frank does. Probably he got his foot early in the stirrup and mounted a good horse, and so pushed forwards. Col. Melville spoke strongly in favour of Mr Haldane§, who he thinks has done and is doing wonders in the face of great difficulties of tradition, organisation and the like. Eva sends her best love to you all, so do I. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *March 27, 1910.*

MY DEAR MILLY, Somewhat battered by coughing, mostly asthmatic, here I am, settled in home again. Everything looks homely and suggests old associations. Dim's portrait, in photo, stands conspicuously on the chimney-piece opposite. But the room has to be rearranged, owing to structural alterations in the form of a built partition between the front drawing-room, now my only drawing-room, and the back one, now my bedroom. It will take time to make it all comfortable, new bells, etc. I understood from a line in Lucy's letter that a picture of Ravenscourt is in this week's *Queen* newspaper. I will order it as soon as Bank Holiday is past. We are trying *Coalite*, said to burn more purely and with less heat than coal; a desideratum for my small bedroom. Do you ever use it? A friend comes to-day to show off his hearing apparatus, which, when in good

* Major Leonard Darwin was at this time President of the Royal Geographical Society.

† Now Mrs Simmons, Evelyne Biggs' former maid.

‡ Charles Darwin's eldest son.

§ Afterwards Lord Haldane, then at the War Office.

humour, acts very well indeed. It is a telephonic arrangement. That which I tried some months ago, made by —, was always out of humour and made its own internal noises which overwhelmed what the speaker said. So my hopes are pessimistic, but I shall soon learn more.

Lucy will be with you now or nowabouts. Tell her that the Venetian window onto the balcony of my drawing-room, and the swing ventilator above, are a great success. They were put in after she left. With much love to you all. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *April 12, 1910.*

MY DEAR MILLY, The time is in sight, though still a long way off, when I shall have the pleasure of having you here. Eva is looking forward much to Rome and to becoming a Roman Catholic. She is being "instructed" and I both hope and believe the change will suit her temperament. She is a very thoughtful and kind nurse to me. I don't get as quickly better as I hoped, but *am* stronger, a little. Yesterday I was able to sit half an hour on my balcony while the afternoon sun shone on it. Every day we shall get longer sunshine. I am doing as nearly nothing as can be, but began to revive yesterday on Molière. One advance is that I have at length got a really serviceable hearing apparatus, so that people can talk audibly to me without raising their voices, and Eva is reading out to me, each evening, a bit of Mrs Schimmelpenninck's biography. How vividly and well she tells her version of the tale. I heard from Edward of Guy at Loxton. What trouble the water supply gives. When you come, there will be a room available for Amy, if she likes to come too. She will of course be always most welcome. I am writing without your last letter at hand and mistrust my memory about many of your matters, your repairs, etc., and so do not write about them. With loves to you all.

Ever affectionately yours, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *April 16, 1910.*

MY DEAR MILLY, It would give a very welcome addition to Eva's holiday, if you come on May 17 as you propose. She would welcome you and start the day after. Thank you very much. Miss Jones* will be here also during three weeks of your stay. She will do a good deal of pen and ink and pencil work, and she knows all my ways and the servants too. That will leave you your mornings free. Will Dim come on Friday, June 3, and stay up to the time of your return, Tuesday, June 14? Eva proposes to return on the 15th to get the house ready to receive her (and my) friend, Mrs Townsend, on the 17th. She will add a postscript. So you have really finished your long labour of "Brailing" my *Memories*! I trust that you will thereby give a pleasure to many by enlarging the choice of books readable by them. I am getting on a little, I think, and believe that, as you say, the coming summer will help. I got out in a bath-chair this morning, but the day, which had been brilliant, clouded over and a sharp hailstorm followed almost immediately my return. I had not time to get as far as the flower walk in Kensington Gardens and have as yet seen next to nothing of the glories of the coming spring. There has been much dusting and rearrangement of pictures and books in the drawing-room, which already looks quite pretty and harmonious.

Ever affectionately, FRANCIS GALTON.

Overjoyed you can come earlier for that gives me a nice jaunt. Also I hope Dim will now come for quite 10 days. Your loving Eva.

42, RUTLAND GATE, S.W. *May 12, 1910.*

MY DEAR MILLY, I owe you a letter, and, as the time is so near of your coming here, lose no more of it before writing this. All goes well, but I have been unable to face the cold winds and have been a prisoner in-doors for some weeks; but to-day seems milder. The King's death must bring forcibly back to you all his great kindness to your son Bob, when he was lying so ill. The act seems to have been a characteristic one on his part. What political storms, now temporarily lulled, are coming again soon! I hear that the new King and Queen will probably do much good by purging the Court of many undesirable persons and habits, and by

* Miss Augusta Jones, who in the last two years of Galton's life did occasional secretarial work for him.

introducing more simplicity where needed. Eva will receive you here on Tuesday and goes to Rome next day; in the first instance *through* to Baveno, where she will meet friends. I am rejoiced that she is now strong and very fit for travel. Miss Jones came here yesterday. She will take much trouble about me off your hands, being very vigorous and serviceable. I trust you will find all here as you want. The drawing-room is much improved, thanks to Lucy Studdy's idea of a solid partition instead of a curtain. Did I tell you that the bust, or rather a cast of it, is in the Royal Academy? Sir G. Frampton only sent one other exhibit, out of the six he is entitled to as R.A. Best loves to you all.

Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *May 21, 1910.*

MY DEAR EVA, You will be so immersed in Italian feelings and atmosphere, that news from here will seem petty and even profane, for a time at least, to you. The facts are: (1) I miss you. (2) Edward and M. L. returned last night and spent an hour here, looking very well and with much to say. (3) Grace Moilliet, by tact and enterprise, saw both the lying-in-state and the funeral procession. Both Milly and I, each in our several ways, went to Hyde Park to see the *crowd*. It was totally impossible to get near to the route. The crowd was singularly orderly and quiet and all in black. (4) Sir G. Frampton comes to-morrow to see where the bust is to stand and to fix for the pedestal accordingly. (5) The *Times* has a favourable leading article and a long analysis of Miss Elderton's paper about the children of drunkards, which will make Saleeby tear his hair.

All well and happy. Our best loves, F. GALTON.

(6) Miss Jones returned last night.

42, RUTLAND GATE, S.W. *May 31, 1910.*

MY DEAR EVA, I do most thoroughly enter into your happy feelings in this the crowning epoch of your life. Everything seems to combine to enhance its happiness—the air and climate of Italy and the sound of the language, the quiet affection in the convent, the ceremonial at the Vatican, all combining with the great function itself of your entering the church that your temperament most requires. I heartily congratulate you. It is pleasant to me to hear how helpful dear Louisa's relations have proved to you. I have no particular news. Sometimes more, *now* less of asthma—the usual round. A letter I wrote last night to the *Times* joining issue with one of Ray Lankester, is published this morning in biggish type. Miss Elderton and a sister of Miss Jones came yesterday to tea, and such-like events at present complete the round of my daily life. I have now no tearing wants or ambitions. My race has been run, and I have simply to await the close of life.

Milly seems very well and happy. Dim comes towards the end of this week. Miss Jones does all she can, and goes to-day for me to the South Kensington Art Gallery to add something to the tracings from Dance. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *June 26, 1910.*

MY DEAR MILLY, It is well that your stay here has not, after all, interfered with the house-cleaning before your guests arrive. I miss the tapping of your tool for making the papers for the blind, and I often lift up my eyes and, not seeing you on the sofa, wonder for a moment if you are elsewhere in the room. Thank you again for coming. Eva has a "clergyman's" sore throat, brought on she thinks by talking too loud and long to me in eagerness to relate her story. She writes for me now what she wishes to say, but will probably be quite right again in two or three days. Mrs Townsend* is here. She has (while here) three big speeches to make, a masseuse to operate on her, and a weak heart. So she is in her room and takes her meals there most days, quaffing champagne (in moderation) which is her usual drink, and very grateful for the opportunity of being quiet. Beak's† wife was moved to St Mary's Hospital on Thursday. He will be allowed to see her to-day. It appears that a quantity of stale blood has to be drawn from the tumour on her wrist, and that she *may* get well afterwards quickly. Karl Pearson had a large reception last night at the Eugenics Laboratory. I am curious to hear about it. The Academic Registrar of the University of

* Well-known in relation to the "Girls' Friendly Society."

† At this time Galton's valet-nurse.

London (Hartog) called here to explain many matters. The authorities there are *most* friendly to the Laboratory, and, as funds permit, will increase its scope. Hartog is an excellent official, very able and of a very able Jewish family. One of his brothers was Senior Wrangler of his year at Cambridge and another is a distinguished professor in Ireland.

Ever affectionately, FRANCIS GALTON.

[In Evelyne Biggs' handwriting.]

Please thank Dim for her charming letter this morning and for copying out the Rosary so beautifully, it is sweet of her. Thank you also for your nice letter. Eva.

42, RUTLAND GATE, S.W. July 2, 1910.

MY DEAR MILLY, The artistic touch of Mrs St Maur will indeed be grateful to you, and leave abiding results in the garden. Beak's wife is steadily mending. The Doctor made a "culture" of microbes from the contents of the swelling, and injected it as an anti-toxin. She leaves hospital to-day and Beak is absent on the errand of escorting her home. I have had two rather bad days and the Doctor on each, but am now in a fair way of getting well. Thanks for the *Morning Post*. These journalists cannot write a column without blunder. It is so in this case, but I won't go into details. The *novel** has had a long set-back, having found the plot not to be as useful a one as was wanted. I have at last re-cast it in a better form, but written nothing yet. Some of what was written will still serve. I will keep you *au courant*. I expect Miss Elderton every moment for the week-end and have asked a few friends for a Eugenics tea to-morrow. Ploetz, the German author of the paper you kindly looked at for me, and who is in London now about a Race Congress, will come. It is long since I last ventured out of doors, but a convenient alteration has been made in my balcony fittings, which will make going in and out of it still easier. What an extraordinary cavern seems to have been discovered in Crooks' Peak, at Loxton. 300 feet long (as asserted) and wide in proportion. But measurement may greatly reduce the figures. Fancy in digging a deep well, suddenly breaking through the roof of a big cavern and tumbling through!! Eva is quite well again and sends her love.

Ever affectionately yours, FRANCIS GALTON.

42, RUTLAND GATE, S.W. July 11, 1910.

MY DEAR MILLY, Best congratulations on your motor. May it serve you well and safely to others! A dear old dog of Arthur Butler's has just been knocked down by one, much hurt, but they hope not mortally. You do not say who drives you in Guy's absence. Mrs Beak seems to go on well. I told *him* of your inquiries. She has to go weekly to the Hospital to be injected and seen to. Ploetz proved to be a pleasant acquaintance and full of "go." A fair-haired South German. My novel gets on but is quite re-written. I now get up an hour before breakfast and lie down for a bit after. The plan seems to suit well. A particularly good article in the *Westminster Review* on "The Scope of Eugenics," signed by H. J. Laski, was sent me among other Press cuttings. The name was unknown to me, so I wrote to him "Care of the Editor," and hear from Laski this morning in a very nice, modest letter that he is a school-boy at Manchester, aged 17!! It is long since I have been so much astonished. The lad has probably a great future before him and he will make a mark if he sticks to Eugenics, which he says has been his passion for two years. I as yet know nothing more about him, but hope to learn. Gertrude Butler has been staying for a few days with us. She and Eva get on very well indeed together.

You on the West Coast have sunnier weather than we have. I have not been able to get out for a full fortnight, more than once, and that only for half-an-hour, on the balcony. How good *strawberries* are this year! Best loves to you all.

Ever affectionately, FRANCIS GALTON.

* This is the first mention in a letter to Mrs Lethbridge of Galton's Utopia, *Kantsaywhere*. It had clearly been a topic of conversation between Sir Francis and his niece during her visit to Rutland Gate in May and June of this year. The first idea of the "Eugenic State" appears to have come to Galton in 1901, for I find in a note-book of that year, taken to the Riviera, the draft of the family characteristics and a description of the home of the "Donoghues of Dunno Weir" ("Don't-know-who's of Don't-know-where"). Galton had obviously been planning his Utopia for *nine* years. It was thus not a mere hasty product of his last days.

42, RUTLAND GATE, S.W. July 19, 1910.

MY DEAR MILLY, You have indeed a full programme. May the weather befriend the motor trip. I have practically taken a house near Haslemere for either a month or six weeks. It has a Roman Catholic chapel attached to it, for the use of which we pay in the rent! It is called "The Court, Grayshott, Haslemere, Surrey," and has excellent grounds and roads for my arm-chair on wheels. No news worth recording. My novel gets on and I live a new life with its characters. I have often read of this faculty but never experienced it before. An uncommonly neat and well got-up German translation of my *Hereditary Genius* has been published. It was translated by Dr Neurath of Vienna, aided by a Dr Lady of the same name*, presumably a near relation. Grace Moilliet comes to us early in August, and that is all that occurs to me to tell. I had a long morning in the Park to-day. Best loves to you all.

Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. July 31, 1910.

MY DEAR MILLY, I do indeed sympathise with your having to forgo the long desired motor expedition to Tregear. Perhaps it will come off after all when the bad colds are gone. An efficient ex-chief examiner of the Civil Service asked me whether I knew that the word "Whisky" appeared in the Bible? As I did not, he referred me to the 2nd chapter and 3rd verse of Hezekiah. Is it new to you, to Amy, to Guy, and to Hugh? When you write again, tell me the result; ask them *separately*. Our move approaches. In little more than a fortnight's time we ought to be settled at Haslemere, or rather Grayshott, which is in a different county, viz. in Hampshire. Haslemere is very near to the border of Surrey and Grayshott is over it. My cough has departed and now I am at "my usual" again, and have recommenced daily trundles in Kensington Gardens. Three Butler nephews have taken their several leaves, one to be a guest of a wealthy admirer in Canada (or ? the U.S.A.) for his holiday. Another for three weeks in the Auvergne country, and who will report on the state of dear Louisa's grave. Another, Ralph, to be assistant to the *Times* correspondent in Berlin, and I should add Harcourt, who will soon return to India, as a newly elected member of the Viceroy's Council. He has been made much of by people in high places and among others was struck by the keen interest of the King in Indian affairs. Howard Galton and his wife have just had tea here. He sticks to his story that the very oldest will in Somerset House is that of a Galton progenitor and that the wills of all his descendants are there in unbroken succession. The history of the first part of this is that the wills were registered at Old Sarum and that the earlier collection was transferred in recent years to Somerset House. There are hundreds of letters preserved at Hadzor that relate to the Galton family, who were not Quakers till after they settled in Birmingham †. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. August 7, 1910.

MY DEAR MILLY, Did any of you really look in the Bible for "Hezekiah"? I hope they did!! That is the fun of the thing. I should not have attempted such a "sell" without the prefix of the "Chief Examiner," which is literally true. It was G. G. Butler. *Gladstone* could not see the fun of the story about the Austrian Archduchess and her successful lottery ticket of No. 28. She had been inquiring everywhere for the holder of the then sold No. 28 and bought it back at much cost, and, lo and behold, No. 28 did really win the big prize. Her friends clustered round, begging to know her secret of divination. At last she said: "Well, I will tell you. I had dreamt it was 9, but said to myself 'a mere dream is nothing.' The next night, I again dreamt it was 9. Then I thought, this is becoming serious.—What will happen on the third night? It was 9 again. So I said 'as 3 times 9 is 28, that must be the lucky number; and so it was.'" Gladstone, who had no more fun in him than an average Scotchman, simply

* The title of the translation is *Genie und Vererbung von Francis Galton*, Autorisierte Übersetzung von Dr Otto Neurath und Dr Anna Schapire-Neurath. It was issued in 1910 by Werner Klinkhardt in his Vienna *Philosophisch-soziologische Bücherei* as Bd. xix. The translators inscribed the copy sent to Francis Galton: "Dem Meister der Eugenik in Verehrung." O. Neurath u. A. Schapire-Neurath, Wien im Juli, 1910.

† I think this should at least read, "till after they settled in Bristol."

stared and said "but 3 times 9 is 27," which caused roars of laughter among the company, one of whom told me the story, which Gladstone himself was quite incapable of appreciating. Eva goes to Grayshott on Tuesday to lunch with my hostess and to learn about sundry details. My wonderful boy Jew, Laski by name, came here with his brother to tea. Eva was out, but Miss Savile fortunately called and did the necessary. The boy is simply beautiful. She is an artist and quite agreed. He is perfectly nice and quiet in his manners. Many prodigies fail, but this one seems to have stamina and purpose, and is not excitable, so he ought to make a mark. The two boys are grandsons of a famous Russian Rabbi, a mystic and a great Kabbálist. They told me much about the Kabbála; how only the initiated in it know the proper pronounciation of Jahveh. I told them about Professor Robertson Smith, who knew it, and on pronouncing it before a great Rabbi visitor at Cambridge was cursed by him from the crown of his head to the soles of his feet, and withered and died within three months!

Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. Sunday, August 15th, 1910.

MY DEAR MILLY, I write full early, as to-morrow will be a busy time, though indeed I do next to nothing except saying "yes" or "no" when asked whether or no a particular thing is to be taken. Did you happen to read in one of Lord Morley's recent speeches that he looked upon having to say "yes" or "no" as the hardest part of his duties? In my case, I leave things very much to Eva, who works hard for me. I have been below par last week through the forceps of a dentist. The tooth had done good service for eighty-one years, so it was a moral as well as a physical shock to lose it. I am just going out for the first time for many days in my bath-chair into the park; among other things, to look at the four big beds of Galtonias by the Albert Memorial. They were beginning to flower when I saw them last a week ago. We start on Tuesday afternoon by motor for The Court, Grayshott, Haslemere, Surrey, which according to the Post Office Guide is the correct address. Please when you next write, send to that address.

The past week has been, as you have recollected, one of sad memories to me. One of the young Butlers is now in Brittany for a tour in Auvergne, and will visit the cemetery and report. The death was in 1897, thirteen years ago! I had a miserable week after, sorting out dear Louisa's trinkets, etc., but all her family were most helpful and affectionate. Harcourt Butler came two days ago to say good-bye. He starts in a day or two for India. He is given the control of education and sanitation, with his seat on the Legislative Council. It is a five-year appointment, that which he vacated was more important, but it was, I believe, terminable with the tenure of the Vice-Royalty. So he gains in one important way. He had 150 persons on his staff!! He is fairly satisfied with the interest and knowledge of influential persons about Indian matters. The King especially was keen and full of memories. Lord Morley seemed rather despotic, he thought. What an amusing story about your small American grandchild and the galloping pony! Best loves to you all. Ever affectionately, FRANCIS GALTON.

I have seen the Galtonias, which are good in a way, but warm rain and sun are wanted to plump them out.

(Post-card.) THE COURT, GRAYSHOTT, HASLEMERE. August 23, 1910.

MY DEAR MILLY, I am so asthmatic that you must excuse this card. We are in a beautiful and spacious house, high up, but for all that my asthma has been bad. I was in bed all day on Wednesday, and again all yesterday and some other half-days. But every now and then, it suddenly goes and I breathe freely. Some kind friends came on Friday and I was able to enjoy tea with them. One of the visitors was Captain Lyons, F.R.S., the retiring Surveyor-General of Egypt, who is full of interesting information. His work is reputed to be of the most thorough order. The plan of my novelette has been often altered, but is, I think, approaching its final form. I hope that Guy's fever is passing off. With best loves.

Ever affectionately, FRANCIS GALTON.

THE COURT, GRAYSHOTT, HASLEMERE. August 26, 1910.

DEAR LASKI, Were I to rewrite now the extract which you quote I should alter it. The exceptions I had then in mind were the large families of many conspicuous personages. Thus Maria Theresa had sixteen children. Of those of very modern times the Kaiser has a large family, and so on. The question might be usefully discussed by comparing the size of the families of

newly created peers with those of other persons of the same date. The data for this are easy to get. A great error, for which I am partly to blame, has been in laying too much stress on breeding from the *very highest*. If the matter were so simple as to be reducible to this form:—such and such a sum is available to induce persons to marry, is it best policy to spend it on the few very best or to distribute it more widely? In that simple case the former of the two alternatives would be best. But the case to be dealt with is different. It is largely a question of social approbation or the reverse. I am thinking of writing on this subject and am getting the plan of what I want to say in a clear shape, before beginning. Anyhow, it would be excellent eugenic policy to favour the marriage of those who are somewhat but not necessarily much more likely than the rest to produce capable citizens. The average level might thus be raised a grade or two, with little difficulty, and sports from that level, two or three grades higher than it, would be common and would produce very able men. Whereas an equally high deviation from the lower level would be very rare. (By “grade” I have the Probable Error in mind.) Excuse more; I have had rather bad asthmatic troubles since arriving here, but am “at my usual” to-day, or nearly so. Very faithfully yours, FRANCIS GALTON.

THE COURT, GRAYSHOTT, HASLEMERE. *August 31, 1910.*

MY DEAR MILLY, Again I am late in writing and cannot excuse myself, especially as I am materially better (for the while), having thrown off I know not what, but anyhow a sense of illness and much asthma. We are house-hunting for the winter and know of likely ones, but have not yet seen all. I go to one in a quarter-of-an-hour with my nurse and a light carrying-chair on the box of a victoria, Eva and myself inside. I trundled in my bath-chair to one this morning, which had in its garden “a grove” of Galtonias. We are 800 feet high hereabouts. Edward Wheler was with us last Saturday–Sunday, looking very well. I am simply without news or anything of interest to tell you. I expect that Bob Butler will be at Clermont-Ferrand to-day. He will report to me about the grave*. He is a very nice young fellow, working at architecture, a son of Professor Stanley Butler of St Andrews, who is a nephew of Louisa, being a son of her brother George and of Josephine. He has been *via* Brittany and Angoulême, looking at wonderful architecture. His first stage from England was to *Chartres*, the finest, some say, of all cathedrals. We saw two old Bordighera friends yesterday and heard much of it from them. But this is all dull to you and, besides, it is written very badly, so I will stop short. With best loves to you all. Ever affectionately, FRANCIS GALTON.

THE COURT, GRAYSHOTT, HASLEMERE. *September 6, 1910.*

MY DEAR MILLY, I am late again in writing. The Frank Butlers and their last baby were here for the week-end, and there are *two* tempting houses to be had. I was to have gone to decide this very morning, but Eva is shut up in bed with a chill and I am rather afraid of the sunless cold of the day. I wish you had told me more of your impressions of Loxton, which I shall never see again. I often think of Erasmus, whose sterling qualities came out strongest towards the last. I have heard very favourably about the grave at Clermont-Ferrand, from Bob Butler, whose real Xtian name I doubt, but he “answers” to Bob. He will be here next week-end and will tell me more, but anyhow the grave is well attended to by the gardener there whom I pay for doing it, and the rose bushes by it are described as very pretty. A lady resident at Clermont-Ferrand, who taught French to Eva and who came frequently and with whom we have corresponded, looks after it from time to time. I have been occasionally not over well and done nothing, but as soon as this scribble is finished I shall begin again upon *Kantsaywhere*. How do your birds thrive? I was touched by the confidence of a *wren* here, who hopped about my feet while I was seated in the garden in front of a dense hedge. She popped in and out but brought none of her belongings with her. Oh—this horrid coming winter! I am about 750 feet above sea-level and one of the two houses is about 50 feet higher and the other as much lower, but they are well sheltered and look due South. Best loves.

Ever very affectionately, FRANCIS GALTON.

* That of his wife, Louisa Galton (née Butler).

THE COURT, GRAYSHOTT, HASLEMERE. *September 19, 1910.*

MY DEAR MILLY, Your sick list is sad. I hope Guy got comfortably to Loxton. Tell me the latest news about the well. Did you happen to see in the Obituary, or hear from Claverdon, of their sad adventure—of their friend, Mr Aylmer, *dying* at their house? I know no particulars yet. So Hugh is to be a curate in Exeter, good fortune to him! Devonshire air is certainly relaxing to most strangers, but what tough and hardy men have come from there! And Hugh is quasi-Devonshire in origin, having been reared just over the border. Beak's* wife is a slow case, but she is working towards the good, though it appears that her arm is permanently crippled. She is tortured by having it twisted and stretched weekly to prevent, I suppose, adhesions, and goes to the Hospital for the purpose. Bob Butler has been with us for the week-end and told us much about his tour besides Clermont-Ferrand. He is very observant and is already an advanced student in architecture. The country West and South-West of Auvergne has many architectural interests and some imposing situations, of which Rocamadour is one. It is built *against* a steep cliff, near its top. He and Eva went to London early this morning. She to inspect doings at Rutland Gate and to bring some things back with her. A rather pretty girl called here with her people, she wore a big hat at which I exclaimed saying it was as long round as she was tall. She wouldn't believe it, but it appears that on going home the measurements were made and I was right as she confessed yesterday, when she called with a still more absurd hat than before on her head. It was not so large but shaped like a cask. What absurdities abound just now. The *Times* will begin a weekly supplement of ladies' fashions in November, I believe.

My old friend, General Sir Richard Strachey, was a famous Engineer Officer, and once upon a time when in a very out-of-the-way part of India his wife suddenly required a smart dress for some important function. He rose to the occasion and drew a pattern for it with the same care that he would have taken over the plan of a fortress and the gown proved a success. At least *he* said so. With loves to you all. Ever affectionately, FRANCIS GALTON.



It will be nice to have you both here, first Dim and subsequently you. Has the motor yet arrived? Of course you can do little with it while the gardener is ill.

