Reviews of Hereditary Genius

Publication/Creation

1869-1870

Persistent URL

https://wellcomecollection.org/works/gccejkkp

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution, Non-commercial license.

Non-commercial use includes private study, academic research, teaching, and other activities that are not primarily intended for, or directed towards, commercial advantage or private monetary compensation. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

UNIVERSITY COLLEGE LONDON
GALTON PAPERS
2/4/1/5

F1

Reviews.

Hereditary Genius: an Inquiry into its Laws and Consequences. By Francis Galton. Macmillan.

After years of attention to the subject, Mr. Galton has given to the world, in the form which ultimately strikes him as the best, his reflections on Hereditary Genius. In collecting and arranging the material for his work he has not been sparing of pains. He has accumulated a great mass of facts; he has invented a convenient notation; to supply the necessary defects of observation, he has had recourse to Quetelet's Theory of Probabilities; he has called to his assistance Mr. Darwin's hypothesis of Pangenesis. The use which he makes of that hypothesis marks him as an earnest rather than a prudent disciple of Mr. Darwin. He acknowledges in words, but almost ignores in practice, its provisional character, and allows it to shape the general considerations with which his work concludes. A large number of readers will, therefore, be either unable or unwilling to follow his speculations throughout. They may understand his tables, may learn his notation by heart, may appreciate his genealogical studies, may admire his acuteness in meeting difficulties of detail, and yet lose their way when they pass from lawyers, statesmen, and poets to gemmules and hybrids, to the convertibility of organisms and individual variation. He begins his inquiry inductively with our English judges, and arrives at generalisations that are much wider than humanity. Thus in discussing the subject of Hereditary Genius he finds reasons for strongly inclining to the opinion that the constitution of the living universe is a pure theism, and that its form of activity is what may be described as co-operative. With the space at our disposal it would be idle to attempt a discussion of a tithe of the questions which Mr. Galton raises. It will be sufficient to give an account of some of his main positions, and more especially of those which rest, not on hypothesis, but on fact.

In considering Hereditary Genius, Mr. Galton has to deal, of course, not with average people, but almost exclusively with eminent men. This is a select class. By an eminent man Mr. Galton means one who has achieved a position that is attained by only 250 persons in each million of men, or by one person in each 4,000. 4,000, he observes, is a very large number, so large as to be difficult for persons to realise who are not accustomed to deal with great assemblages. On the most brilliant of starlight nights there are never so many as 4,000 stars visible at the same time to the naked eye; yet we feel it an extraordinary distinction to a star to be counted as the brightest in the sky. If eminent men are so rare, we must expect to find in them a remarkable combination of qualities. No one can be regarded as having a natural claim to eminence who does not unite in himself the three separate gifts of intellect, zeal, and power of work. In the political world, social advantages have enormous influence; so that a man who is pushed into public life may win the title of eminent statesman without having the strong inner impulse of zeal or enthusiasm. When he is once embarked in public affairs the interest is so absorbing, and the competition so keen, as to supply the necessary stimulus to ordinary minds. Talleyrand, who thought there might easily be too much zeal in diplomacy, would possibly have passed his life in the same way as other *grands seigneurs* if