THE COURT, GRAYSHOTT, HASLEMERE. *September 28, 1910.*

MY DEAR MILLY, Again I am late and without valid excuse! Beak is just off to fetch his wife here for a week or fortnight's fresh air and good food. We are going on as usual. What a tragedy it was at Claverdon. I hope M. L. does not suffer really much from her rheumatism, but the Harrogate treatment seems drastic. At the temperature of her air baths not only would a cup of water boil in her hands but a joint would roast and turn brown. I grieve at Lucy Cameron Galton's bad carbuncle. They ought to go to Bordighera in less than a month, but an actual or possible carbuncle is a bad travelling companion, and one never knows when the risk of a new one is over. I had a pleasant letter this morning from Mary Spencer Butler. Her son (the lame one), Geoffrey, has been having a lovely time in America. The equivalent there to our "Leader of the Parliamentary Bar" wanted a young Englishman as a guest, and hearing of Geoffrey and that he was looking out for a vacation pupil, invited him to his house and has taken care of him in every way, introducing him right and left and having him at a camp, where they live the so-called "simple life." The only ill-luck he had was through a mis-directed letter from Roosevelt, asking him to stay a day or two with him. It was directed to Geoffrey *Baker* instead of Butler. This from M. L. to finish up with: *Scene*, Breakfast table, a small boy and his nurse who is reading the *Christian Herald*. *Boy*: "Nanny, I don't like this egg." *Nurse*, without looking up: "Be a good child and eat it." *Boy*, after a while: "May I leave half of it?" *Nurse*: "No, be good, eat it all up." *Boy*, after another pause: "Nanny, must I eat the *beak*?" Best loves, affectionately, FRANCIS GALTON.

THE COURT, GRAYSHOTT, HASLEMERE. *October 3, 1910.*

MY DEAR MILLY, Your account of Olympe† is pitiful. I am vegetating on pretty happily, only vegetables don't cough in spasms and require cigarettes either of haschisch or of stramo-

* Galton's valet-nurse.

† Olympe Chapuis, a little Swiss girl who came as companion to Millicent Bunbury. She eventually married the Rev. T. K. Lethbridge.

nium to allay them, as I do. Our few peaches have just come to an end, but hope remains that six nectarines, still on their tree, will consent to ripen. We had an orange-coloured *turnip* for lunch to-day. I had never seen one before. It tasted just like a white one.

How is Bob getting on in Wall Street? Does he dream of millions? Geoffrey Butler is expected back this week from America with plenty to tell. His host took every care of him and he saw many people.....I weary myself with devising a workable constitution for *Kantsawa*. After writing ever so much I find over and over again that some arrangement won't work rightly and everything has to be altered. I live quite as much in *Kantsawa* as I do in Haslemere. I go there continually, as on a villeggiatura by a suburban train. But I find it changed at every successive visit, and demolished quarters have to be replanned and rebuilt. It is very cheap to build castles in the air. With all loves. Ever affectionately, FRANCIS GALTON.

THE COURT, GRAYSHOTT, HASLEMERE. October 5, 1910.

MY DEAR LEONARD DARWIN, I can't help in solving your question. The answer must greatly depend on *where* the people live and *how*. In many villages, notably Scotch sea-shore ones, the fisherfolk never marry outside their immediate neighbourhood. In such an extreme case the number of their forefathers, any number of generations back, would hardly exceed that of the present villagers. On the other hand, a migratory population might have greatly intermarried with outsiders.

PROBLEM. Noah and his wife have an increasing number of descendants during n generations; find the r^{th} generation in which the number of ancestors is largest. (Assume the problem in its utmost simplicity of every 100 persons becoming $100 + a$ in the next generation)—the figure is something of this sort. I worked it out once, but forget the result, except that r was *not* $n/2$.

We are settled in the Hindhead district for the winter, in the above house till Nov. 15, and then in another close by. I pull on—sometimes rather badly, often rather well, but very infirm always, and am wheeled about and carried up and down stairs. But I have nothing to complain of. I sleep like Morpheus and enjoy a chastened dietary, and have had my day.

I hear, from time to time, personal and scientific news from men like Sir A. Geikie, who lives within a distant reach and there are many nice people about. My niece takes excellent care of me. The village is not far off where the following occurred—told me by the Vicar's son:

Vicar. "Why, Mary, is the old woman dead at last? she seemed to me fairly well yesterday."

Mary. "Yes, sir. Her cough had been bad and noisy at nights for long, and Jim said to me last night, 'I can't abide that cough; get up, Mary, and put the pillow on your Mother!' So I got up and put the pillow on her, and she was that weak, her spirit flew away like a bird."

Bhang—(Haschisch)—in cigarettes is, I find, a great solace in fits of bad asthma and cough.

How good the photographs are in the *Royal Geographical Journal*. You will be hard at work soon with those stirring people. Remember me please most kindly to your wife and two brothers now with you. Ever sincerely yours, FRANCIS GALTON.

THE COURT, GRAYSHOTT, HASLEMERE. October 8, 1910.

MY DEAR MILLY, Dim left us this morning perfectly well. I wish she could have stayed longer. I had a "private" note last week from the President of the Royal Society to say that the Council had awarded me the Copley Medal, but that it was not to be publicly announced yet; it is, however, in the newspapers to-day! It is the "blue ribbon" of the scientific world, and I am of course deeply gratified. One is awarded annually, without distinction of *nationality* or of *time* when the scientific work was done, whether lately or some years back. As a fact, an Englishman gets the Medal not quite so often as once in two years. About five other living Englishmen have it. People are always very kind to me, but I wish my Father and Emma were alive. It would have given them real pleasure. We move to the new house in a month's time. Eva is off for the day to her old friend the blind Mrs A'Court.

Ever affectionately, FRANCIS GALTON.

What a nuisance about your motor! What a shameful blot!!

THE COURT, GRAYSHOTT, HASLEMERE. *October 16, 1910.*

MY DEAR MILLY, I am glad that you are safe home, though it be to a wind-wrecked garden, after so long and adventurous a journey. Did the motor go well? You had, I think, not a little beautiful weather. Lynton I know well, having spent a summer there with Louisa. That wonderful river teems with salmon. They pointed out a pool in it not much bigger than my drawing-room, so far as I recollect, out of which sixteen had been caught in the preceding year. They called it the "Slaughter Pool." It is wonderfully beautiful thereabouts, as you say. I am glad you liked the improvements at Tregear. When such things *really* improve a well-known place how charming they are. This is the case with Claverdon, which I shall never see again! nor any of my old haunts, being so tied up by infirmity. Asthma comes and goes and I have frequent long respites, but it is always *en cache*, ready to spring. My *Kantsaywhere* gets on slowly, but I think surely at last. I want the Abbé Sièyes (spelling!)* to put its constitution into the best shape. I find it difficult to evolve a stable one out of nothing. Are your birds beginning to migrate? Ours have gone through various pranks. They seemed to be pairing again, mistaking the fine autumn for next spring. As I write, four of the plumpest of blackbirds are hopping in front of my window. I think it would be nice if they had been 24 and if the cook could make them up in a pie, at the same time putting a complete stop to their singing! Poor Portugal! The making of a respectable nation out there seems as difficult as that of a silk purse out of a sow's ear. But there *may* be good stuff left in their most ignorant peasants, though very little in their politicians. I have a Press cutting from New Zealand from which it appears that the Chief Justice, Sir Robert Stout, in his charge to the Grand Jury at the Autumn Sessions in Auckland, advocated the formation of Eugenics Societies, and that much is being done in that way there. I have forwarded the cutting to the Eugenics Education Society for them to keep the ball rolling.

Ever affectionately, with loves to all, FRANCIS GALTON.

THE COURT, GRAYSHOTT, HASLEMERE. *October 19, 1910.*

MY DEAR EVA, Your news of the acting is most gratifying. I saw in yesterday's paper that there were to be four Rosalinds this week and two of each of the male actors. The purpose is of course to test their relative merits.

Here is another gratifying incident. A long letter from Lionel Robinson describing how he and his wife had just attended service at St Margaret's, Westminster, where he heard Professor Inge preach on Eugenics. You know that L. Robinson is far from a gushing man but he fairly gushed over the sermon. He says it was "not only bold and eloquent but carried reflection if not conviction to every listener." Though he "had heard him on a previous occasion he never seemed so clear and attractive as then. He made no shifty evasions and spoke with startling clearness on many points which preachers as a rule evade or dilute beyond taste. My wife was delighted with the sermon," etc., etc. You shall see his letter. I will write to him.

Dakyns came yesterday and asked after you. He will gladly revise the MS. of *Kantsawah* which in a provisional sense has been finished. But I must interpolate some pages before sending it to the typist. Thus far, it would fill 17 pages of a magazine like the *Nineteenth Century*.

It is now sunny but uncertain. Whether it be fit for me to do more than trundle will be doubtful until after lunch. Yes, if it can easily be managed by the servants, ask Mrs Stanley Butler and Bob for the night as you propose. I am so glad you approve of Louisa and Mrs Phillips. Your bottle of Chianti was very characteristic!

Ever affectionately, FRANCIS GALTON.

Miss Jones is excellent, gives no trouble and writes from my dictation with almost short-hand swiftness.

* Galton is clearly referring to Comte E. J. Sièyes, the man trained as a Cleric, but he was one who had never preached nor confessed. He was the great constitution framer at the time of the French Revolution and after.

THE COURT, GRAYSHOTT, HASLEMERE. *October 23, 1910.*

MY DEAR MILLY, Eva returned yesterday and sends her love. We shall be so glad when the time arrives to see Dim. I have at last finished *Kantsaywhere*, if that be the best orthography. Miss Jones has been staying here during Eva's absence and copied it in fair writing. But I must keep it by for a little while and add and alter before sending it to be typed. Then I must ask you and other friends to kindly read and criticise. It would now fill about 20 to 30 pages of *Nineteenth Century* size and type. I have no news except of an invalid sort, so will not bother you with that. I quite agree with you that the re-visiting places one has known well is usually disappointing. The personal element has changed, and that counts for much more than one had anticipated. The feeling that a once familiar place "knows one no more" is disheartening. I am glad your motor went so well and falsified the grim remarks of the natives about the character of the roadway in front. I wonder whether Switzerland is all round such a good place as many say it is. The owner of the house we have rented for the winter is Swiss, named Le Pury, a very nice man. He married a daughter of Mr Whitaker, the big vine-grower of Marsala, in Sicily. He too has a big house whose grounds adjoin Le Pury's. Good-bye, loves all round. Ever affectionately, FRANCIS GALTON.

AMERICAN BREEDERS' ASSOCIATION—EUGENICS SECTION. EUGENICS RECORD OFFICE,
COLD SPRING HARBOR, LONG ISLAND, N.Y. *October 26, 1910.*

MY DEAR GALTON, Your post-card of Oct. 14 just received. I thank you for taking the trouble to reply. You must think me a nuisance to add thus even a letter to your correspondence. But I must tell you of recent events here. As the enclosed printed matter will show in some detail, there has been started here a Record Office in *Eugenics*; so you see the seed sown by you is still sprouting in distant countries. And there is great interest in Eugenics in America, I can assure you.

We have a plot of ground of 80 acres, near New York City, and a house with a fireproof addition for our records. We have a Superintendent, a stenographer and two helpers, besides six trained field-workers. These are all associated with the Station for Experimental Evolution, which supplies experimental evidence of the methods of heredity. We have a satisfactory income for a beginning and have established very cordial relations with institutions for imbeciles, epileptics, insane and criminals. We are studying communities with high consanguinity also. Altogether the work is developing in a satisfactory and interesting manner. We have thought that, though our work is mostly in "negative eugenics," we should put ourselves in a position to give positive advice. We cannot urge all persons with a defect not to marry, for that would imply *most* people, I imagine, but we hope to be able to say, "despite your defect you can have sound offspring if you will marry thus-and-so."

I want to tell you how much I have enjoyed reading your autobiography. You have quite put yourself into it, and that makes it much more valuable than any "Life" by another hand. It would please you to realise how universal is the recognition in this country of your position as the founder of the Science of Eugenics. And, I think, as the years go by, humanity will more and more appreciate its debt to you. In this country we have run "charity" mad. Now, a revulsion of feeling is coming about, and people are turning to your teaching. With best wishes for continued strength and health, and with the expression of my profound esteem.

Yours faithfully, CHAS. B. DAVENPORT.

THE COURT, GRAYSHOTT, HASLEMERE. *November 1, 1910.*

MY DEAR MILLY, This will, I suppose, reach you about the time when Dim starts. We shall welcome her with all pleasure. Winter is now at the door. Giff is for the moment in London looking out the warm winter clothing and we migrate to "Grayshott House" on the 15th. That beastly *Kantsaywhere* (or whatever its name is to be) has been delayed by a 2½ days illness of mine in bed. I am quite "at my usual," however, to-day. Some *talkers* knocked me over. It is odd how invariably one of these asthmas follows *any* form of fatigue, mental, vocal or otherwise bodily. The Doctor here, Lyndon, is as capable a man as could be found anywhere, which is a comfort. Do you care for the present Poet Laureate, A. Austin? Few do. This story against him was told me yesterday by the President of the Royal Society (Sir A. Geikie). It appears that the Scotch Judge, Lord Young, was noted for his sharp sayings. He met

Austin and said, "Well, have you been writing any more poems?" Austin replied, "Yes, a little; you know one must keep the wolves from the door." "How did you do it?" said Lord Young, "Was it by reading your poems to 'em?"!! What a contrast between Austin and his predecessor Tennyson. Ever affectionately, FRANCIS GALTON.

42, RUTLAND GATE, S.W. *November 5, 1910.*

MY DEAR MELDOLA, Excuse my not writing with my own hand. I am very glad that you are going to do justice to Herbert Spencer as an investigator, but I cannot help you with facts about it. I know of course about his experiments on the effect of wind on the upthrow of sap, but do not know where the account of the experiments is published. I feel myself unable to help you, as I wish I could. As regards his influence on contemporary science I feel it is small; on my own work it has been nil, but Romanes ascribed the idea of his beautiful experiments on the formation of nerves on medusae wholly to Spencer's published views. What a sad scene it was at Golder's Green*.

I am very infirm and have taken a house for the winter near Hindhead.

Ever sincerely yours, FRANCIS GALTON.

GRAYSHOTT HOUSE, HASLEMERE. *December 8, 1910.*

MY DEAR MELDOLA, Best congratulations on D.Sc., or Sc.D., as the case may be. It has been long deferred.

The enclosed letter is one you may like to read, and will I think sympathise with. Poor Collins; he gave, I know, much assistance to H. Spencer in revising MS., but my knowledge of this is not accurate enough to warrant my writing an obituary paragraph about him. Possibly you might be able and inclined to do so. His death *was* noticed in *Nature*, Dec. 1st, p. 146, 1st column.

I wrote to Miss Killick and mentioned that I had forwarded her letter to you. Poor Collins! His life was tragical. Extraordinary physical powers, shown in his first attempt at Alpine climbing; then, arm-chair-ridden by pleurisy. Next, an unhappy event in which the *She* was not to blame. Then, frequent failures to do good intellectual work, all combined with the most unselfish and eager wish to help others, by revising and criticising, which *within limits* he could do well.

Requiescat in pace. If you see your way to writing a brief memorial paragraph to the *Times*, poor Miss Killick would rejoice.

Please send me back her letter. I am wintering here, being now far too infirm for London fogs, etc. Very faithfully yours, FRANCIS GALTON.

GRAYSHOTT HOUSE, HASLEMERE. *November 13, 1910.*

(This will henceforth be my address.)

MY DEAR MILLY, Thanks for congratulations. Sir George Darwin will receive the medal for me on the 30th. People are very kind about it. There are only five other Englishmen alive who have received it: (1) Sir Joseph Hooker (Botany), (2) Lord Lister (Antiseptics), (3) Lord Rayleigh (Mathematical Physics), (4) Sir William Crookes (Molecular Physics and Radiometry), (5) Alfred R. Wallace (Zoology and Darwinism). I have pretty nearly finished *Kantsaywhere* in typewriting; but shall lay it by when quite finished for yet further revision, and then have two typed clean copies for friends to criticise, you to be one of them of course. I have no news. The weather has turned chilly and, according to advice, I spent most of yesterday in bed. They say it will be good economy if I lie up one day per week, selecting a nasty day, as yesterday was, for the purpose. We move on Tuesday. Love to those of your party who are at home. Guy wrote me a letter of congratulations from which I gather he is now at Claverdon, whence two fat pheasants have reached me. One is just eaten—so good!

Ever affectionately, FRANCIS GALTON.

* Galton's account of Herbert Spencer's cremation, which would have had historical interest, seems to have perished. I have added at the end of this Chapter his reminiscences of Spencer, found in rough draft among his papers: see p. 626.

GRAYSHOTT HOUSE, HASLEMERE, SURREY. *November 29, 1910.*

MY DEAR MILLY, There is nothing to say, the ups and downs of invalidism interest none except the persons concerned. I have been down and am up again, "le vieux (mieux) persiste." To-morrow the Copley Medal is given. The papers are too full of politics for anything about the Royal Society to be inserted beyond bare facts. It is very nice of Sir George Darwin to receive it for me. This morning's post brought the neatly typed *Kantsaywhere* revised and done up in book form. Methuen comes here if he can on Sunday or Monday afternoon, so I must keep it for him. This is, I expect, just the most awkward time for new publications, politics and Xmas both in front. I shall soon know more about all this. The Edward Whelers come here for two or three days about Xmas, and I shall hear much I hope then about Claverdon and Loxton. This house proves quite a success, but I have been very little out of doors, not at all of late.

Excuse if you can this extra dull letter and believe me all the same,

Ever affectionately yours, FRANCIS GALTON.

HIGHER COMBE, HASLEMERE, SURREY. *December 2, 1910.*

MY DEAR SIR FRANCIS, I very much enjoyed Professor Donoghue's account of *Kantsaywhere* yesterday. I like the additions, particularly about the resemblance of the young women to Guido's Hours. Wouldn't a reproduction of the engraving or a photogravure of the picture make a pretty frontispiece to the book? I hope you didn't bother over my minute criticisms. I can't recall the particular sentence verbatim where I boggled over the grammatical form, the sense being plain enough. "Its absence etc..." I wonder if "Its freedom from..." or "immunity from..." would please me better. I am looking forward to my next visit, but I find on Tuesday, Wednesday and Thursday I have to be in London. So it must be Monday?? or Friday? Perhaps Miss Biggs would kindly let me know if Friday suits.

Yours affectionately, H. GRAHAM DAKYNS.

Or that failing—Monday. You will have seen Methuen by that time.

GRAYSHOTT HOUSE, HASLEMERE, SURREY. *December 6, 1910.*

MY DEAR MILLY, Thanks many for all you say. The President of the Royal Society had tea here yesterday. I don't think I told you his last story, viz. that at the recent University celebrations in Liverpool, he stayed at Knowsley (Lord Derby) where Lord Morley and Lord Rosebery also were. He overheard this bit of conversation between them. *Rosebery*: Do you play at cards? *Morley*: No, it has never been my taste. *Rosebery*: But your Cabinet is keen upon a game, namely "Beggars your neighbour." Lord Morley tried to reply, but could not find a rejoinder. What a storm in politics. There must arrive a time for compromise. If so, I hope they will combine to diminish the Irish vote. The late Liberal candidate for this place, Methuen the publisher, had tea here two days ago. He asserts that Lloyd George has an extraordinary charm of manner in conversation, and that Lord —, at the Conference, who is a stubborn Tory and hates him politically like Satan, was quite won over by him socially after three meetings. I doubt whether Methuen will take *Kantsaywhere*. I showed it to him and asked him to submit it to his reader, which he said he would do and ultimately marched off with it, but at first sight he was very dubious. He takes no interest in Eugenics. I have not ventured out of doors for a whole fortnight and crave somewhat for fresh air. Much love to you all.

Ever affectionately, FRANCIS GALTON.

Eva is in bed, recovering fast from a sudden chill (of no real consequence).

GRAYSHOTT HOUSE, HASLEMERE, SURREY. *December 11, 1910.*

MY DEAR MILLY, Methuen came to tea on Monday and took *Kantsaywhere* with him to submit it to his reader. He was not at all taken with the idea at first sight and may more likely than not decline it. We shall shortly see. What an inconclusive pother this election has stirred up. I wish both parties would agree to dock off the disproportionate number of Irish electors. They are a nuisance to both sides in turn. Nothing has occurred this week worth telling. I have not ventured out of doors for nearly a month. It *will* be a month next Tuesday. The Doctor inspects me and gossips once a week. I am grievously distressed at

the tragic death of Sir Archibald Geikie's only son. I am glad the Coroner returned "accidental death." I never saw him nor any of his three gifted sisters nor his mother (who is mostly unwell), who live in Haslemere, though his father kindly comes pretty often and tells me scientific news. I write supposing you have seen what I am writing about in the newspapers. What a strange commercial world it now is. The defeated candidate here on the Liberal side is Davy, a son of the late great lawyer, Lord Davy, whom I used to know well. His income is derived from an agency to an American firm for making bandoliers for soldiers, on a principle that is partly patented, partly secret. The cylinders that hold the cartridges are woven together with the belt and so cannot come off. The firm has acquired the monopoly of supply, not only to the American and to our Armies, but also to most of the big continental nations. Each belt costs 2s. to make and is sold for £1. This was Methuen's story to me. He is a keen business man and stood as the Liberal candidate here last year, just as Davy is doing now; so probably his story is quite correct. Good bye, it is too early yet to send Xmas wishes; they shall go later. Eva, who has been shut up during the last week, is off to her Catholic chapel. She looks quite well, but the K is a little painful at times.

Ever affectionately, with loves to you all, FRANCIS GALTON.

GRAYSHOTT HOUSE, HASLEMERE, SURREY. *December 20, 1910.*

DEAR MR PERRY COSTE, Excuse writing by dictation. I return your very interesting account of your boy's colour-faculty. A very great deal has been written on the subject, especially in America, so it is not surprising that *Nature* is not able to find room for it, but I hope it will ultimately be utilised in some other way. You do not mention *how* the boy sees the colours, are they in coloured figures? or are they black or white figures on a coloured ground? or is there no figure at all, but a sense of colour conveyed by the sound alone? I think you ought to get this clear, even at the cost of making the boy somewhat introspective. There *must* be some explanation of the reason why particular colours adhere so readily to the several figures, but the whole thing is very mysterious as yet.

I hope you are all well at Polperro. I am grown infirm and have to winter out of town.

I hear from Karl Pearson frequently, and hope to have him here shortly for one night; he has done a truly great work. Very sincerely yours, FRANCIS GALTON.

GRAYSHOTT HOUSE, HASLEMERE, SURREY. *December 28, 1910.*

MY DEAR MILLY, (What a blot!) You and Guy more especially must have had a wretched time of floods and tempests. We on the high ground feel like Noah on Ararat. Edward Wheler left us yesterday for a night at Loxton and M. L. leaves us to-day. The glorious frosty sunshine of this morning picks me up. I have been "throaty" and obliged to rest a good deal. Karl Pearson comes this afternoon for one night. I am saving my voice for him. *Kantsaywhere* must be smothered or be superseded. It has been an amusement and has cleared my thoughts to write it. So now let it go to "Wont-say-where." My very best New Year wishes to all of you and best love. Ever affectionately yours, FRANCIS GALTON.

GRAYSHOTT HOUSE, HASLEMERE, SURREY. *January 2, 1911.*

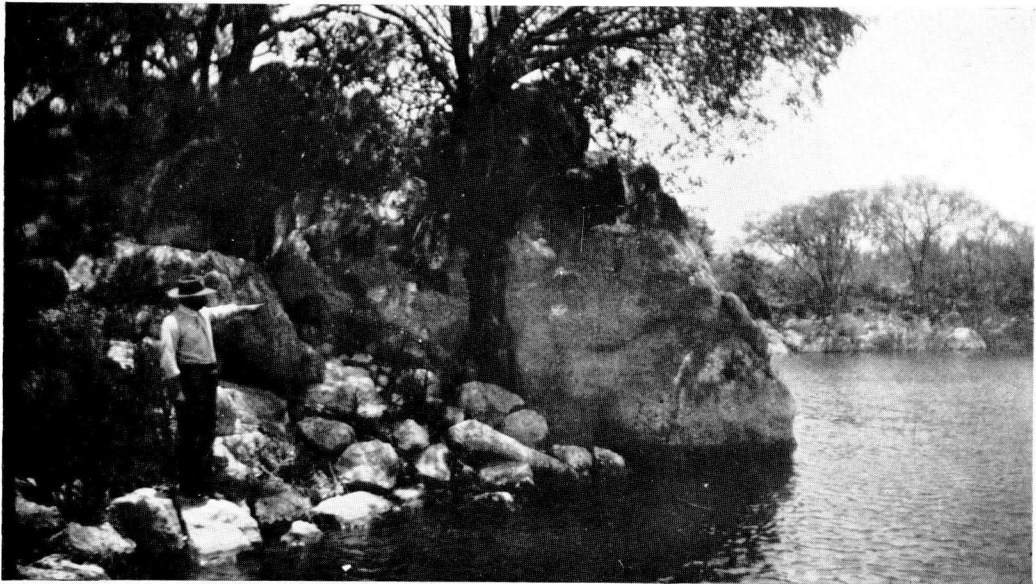
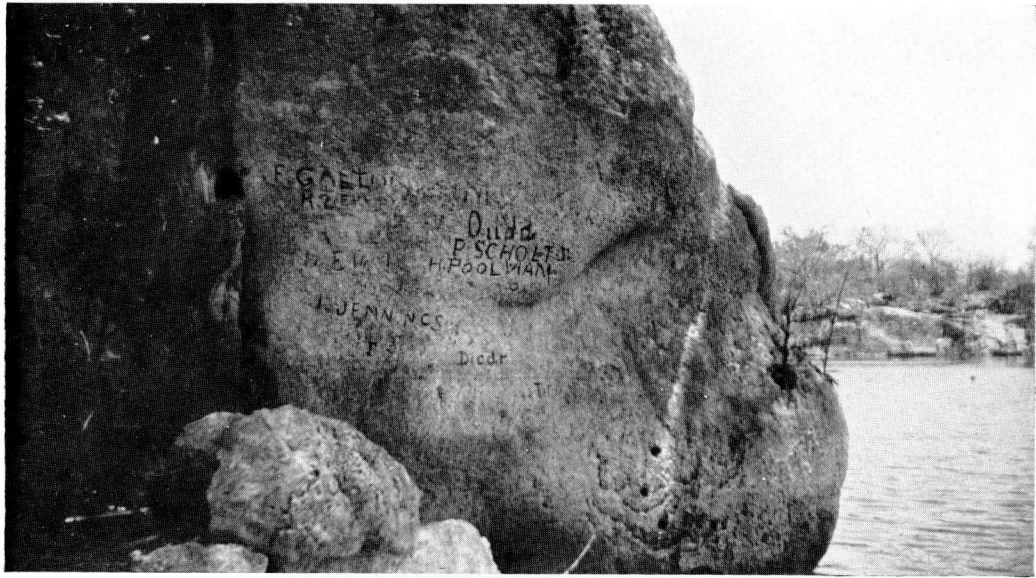
DEAR MISS ELDERTON, First—my best new year wishes to you, to Dr Heron and to Miss Barrington, with many thanks for your joint Christmas Greeting. Enclosed I return both *The Child* and the New Zealand papers. It is gratifying that Eugenics has taken so strong a hold there. Professor Pearson will probably have mentioned that he has been with me. It gave me great pleasure to see him apparently not at all jaded by his hard work. I have read and shall re-read the recent Eugenics publications, full of hard and conscientious work.

Very faithfully yours, FRANCIS GALTON.

GROSS-LICHTERFELDE-WEST (WANNSEEBAHN), DRAKESTR. 37. den 6 *Januar*, 1911.

HOCHVEREHRTER SIR FRANCIS! Nach längeren Bemühungen ist es mir gelungen, eine Photographie des Otjikoto Sees im Damaraland zu erhalten. Ich sende Ihnen anbei zwei Photos der Stelle ein, auf denen Ihr Name eingemeisselt ist. Ich verdanke die Photos der Freundlichkeit des Herrn Tönnesen, des Direktors der South West Africa Co. Auf dem einen Bilde steht Herr Tönnesen und zeigt nach der Stelle hin, auf dem anderen Bilde ist der

PLATE LIX



The Rock on the Lake at Otchikoto, Ovampoland, from photographs of Herr Tönnesen. The upper picture shows the rock where Galton carved his name and below other names added since. The lower picture shows Herr Tönnesen pointing to the rock to which Galton swam out in 1851.

Name links deutlich zu sehen "F. Galton." Auffallend ist, dass der Wasserspiegel um etwa 5 oder 7 Meter gestiegen ist. Vor 10 Jahren war er erheblich niedriger. Ich weiss nicht, wie Sie ihn Ihrer Zeit gefunden haben. Ich hoffe, dass Ihnen diese Erinnerung am Damaraland eine kleine Freude machen wird. Ich erinnere mich mit grosser Freude an den Mittag, den ich im Sommer 1909 in Ihrem Hause verleben durfte. Indem ich bitte mich Ihrem Fräulein Nichte empfehlen zu wollen, bin ich, mit ausgezeichneter Hochachtung, Ihr sehr ergebener, PH. KUHN.

GRAYSHOTT HOUSE, HASLEMERE, SURREY. *January 9, 1911.*

MY DEAR MILLY, I am not sure when I last wrote—possibly quite lately, for I was then writing many letters. If so, excuse repetition of *nothing*. You certainly have the art of attracting and taming birds. I can't induce them to come, when I try. But we have now put up coconuts for the tits, and we drink the fluid in them ourselves. Violet Galton is with us for the week. I hope Guy was none the worse for his long trudge in the flooded way, on returning from Loxton. I wish I had something interesting to tell you, but have nothing to say more, beyond affectionate wishes to you all, individually. FRANCIS GALTON.

[This is the last letter which I know of in Francis Galton's handwriting. Ed.]

GRAYSHOTT, HASLEMERE. *January 16, 1911.*

DEAR MILLY, I am so sorry to hear of your illness now, and do hope you will pick up soon. I am thankful Dim is better.

I am sorry to have no good news. Dr Lyndon considered Uncle Frank worse this afternoon—his breath is so difficult to get, he is in great discomfort and very weak, but so sweet and cheerful, always saying something witty if he can speak a few words. Will write again to-morrow. Edward is such a comfort to me and to him also. Your loving EVA.

THE ATHENAEUM, PALL MALL, S.W. *January 19, 1911.*

DEAR MISS BIGGS, I am grieved to see the announcement in this morning's papers and send you truest sympathy. Sir Francis has been for so many years your charge and filled so large a part in your life that the loss of his presence, always so bright and kindly, will be a sore bereavement. I trust you may be enabled to bear up under so heavy a sorrow. I sincerely regret not to have been able to get to Grayshott for weeks past and have missed seeing your Uncle. But my own tragic bereavement, the illness of my Wife and the urgent business connected with my Son's death have kept me busy and much in London. I am still tied down here by business which I cannot shirk, otherwise I would come up to Grayshott to see if I could be of any service to you. With my sincere sympathy.

Yours very truly, ARCH. GEIKIE.

THE ATHENAEUM, PALL MALL, S.W. *January 19, 1911.*

DEAR MISS BIGGS, The telegram which you so kindly sent me yesterday reached me after I had written to you this morning. At the meeting of the Royal Society to-day the news of the death of Sir Francis Galton was received with the deepest regret. He was I think our oldest and certainly one of our most distinguished fellows, and the feeling was expressed on all sides that it was well that the Society even at the last had recognised his genius by awarding to him its highest honour, the Copley Medal. I shall never cease to regret that I was unable to pay him a visit during these last few weeks. But from the kindly note I had from him I knew that he understood how I stood. The Royal Society desires to pay the last tribute of respect to its venerated colleague by being represented at his funeral, and I made the arrangements this afternoon. I sincerely regret that I shall be prevented from attending myself. With renewed sympathy. Yours very truly, ARCH. GEIKIE.

ST RADEGUND'S, CAMBRIDGE. *January 21, 1911.*

DEAR DARWIN, I feel I must write to some one to express my sincere regret at the loss of our dear and venerated old friend Francis Galton. I don't know his own people. Ripe as his years were—and I am sure he would have hated to live in any crippled state—yet so sturdy and keen was he that his death seems a surprise and a shock. I had not seen him for some

months and he may have been failing. What a splendid life it has been; personal courage and adventure, admirable mental and bodily endowments, and a powerful intellectual grip upon the problems and work of his time. And with all this *no freaks*—sane, humane and sociable.

Ever yours, CLIFFORD ALLBUTT.

TO SIR GEORGE DARWIN, K.C.B., F.R.S.

42, RUTLAND GATE, S.W. *January 25, 1911.*

DEAR PROFESSOR PEARSON, If you were thinking of giving little amusing incidents in Uncle Frank's life, I wonder if you would like to mention a neat dodge he had for seeing comfortably in a London crowd. He got a wooden brick with a hole in it through which he passed thick string, with a big knot at the bottom. This he carried under his arm*, and if a tiresome tall person stood before him, he would gently and slowly drop his brick and stand on it with one foot, and when it was time to go, draw it up again by its string, and no one noticed anything. Also you know the "Hyperscope," I suppose, which he used for the same purpose. You put your eyes to the two holes and the matinée hat drops a few inches, and you see the lecturer quite clearly; the opposite side being arranged with a sloping looking-glass let in. He used this last, I think, when Queen Victoria came to open the Albert and Victoria Museum close by, and the whole of Brompton Road was crowded to see her pass by.

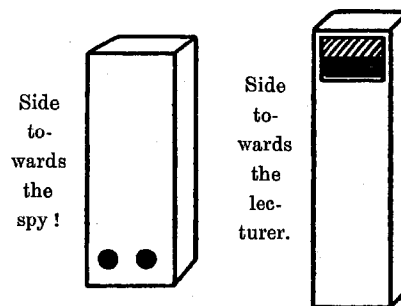
I wonder if you would mention his extraordinary good temper—it was quite a joke when he was a child, the boys at the school he went to used to stand round him in a ring trying to irritate him, but always failed. This was such an advantage in a household, as it made the servants love him; the Scotts at Bibury used to say they would like to work for him for love, because he was so delighted with every single thing they did for him, and yet they all had a reverence for him and no servant was ever impertinent. He was just like a child in his jokes and always said he was a tiny bit jealous of Wee Ling in the house! Another thing you might like to say is how extraordinarily keen he was about things, everything was so intensely interesting to him, any workman in a foreign country he would have a long talk with and ask how he did this, that and the other, and then tell the man how clever he was; he would then take a lesson himself from the man, or *child* as the case might be. Just before he died, when almost too feeble to speak, he was given a prick of strychnine in the wrist; this interested him intensely and though we didn't want him to exhaust himself talking, he wouldn't let the doctor alone without having it clearly explained what the strychnine would do for him. He was most excited about the oxygen they gave him and wanted Edward Wheler to tell Dr Lyndon all about *his* experiments with it—this an hour or so before death.

By the bye, it is a mistake to think, as some of the papers reported, that my uncle died in his sleep; he became unconscious about $\frac{3}{4}$ of an hour before death; Gifi looked in and Uncle Frank opened his eyes and smiled at him, and then never opened them again; he seemed in a sort of torpor. He looked so sweet and of such a good healthy colour after death, that I could not believe the doctor when he said the heart was not beating. I kept candles burning by him till the coffin was taken from the house and visited him continually in the nights to pray for his soul, and he was buried with my crucifix on his breast; he looked so sweet in his coffin with his own dear smile on his face, it was sad to leave him in that box, but he looked just like himself to the last.....E. B.

42, RUTLAND GATE, S.W. *February 26, 1911.*

DEAR MR PERRY COSTE, Your kind letter has lain unanswered all this time simply because I have been so occupied, not because it was unappreciated. The sympathy of my Uncle's friends and admirers has been my great comfort.

How very curious that you should have been writing to him—you are indeed quite correct about his intellect, it was keen up to the day of his death, and when the doctor pricked



[* Done up as a brown paper parcel. ED.]

strychnine into his wrist, hoping to strengthen his heart which was rapidly failing, he would know all about it and exactly how it would act—this an hour before death. He died very peacefully and looked so natural and sweet after death, I could not believe he had gone. It is a terrible blow to Professor Pearson, who was his greatest friend. Thanking you for so kindly writing to me, and hoping all of you are well. Yours sincerely, L. E. BRIGGS.

Extract from the Claverdon Parish Magazine.

The following has been written specially for this Magazine by the Rev. Dr H. M. Butler, Master of Trinity College, Cambridge:

Sir Francis Galton is best known to the public as an African traveller and a very eminent man of science. With certain branches of science his name is likely to be linked for all time to come as that of a leader and discoverer. In this short paper he will be sketched from another point of view by one who has known and loved him since the close of 1852. He was a man of singular sweetness of temper, courteous, considerate, prompt to sympathise in little things as well as great. He was a charming companion in any travelling excursion, at home or abroad, skilful in planning the various localities to be visited and the various stages, bright and resourceful in dealing with any incidents, imperturbable and amusing if any of these were of a troublesome or perplexing kind. In conversation he was keen, vigilant, always on the look out for something new or beautiful or wonderful. His interests were by no means only scientific. He had an intimate knowledge and an ever-fresh enjoyment of not a few of our greatest authors, among whom Shakespeare, Keats, Tennyson might be specially singled out, poets who had been among the favourites of the exceptionally able young men with whom he had lived during his happy days at Cambridge. He enjoyed greatly any novels that naturally stirred and encouraged thought, especially if these were read out of doors by two or three friends during a walking tour in beautiful countries. Among such novels may be named Kingsley's *Alton Locke*, *Yeast*, *Westward Ho!* He was a very faithful friend, and drew his many friends from many various quarters and very different lines of thought and creed. He was very happy in his long married life with the daughter of Dr George Butler, formerly Head Master of Harrow School and Dean of Peterborough. After her death abroad, as old age came gradually on, he retained all the freshness of his intellect and the warmth of his heart, but his bodily activities became less and less. As far back as July, 1908, he wrote to a near kinsman, "The sunset of life is accompanied with pains and penalties, and is a cause of occasional inconvenience to friends. But for myself I find it to be on the whole a happy and peaceful time, on the condition of a frank submission to its many restrictions." Two years and a half of life were still to be granted to him, but the words just quoted might have been written even to the close. He died in his 89th year, leaving behind him not only an abiding fame, but a beautiful memory, for he was in truth "a man greatly beloved." H. M. B.

CLAVERDON LEYS, WARWICK. *July 11, 1911.*

DEAR PEARSON, Sir George and Lady Darwin have been here, and he has taken much trouble re-drafting the proposed epitaph to my Uncle. I must say I like it much better than —'s, but do not tell the latter! Sir George specially asked me to consult you about it, and if possible to suggest any amendment. I like it as being short and simple. What do you think?

I have to go to the Meeting to-morrow, but do not expect to see you as I hope you are still in the North and taking a rest, so I will write no more. There is no immediate hurry for an answer. Yours very sincerely, E. G. WHEELER.

[The epitaph just as it now reads in Claverdon Church was enclosed: see Vol. III^A, p. 434.]

Extracts from Francis Galton's Rough Note-books.

It seems to me worth while illustrating in a single instance Francis Galton's method of work. He would take a note-book and write suggestions in pencil in it. In these his handwriting is very minute, very indistinct, and the text

full of gaps to be filled in later when the required data might be accessible. He always carried such a note-book about with him, when on his travels or visits, and made rapid jottings in it. Often he would start the whole suggestion or idea afresh, sometimes it led up to the subject of a lecture or a paper; occasionally the matter is merely referred to in a paragraph of one of his publications, although it is far more developed, if disconnectedly, in the note-book.

To illustrate the whole process I publish here a few extracts from note-books on Eugenics from 1900 onward. Galton is concerning himself with the topic he often talked about—the average value to the State of the child of picked parents. The factors he has in view are: (i) The degree of superiority of the child of superior parents. (ii) The higher wage or income of such child over the average of its class. (iii) These differences which form the additional profit to the State of the child of superior parents. (iv) This additional profit capitalised is what the State ought to be willing to pay in order to obtain such children.

I have made no attempt to fill in Francis Galton's gaps, although it would in several instances be feasible. I have given these extracts from the note-books simply to illustrate Galton's method of research, but at the same time I have chosen a suggestive topic, of which the general purport is obvious notwithstanding the fragmentary state of the notes.

The Money Worth to the State of an Infant Male Child of Selected Parents. From the Papers of Sir Francis Galton, F.R.S.

Dr Farr has discussed this question with high actuarial skill in respect to the child of an ordinary Essex labourer, supposed to work and get on like the average of his class. He compares the present value of the expenditure incurred in his maintenance and that of the wages he will gain wherewith to maintain his own children, and striking a balance finds it £ to the good. This was in 18 . The figures would now require revision.

My problem is of the same kind but depends on different data; it deals with the offspring of parents who have been selected for their civic worth at the rate of 1 in 50 or 1 in 20 of their class. In other words 2 per cent. or 5 per cent., as the case may be, have been picked out as the best by the judgment of the selectors, much as the 2 per cent. best pears might be picked out of a basket and charged for as being of a higher grade. It will be convenient to use the term "per cent. selects" with an appropriate figure prefixed, as 2 per cent. selects or 5 per cent. selects, to express both the fact and the rigour of selection.

In considering the money value of a select we may be guided by the wages he is likely to earn. If say 2 per cent. of the men of his class earn shillings a week, but that the remaining 98 per cent. of them earn shillings, then the excess of the former sum, duly capitalised to its value at the time when the calculation is made, represents fairly enough the superior worth of the children of the selects to the average worth of the children of the class*. The actuarial calculation must be difficult and take many things into account on which we need not now dwell, but the general principle will be intelligible from this outline sketch of it. The point immediately in view is that if A be the money worth of a child to the State, it would be good economy to spend any sum less than A in procuring and maintaining such a child, and bad economy to spend more than A . It is clearly important to ascertain the value of A in each particular case.

* The regression of the children of the selected parents referred to below has here been overlooked.

- (a) How does a better workman obtain better wages and to what extent?
 - (1) By becoming a foreman or a higher grade workman ;
 - (2) By change of occupation ;
 - (3) By off-work ;

(b) Distribution of wages among the most successful 5 per cent.

On the reasonable supposition that the distribution of civic worth follows the Gaussian law, the value of the deviate corresponding to an *L*-select can be found from my small table on p. * or the larger one by Sheppard in *Biometrika*, IV. Then by the formula of Heredity as thus far determined, the mean deviates of the offspring of deviates, which we will call \bar{L} , can be found and its class place n from the above tables. This does not give the mean value of the offspring of *L* and all above *L* parents, but considering that fertility decreases as the severity of selection increases, and that we are as yet ignorant of the rate of decrease; also bearing in mind that an inferior limit of possible values of *L* is almost as serviceable in the argument as its exact value, it will suffice to say that the mean deviate of the offspring of *L*-selects and of all higher than *L*-selects exceeds n , and that their average value v is determinable. In short, it would be good economy to purchase infants whose cost of maintenance etc. capitalised to present value did not exceed v . Some purchases would turn out ill, others good, but taking them all round as in any large business, the rule would be founded on a statistical certainty. This general idea requires elaboration and a criticism by experts of the results reached.

Worth estimated either by Class Place or by Scale Value and their mutual Convertibility.

Ministers of State, Heads of Departments, Bishops, Judges, Commanders and Admirals in Chief, Governors of Colonies and other appointments. Foreign Ambassadors, Ministers and other diplomats.

Choice out of many applicants as Secretary, Clerk, superior servant.

Choice of candidates for M.P., Guardians and other municipal officers.

Choice of a Doctor, a Lawyer, an Agent, a School, a Governess, a Shop, a tour, a means of conveyance.

Selection of a Profession, a House, Investments, a Dress shape or colour, a book or any other purchase, an Hotel, food, wine, a dog, a pianoforte, a cigar, a horse.

Classification by marks at school or college examinations, and competitions for Government services.

Sorting fruit into classes differently priced.

Appraisement in money value of pictures, curios, horses, actors and actresses.

Pondering before choosing (Scotchmen).

Arrays—Class place and scale $\left\{ \begin{matrix} \text{value} \\ \text{degree} \end{matrix} \right\}$, their convertibility into centile values, always feasible—Judgment by intercomparison.

*Place in Scale of Distribution.
Position in scale 0° to 100° up to array.*

Mid-Parental Deviations in units of q	Places of <i>A</i> in Class Scale 0°—100°	Mean Filial Deviations = $\frac{2}{3}A$ in units of q	Places of <i>B</i> in Class Scale 0°—100°
<i>A</i>	Separates from lower part of class the upper	<i>B</i>	Separates from lower part of class the upper
3°·0	2 = the upper 50th part	2°·0	9 = the upper 11th part
2°·5	5 = " 20 "	1°·7	13 = " 7 "
2°·0	9 = " 11 "	1°·3	18 = " 5½ "
1°·5	16 = " 6 "	1°·0	25 = " 4 "
1°·0	25 = " 4 "	0°·3	33 = " 3 "

* Galton is, I think, referring to Table 6 on p. 203 of his *Natural Inheritance*.

Worth defined by Class Place.

The phrase that so and so ranks among the upper half, quarter, tenth or other division of a class consisting of a hundred persons is a definite fact and of substantial importance.

I have often had occasion to comment on this, but propose now to elaborate the idea somewhat more fully.

The comparison of the merits of alternative objects is a familiar act and the classification of a large number of objects of like kind in order of merit, however defined, is merely a prolonged application of this power. Class lists are familiar in competitive examinations, when candidates are given marks, by which their order of merit is expressed according to the judgment of the examiner, but the faculty of accurate classifying is far more widely exercised when there are many competitors for a coveted place and only one or a few vacancies. No electorate doubts its capacity of so placing the men that the right ones shall be on the whole generally approved of.

The selective process is gone through in renting a house, or buying an article, a dress, wine, a horse, a pianoforte and, as a rule, whenever a purchase has to be made. It is gone through with care in selecting an agent, a governess, or other employees; Ministers of State, Heads of Departments, Bishops, Judges, Ambassadors and other diplomatic agents, recipients of honours, are all selected always with careful consideration, not seldom with anxious care. Appraisalment in money value of curios and objects of art falls under the same head. If we please to take the trouble we may arrange a class in order of any specified description of merit.

I will now suppose this to be done for Civic Worth (a term that I need not now stop to define) and that examples have been recorded of the qualifications of those who stand at any two specified practical lengths of the array. It is convenient to take those at or about its middle and at or about its upper fourth division. Let us call them M and Q . The difference between M and Q we take as the unit of Civic Worth. This difference will be called q (describing briefly the Quartile difference).

All children of $\frac{1}{n}$ of all parental couples to be Wards of Government; $n =$ say, 10. No. of children to be provided for 4 per family (Average 4 children to parent, total children 40) $\frac{4}{10}$ \times population.

Expenditure on scale of upper artisan families say 5s. a week.

(p) at 5s. per week £13 a year.

Free from other expense ,, 2s. 6d. ,, £6. 10s. ,, up to ... years.

Looked after without interfering with parental responsibility, unless grave faults of management. $\frac{200}{52} = 2$ £10 a year.

Competitive insurance of male children when adults to partly repay at age.....or death $\frac{1}{r}$ th of expenditure.

Marriages per thousand of population.

4 times as many children, $\frac{1}{10}$ take or multiply marriages by 0.4.

5s. a week = $5 \times 52 = 260$ shillings = £13 a year,

to be continued for 15 years, $13 \times 15 = £195$ say £200 total for each child,

in a population of 1000, 20 (say) marriages a year or a yearly capital to be put by of £4000, i.e. £4 per head. Army cost?

This is 4 times too much to be reasonable; make $n = 20$ to halve it,

$p =$

If 20 more per thousand and 1 in 20 taken, that is (4 children to 1 marriage) 4 per thousand of population to receive this at 4s. a head = £40 ann. = $40 \times 15 = 600$ total per 1000.

Ignore compound interest, the are far greater than the allowance for it.

£10 annually = $\frac{200}{52}$ shillings = 4s. about weekly.

It is deviation from M measured to units of q that we shall be solely concerned with here.

It has now become widely known, and is very familiar to modern statisticians, that the distribution of nearly all faculties among the members of an array, when referred to units of q , follows approximately, often very closely, the important theoretical law with which the name of the mathematician Gauss is associated. It is based upon the supposition that all variability is due to variety in the combination of a large number of small and independent elements. Be the cogency of the logic what it may, the Gaussian law is found to be an excellent approximation to observed fact in a multitude of cases, many of them analogous to the Civic Worth of which we are speaking. Assuming its application here and having determined q as above we can proceed with numerical precision.

I give a brief table by which the worth for any specified class place (or rather for the upper half of any specified class place) can be determined by adding to M (reduced to units of q) the value of the deviation stated, read in terms of q .

The partition values refer to a centennial scale (0° to 100°) placed alongside the array of class places which are described by the "ordinal" numbers of 1st, 2nd, 3rd, ... 100th and correspond to the partitions that separate the class places of the same name.

They are both reckoned from the lowest upwards.

Then the scale value divides the upper 25 per cent. or one quarter of the class places. That of 50 per cent. cuts off the upper half from the lower half.

Scale 0° to 1000° .

Evaluation which separates those beneath from the upper		Corresponding deviation in units of q
	very roughly	
21	1/47.6 or say 1/50th	3.0
46	1/21.7 " 1/20th	2.5
89	1/11.2 " 1/11th	2.0
156	1/ 6.4 " 1/ 6th	1.5
250	1/ 4.0 " 1/ 4th	1.0

Evaluation which separates the upper from those below it			
q	$\times .674$	points per mille $0^\circ-1000^\circ$	say
3.0	2.02	22	2
2.5	1.68	46	5
2.0	1.35	88	9
1.5	1.01	155	16
1.0	0.67(45)	249	25
in σ	$\times .666$	rank per mille	
2.02	1345	88	9
1.68	1118	132	13
1.35	899	184	18
1.01	679	248	25
0.67	449	327	33

1 in 20 families of 4 each, or 1 in 5 [? 20] children
 in population of 1000, 20 marriages per annum, children of one selected is 4 children
 at 4s. a week = 208s. a year = £10. 8s. say roughly £10 for 5 per cent. of child population
 for 10 years.

Total of £10 per child for 15 years = £150; per 4 children £600 max.,
 3 £450 max.,

insurance might repay (in what part leaves max. £300)
 or £300 annually to be extracted for each 1000 of population,
 = £3 out of 10 = 66s. = £3. 3s. per head.

14 million for 45 say £1 to every 3 persons = about £3 per head.

15

Selection.

1 in 20 families parent engineer family large,
 total 6 in each family of whom 1 dies not counted owing to early death.
 5 to be allowed for.

4s. a week for 52 weeks = £10. 8s. a year say £10
 to be continued for 15 years = £150 each child

= £750 for each family of 5 children.

Marriages in a population of 1000 = say 20 or 1 in 50 of which one produces the 5 children.

Therefore the annual cost per head per thousand of population of 1000 would be £0.75 or
 15s. per head of total population.

14 millions (and more could be had) so say 15 millions are expended annually in voluntary
 charities = £1 to each 3 persons = 7s. a head about or half the above.

What would be the money worth to the nation of each person selected at rate of 1 in 7?

Eugenic Administration. A Forecast.

It seems timely to put forward in no dogmatic way my own views on the possible future
 of Eugenics. They are submitted for extracting helpful criticisms and suggestions and for
 leisurely discussion, so that clearer ideas may be gained of the road in front before the time
 for marching arrives.

I will suppose (1) that Eugenics has taken firm hold upon the national conscience, (2) that
 large sums are in prospect for its support, of the same order of magnitude as those now devoted
 to charitable purposes or to old age pensions and to education, and that the point to be
 considered is how to administer these funds most wisely. The inquiry frequently bifurcates as
 it proceeds. I cannot follow all the roads but must pursue that which seems to be the main
 one.

The object briefly is to call into existence a large contingent of citizens, who are naturally
 endowed above the average of their contemporaries with health and vigour of mind and body
 (and of naturally good characters), and the question is how to spend money in the most
 economical way, in accordance with public sentiment, for doing this.

It seems to me that whatever is done should be tentative for some time, and yet be on
 a sufficiently large scale to give trustworthy results. How are we to begin?

I have already written somewhat to this effect in a paper read here on (..... Local Associa-
 tions) which I need not recapitulate, but should be glad if it were referred to and taken into
 account together with what will now be said. There are two aims: (1) the most feasible plan
 seems to be in helping eugenic families to procure better house accommodation, food, general
 nurture, than they would otherwise be able to procure, and to make them feel that each
 additional child is a gain to them, (2) (which will here be treated briefly and incidentally) to
 promote early eugenic marriages. The best field of operation at first seems to lie in rural
 districts where the existing human stock is relatively good and to whom an extra few shillings
 a week is a potent motive. That points to the northern rather than to the southern
 counties.

Let us then confine our ideas for the present to those districts in which other conditions are also favourable, such as zealous residents of good social position, active and efficient professional and administrative workers, and so forth.

Money grants might I conceive be made, in a fair and judicious way, to eugenic families, as for example one shilling weekly for each child under 15 years of age. That would amount to £2. 12s. for each child annually, equal to a total sum of £39 for each child. This is a large sum, but not so very large considering that the value at birth of each male child of an Essex labourer was calculated by Dr Farr to be £20, and that the Old Age Pensions cost six shillings weekly. Looking at it from a national point of view the money would be well spent on the whole. There would of course be individual shortcomings, but an excess of individual merits above the present average.

The obvious remark is that if the money so spent be ultimately remunerative, the scheme could be made self-supporting. But the difficulties of doing this seem insuperable, to say nothing of the hardships of handicapping a youth who has his living to make with a serious debt. The difficulties of debiting [?] arise partly from the variability of the offspring, whom it would be not just to tax alike, and partly to the mobility of the population so that the whereabouts of men could not be followed without a large, costly and inquisitorial bureaucracy. So far as I can foresee, all attempts to recover the money spent for rearing must be abandoned and the charge be borne by the State, that is by the population at large.

A problem very desirable to solve is the average value to the State of each child, in any large group of them, who are born of parents exceptionally gifted in a specified degree with the qualities that make for civic worth. The hereditary element in the problem is already ascertained with adequate precision, the difficulty mainly lies in appraising the financial value of civic worth.

No one who is conversant with English history, can doubt that the immigration of the Huguenots—we need not stop to define the word—was of immense value to our country. If we were agreed as to the number of pounds it was worth on the whole and knew the numbers of immigrants, the average worth of each could be calculated. Thus it would be possible, though not easy, to divide that worth into its components of natural gifts and nurture with fairness. Dealing alone with the former and with its known intensity of hereditary transmission we could arrive at the *prairie value* of a Huguenot child. Call it x . Then it would be a fair financial transaction for the State to buy such children and to rear and educate them at a total cost of Lx each. In default of other data we must try to get some idea of an x value in indirect ways, as by comparing the wages of picked men with those of the average. The crews of Arctic exploring ships are all picked men who are attracted to this work largely no doubt by a spirit of adventure, but to a considerable degree by increased pay. Whenever the attraction is greater, whether in pay or otherwise, there will be more applicants than places for them. So selection comes into play of corresponding degrees of rigour.

Picked Couples.

The offspring will be less exceptional on the average than the parents in a definite degree, and we can foretell the distribution of capacity in the children of any large number of parental couples who are all exceptionally gifted in any definite degree. Conversely we can tell what conditions must be fulfilled in order that an influx of persons may be called into existence whose average value is specified, while the distribution of capacity among them will be known.

It may be possible roughly to estimate the value to the State of such a group of persons proceeding on similar lines to those followed by the late Dr Farr in calculating the value at birth of a male child, son to an Essex labourer, but it is difficult. The problem which it is desirable to solve is: What would be the average money value to the State of each child of a large group of children, the average natural capacity of whose parents was superior to that of their contemporaries, and equal to that of a group picked out of them with a specified rigour of selection? Let x be the average value of each of these children, then it would be an advantage for the State to spend any sum not exceeding x in procuring and nurturing it. If x were known, it would be easy to consider how much the State might reasonably do.

Some clue towards the value of x is to be had by comparing the wages of picked workmen with those of workmen generally. In mental work of all kinds the difference is very great, whether we consider possible clerkships or the higher appointments.

Occupation picked	Sailor Arctic	Soldier Corp. Sergeant	Artisan Foreman	Policeman Sergeants, etc.
Occupation picked	Domestics [Housekeeper]	Railway [Guard]	Gardener [Head Gardener]	

Huguenot deviation	Centennial graduations		Roughly approx. severity of selection	
0.5	63	37	1/3	
1.0	75	25	1/4	
1.5	85	15	1/7	$1.5 \times 2/3 = 1.0$
2.0	91	9	1/10	
2.5	95	5	1/20	$2.5 \times 2/3 = 1.7$
3.0	98	2	1/50	$3.0 \times 2/3 = 2.0$

Galton's Characterisation of Herbert Spencer.

Among Galton's papers I find the following :

"Reminiscences of Herbert Spencer. Rough first draft of what I afterwards sent to Mr Duncan*."

Mr H. Spencer's magnificent intellect was associated with no small degree of oddity, obstinacy and even perversity, difficult to rate in their due proportions. My knowledge of him was chiefly due to a habit of spending an hour or two of the afternoon, during many years, in the then smoking room of the Athenaeum Club, when quiet conversation was easy. He was always interested in my various hobbies and though I did not always accept his criticisms, I received great benefit from them. Let me say parenthetically that to me one of the chief disadvantages of age lies in the diminishing number of friends who care for one's work and fearlessly speak their views. In those long bygone times I could go into the Club and talk with one man on this subject in which he was expert, and with another man on that; now it is all changed. Moreover, the relatively young are too diffident in freely pulling to pieces the arguments of a much more elderly friend, so that much wholesome correction is lost to him. Herbert Spencer had assuredly no diffidence in criticising others, though he was very thin-skinned under the converse process. He hated fair argument, and wicked friends asserted, not without grounds, that whenever he felt worsted he fingered his pulse and said abruptly, "I must talk no more." The fact was that excitement really harmed him. He was far too opinionated for candid argument. The following story is characteristic. Some years ago, when I was actively engaged in meteorology, he said to me that we were all wrong in forecasting weather through not taking preceding temperatures into sufficient account; that the earth became chilled by a long frost and its store of cold ought to be recognised, and conversely after a spell of hot weather. He said he would write me a letter on the subject, which he did and at length. My reply was to the effect that the influence in question was not wholly neglected, that it was a *vera causa*, but far less important than that of change of wind, as shown by the suddenness with which frosts and thaws often set in, and especially by the well-known effects of the south or "föhn" wind on melting Alpine snows. He was clearly imperfectly acquainted

* Mr David Duncan has published extracts from these Reminiscences in his *Life and Letters of Herbert Spencer*, 1908. Whether Galton or he modified the extracts used I do not know. As the Reminiscences stand they accord closely with Galton's opinions of Spencer, as expressed to me in conversation. He certainly would not have agreed with Dr Duncan's view that Spencer was "one of the greatest thinkers of this or any age" (*Life and Letters*, p. 477).

with the subject, but for all that he stuck obstinately to his conclusions and afterwards published the contents of his letter (at this moment I forget where) without any recognition of the facts that told against him. Another meteorological view to which he clung with some persistency, which in a narrow sense is right but in a broader sense is wrong, was that the fact of the weather having been, say, dry beyond the average for some months in some particular place, was no justification for the popular belief that the deficiency in rain would be made up later. He insisted on treating the past and future weather as independent variables, which they are not. Local deficiencies in one place testify to local excesses in others, and as the whole atmosphere travels on there is a tendency for the one to replace the other and for averages to be maintained.

He was a most impracticable administrator when put to the test. Thus, there were great complaints at the Athenaeum Club of the way in which the dining-room was managed. He, I and one of the chief of the malcontents happened to be members of its Committee at the time. Spencer argued that experience in dealing with such matters was of comparatively little importance, adducing examples in confirmation, and he finally carried his proposition that a sub-Committee of three should be appointed with large powers, and that it should consist of himself and the malcontent and myself as the third, being professionally unfettered and presumably having leisure. I did not much like the task, but accepted. We met, and a most comically inefficient group we proved to be. There was a continual perversity in Spencer's views, and yet it was always a defensible perversity. He gave what seemed to me a disproportionate weight to small questions, treating them as matters of deep principle to be set forth in ponderous words, with the result that we hardly got on at all. I recollect one amusing scene; our butcher was summoned to be admonished as to the quality of his beef. I forget the precise words used by Spencer, which the butcher rebutted in terms satisfactory to himself, to which Spencer replied with severity: "You seem not to appreciate the nature of our complaint; your beef has too large a proportion of cellular tissue." The butcher fairly collapsed under the weight of this accusation. He could not comprehend it but evidently believed that it might in some obscure way be justified.

As regards heredity—one day he spoke with surprised concern to me upon his learning that the weight of scientific belief was opposed to the inheritance of acquired faculties; for, if they were not inherited, much of his scheme of evolution would be invalidated. I spoke of many observations and arguments by which it seemed to be disproved, but he never I believe consented to go thoroughly and with open mind into this question. I am inclined to think that he unconsciously gave almost as much logical weight to one of his own deductions as he would to a well-observed fact. His over-tendency to *à priori* reasoning has been fully recognised. He came to me one day to have impressions taken of his fingers, I being at that time much occupied with finger-prints. I spoke of our ignorance of the object of the papillary ridges which form the peculiar patterns on the bulbs of the fingers and which are closely connected with the ducts of the sudorific glands, and said that more careful dissection was still wanted of the human embryo. He said: "You are studying the question in the wrong way, you ought to begin by considering the conditions that have to be fulfilled; the mouths of the ducts being delicate require the protection of the ridges"; and he then enlarged with ingenuity and elaboration on the consequences of this necessity. I wickedly allowed him to finish and then replied: "Your argument ought to be most convincing, but it unfortunately happens that the mouths do not open out in the valleys where they might be protected, but along the crests of the ridges in the most exposed position possible." He burst into a good-humoured fit of laughter and then repeated to me the now well-known story about himself, which curiously enough I have also heard from the other two persons present at the time. My version of it is more dramatic than that in the *Autobiography*. They formed a party of three, Huxley, Spencer and another, dining together at the Club. In course of conversational banter Spencer said: "You would little think when I was young I wrote a tragedy." Huxley instantly flashed out with "I know its plot." Spencer indignantly denied the possibility of his knowing it, he having never shown the tragedy nor even spoken of its existence to any one, before then. Huxley persisted, and being challenged to tell, said that the plot lay in a beautiful deduction being killed by an ugly little fact.

Spencer had never seen a race, so I succeeded in persuading him to go with me to see the Derby, and I got a clerical but large-hearted Don of a College to join us. Spencer proved rather a kill-joy. He summed up his impressions at the end, after careful thought, under three

heads. First, that the general show was just what he had expected; secondly, that a crowd of men was a nasty object, like flies on a plate; thirdly, that he would never go again. However I was assured that he did, and that in the very next year.

I thought him a man of naturally a very strong constitution, ruined by over-work. When about to utter remarks he was apt to clear his throat by a deep "hem," that testified to a powerful chest. His natural strength is shown by the account in his autobiography of his extraordinary walk, when a boy of 13, while he was half-starved, of more than 40 miles the first day, 40 the second and 20 the third, to his destination.

The mental process I most admired in him was that by which he generalised. It is too common for persons to arrive at general conclusions through unconscious and unchecked steps, so that when asked for evidence they cannot give it. Spencer had always a store of facts at hand whenever he wished to justify himself. His wealth of ready illustration was marvellous. Notwithstanding my admiration of his intellect and my sense of incompetence to treat subjects in the wide manner that he did so easily, I cannot say that I have profited much by his writings or taken pleasure in them. I rarely felt "forwarder" for reading them, least so in subjects with which I was familiar and where I felt somewhat entitled to criticise his results. I am far from being singular in saying this, as few of those with whom I have talked seem to admire his work whole-heartedly, and I have often expressed a wonder how far their non-appreciation would be justified by the judgment of posterity.

Note to p. 585, Chapter XVII.

Galton had sent Miss Elderton a ticket for a meeting at which sex-problems were discussed under the presidency of Dr Slaughter. The meeting was *not*, as Galton supposed, held under the auspices of the Eugenics Education Society. The exact origin of the latter Society is somewhat obscure. We have Galton's letter to Montague Crackanthorpe of December 16, 1906 (see Vol. III^A, p. 339), but we do not know what part the latter took in the matter until the spring of 1908. Meanwhile there existed in or before 1907 a body termed the "Moral Education League." At a meeting held on November 15, 1907, a section of this League reconstituted itself as a new Society—the "Eugenics Education Society." Members of the Committee of the League resigned their posts to become members of the Council of the new Society. Dr Slaughter was the first Chairman of this Council, and the guiding spirit of the infant Society during the early days of its existence. Galton did not join the Society until its practical control had passed into the hands of Montague Crackanthorpe, which was the state of affairs by June, 1908 (see Vol. III^A, p. 346).

Note to p. 618, Chapter XVII.

Plenty of illustrations can be given of Galton's good temper and sense of humour. He used to write in a minute diary $1''\cdot5 \times 1''\cdot7$ a brief record of events in the smallest of handwritings; some of these diaries have survived. Thus the entry for Easter Sunday in Seville, 1899, runs: "Cocks, Bulls, and Fire," which signifies a cockfight before breakfast, a bullfight in the afternoon and his niece Eva setting her room on fire while dressing for dinner in the evening. For the latter occurrence he had to pay eight guineas, and yet, Mrs Ellis tells me, he never said a word in reproof: see p. 508.

ADDENDA

Galton in the Appendix to his *Memories of my Life* gives a bibliography of 179 memoirs, books, articles and papers written by himself. I have been able to increase this by 59 titles, and am only too conscious that others may still have escaped me. It is indeed difficult in the case of a life as long as Galton's to discover all the side channels into which he poured the ideas of a fertile mind in the hope of reaching one or another section of the community, and so irrigating the arid wastes of prejudice. I can only trust that nothing of first-class importance may have escaped my notice. But neither Galton's own collections of memoirs and letters nor those preserved by his relatives cover by any means all that he wrote even in the years with which they deal. Just as I have closed my volumes with nothing I thought remaining but the indexing, I have come across two omitted papers of considerable interest.

In the case of the first paper—an important one—my excuse must be that while there are *two* papers by Galton in the xxvith volume of *Nature* there is only *one* entry under his name in the Index, and having come across in opening the text one paper, I did not expect and look for a second. Of the other omitted paper I found the abstract given below among my notes, when checking certain entries in the index; it was marked for incorporation in Chapter XI of Vol. II, but a fitting place not having been found for it there, it had been overlooked and so omitted entirely.

I fear these two papers may not be the only omissions; if so, my sole excuse must be that working independently, I have been more comprehensive than earlier bibliographers, including even Galton himself.

Addendum I.

“A Rapid-View Instrument for Momentary Attitudes.” This paper appeared in *Nature*, July 13, 1882*. In it Galton suggested a very simple mechanism for obtaining with direct vision an almost instantaneous picture of a moving object. His purpose was twofold, (i) to transmit a brief glimpse of a moving body—thus by aid of it he was able to see the wheel of a bicycle at full speed as a well-defined and apparently stationary object—and (ii) to transmit two or more such glimpses separated by short intervals, and to cause the successive images to appear as simultaneous pictures in separate compartments in the same field of view.

The power of the eye to be impressed by a glimpse of very brief duration has not, I think, been duly recognised. Its sensitivity is vastly superior to that of a so-called “instantaneous” photographic plate when exposed in a camera, but it is of a different quality, because the impression induced at each instant of time upon the eye lasts barely for the tenth of a second, whereas that upon a photographic plate is cumulative. There is a continual and rapid

* Vol. xxvi, pp. 249–251.

leakage of the effect of light upon the eye that wastes* the continual supply of stimulus, so that the brightness of the sensorial image at any moment is no more than the sum of a series of infinitesimally short impressions received during the past (say) tenth of a second, of which the most recent is the brightest, the earliest is the faintest, and the intermediate ones have intermediate degrees of strength according to some law, which an apparatus I shall describe gives us the means of investigating. After the lapse of one-tenth of a second the capacity of the eye to receive a stronger impression has become saturated and though the gaze may be indefinitely prolonged the image will become no brighter unless the illumination is increased. (p. 249.)

Galton next compares the sensitivity of the eye with that of an instantaneous plate as sold in the shops (1882). He says that given a dull day and an ordinary sitting-room, the window of which does not occupy more than $\frac{1}{30}$ th of the total area of wall, ceiling, floor, etc., space, which is the light one usually reads or writes under, the eye takes about $\frac{1}{10}$ th of a second to form a clear impression, but the "instantaneous" plate will not give an image under about 30 seconds. Hence Galton concludes that the eye is fully 300 times as sensitive as the usual "instantaneous" plate.

Referring to the effect of illumination our author considers that an object in bright sunlight may require no longer than $\frac{1}{10000}$ th of a tenth of a second to be visible. Thus a cannon-ball of 10-inch diameter moving in mid-course at 1000 feet per second would in $\frac{1}{10000}$ th of a second shift its place through one inch, and would present to the eye if it could be viewed "the appearance of an almost circular disc elongated before and behind by only a slight blur." Galton then proceeds to estimate roughly the speed of a very small stone flipped upwards from his finger, and that of the chiefly effective part of a pigeon's wing; he finds these to be respectively 288 inches per second and 1232 inches per second.

Now the duration of an exposure depends on three data, namely the rapidity with which the screen moves past the eye, the width of the slit through which the momentary glimpse is obtained, and the diameter of the available portion of the pupil of the eye. I prefer not to limit the pupil by using a small eye-hole, which is a source of much trouble in actual work, but to have as large an eye-hole as is in any way desirable. I find the width of the pupil of my eye in an indoor light, as measured by holding a scale beside it and reading off in the looking-glass, to be about 0.1 inch and I use a slit of the same diameter. The exposure begins when the advancing edge of the slit is in front of the near edge of the pupil, and it ceases when these conditions are reversed, in other words it lasts during the time the screen is moving through one-fifth of an inch. In the cases just taken of velocities of 288 and 1232 inches per second the duration of the exposure would be the 1440th and the 6160th part of a second, respectively. There is therefore no difficulty either theoretical or practical about shortness of exposure and sufficiency of illumination. The power exists, and can be utilised, of seeing bodies in motion by a rapid-view instrument, showing them in apparent stillness, and leaving a sharply defined image on the eye, that can be drawn from visual memory, which in some persons is very accurate and tenacious. (p. 250.)

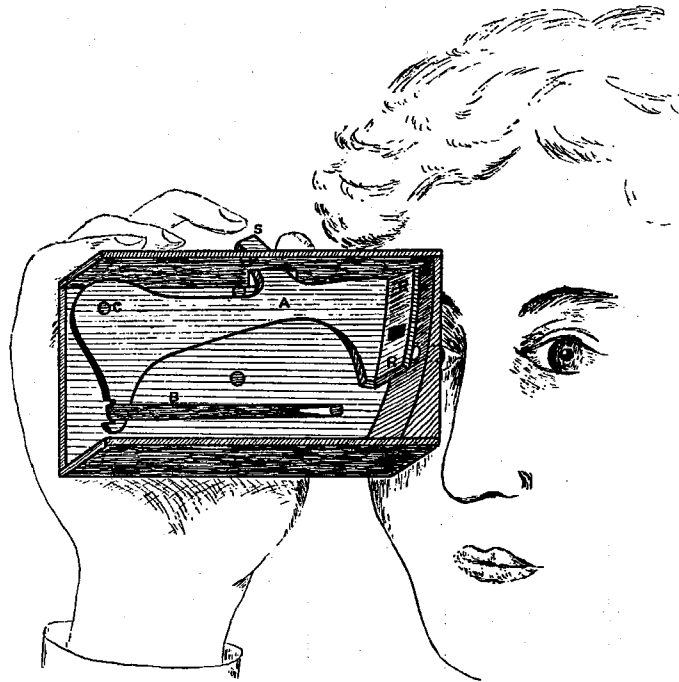
Galton goes on to remark that for a galloping horse or a flying crow a great rapidity of exposure is not essential. He then describes his own

* Is "waste" the right word to use? Is not the "continual supply of stimulus" needful to maintain the sensation of perception of the object in the subject? The ideal photographic plate would be one which did "waste" this continual supply, as the eye does, so that there would be no risk of over-exposure. Who will discover it? ED.

rough pocket instrument, the duration of the exposure being a 360th part of a second under the action of its spring as computed, but its practical duration about one 500th of a second or rather less according to the nature of the tap on the stud; this arises from the fact that very little light passes through the edges of the pupil at the beginning and end of the exposure.

Galton's description of his rough instrument is as follows:

The instrument is shown in the figure below without its sliding lid, which protects it from injury in the pocket. *A* is an arm which turns through a small angle round *C*, its motion being limited by two pins. Its free end carries a vertical screen, *RR*, which is a cylindrical (or better, a conical) sheet described round an axis passing through *C* perpendicular to the arm. As the arm travels to and fro, this screen passes closely in front of the end of the box, which is cut into a hollow cylinder (or cone) to correspond. There is a slit in the middle of the screen and an eye-hole in the centre of the end of the box.



When the slit passes in front of the eye-hole, and the instrument is held as in the figure, a view is obtained. A stud, *S*, projects upwards from the arm, and an india-rubber band, *B*, passing round a fixed pin and a descending spoke of the arm, acts as a spring in causing the stud *S* to rise through a hole in the side of the box, where the finger can press it like the stop of a *cornet à piston*. In using the instrument, it is held in the hand as in the figure, with the eye-hole in front of the eye. Nothing is then visible, but on pressing or tapping the stud the slit passes rapidly in front of the eye-hole, and the view is obtained. After this, the stud is released and the arm springs backwards, when a second view can be obtained, or the eye may be purposely closed for the moment. (p. 250.)

This second view leads Galton to remark that the first view was invariably fainter than the second, showing that its brightness had faded in the brief interval that elapses before comparison can begin. Thus he suggests that the law of the rate of fading might be determined by an

apparatus of this kind, and several arrangements for doing so are described (p. 251).

Galton further gives an account of various modifications of his instrument which he had made with revolving discs and multiple lenses. Also he explains how "to present the images formed by two successive glimpses as simultaneous pictures seen side by side in the field of view."

Finally we may note how Galton measured the velocity of his instrument. He put in temporarily a peg which checked the velocity of the recoil when the slit was opposite the eye-hole. Then the stud being held down, and the box fastened tightly to a support, the recoil was used to project a light weight into the air; this it did when the lever came against the temporary peg, and the weight was projected three inches: The velocity of the stud was therefore $\sqrt{2g}$ $3/12$ ft. per sec. = 4 ft. per sec. = 48 inches per second. From this the velocity of the slit could be easily found by the known distances of stud and slit from the centre of the pin *C* (p. 250). Assuming that measurements can be safely taken on Galton's figure, I make the distances of stud and slot from centre of pin to be in the ratio of about 35 to 56 or 5 to 8 or the velocity would be $384/5$ inches per second, and length of exposure $\frac{1}{384}$ th of a second. Galton gives it in his actual instrument as $\frac{1}{360}$ th of a second.

I know no reference by Galton to this paper in his later publications, nor am I aware of any work on Galton's lines done since its appearance.

Addendum II.

"Note on Australian Marriage Systems." This paper appeared in the *Journal of the Anthropological Institute*, Vol. xviii, pp. 70-72, 1888 (published 1889). Galton gives a simple explanation of the well-known Australian Kamilaroi marriage system, which we can condense as follows:

Phratries	Subphratry	A Male	Marries a Female	Their children are
Dilbi (<i>P</i>)	Muri =	<i>P</i> 1	<i>Q</i> 2	<i>Q</i> 1
	Kubi =	<i>P</i> 2	<i>Q</i> 1	<i>Q</i> 2
Kupatkin (<i>Q</i>)	Ipai =	<i>Q</i> 1	<i>P</i> 2	<i>P</i> 1
	Kumbo =	<i>Q</i> 2	<i>P</i> 1	<i>P</i> 2

Galton illustrates this as follows: Suppose there were only two Universities (Oxford and Cambridge) and two University clubs (the Oxford and Cambridge and the Universities clubs), and assume them all open to men and women alike. Then a man (or woman) may not marry a woman (or a man) of the same university and the same club as himself (or herself). The children of Kamilaroi will be entered at the Mother's university (*P* or *Q*) and the Father's club (1 or 2). In the case of the Kiabara the children on the other hand would be entered at the Father's university and the Mother's club. If this be not the theory of the arrangement, it is, as Galton remarks, an easy way of remembering the complexities of the Australian system.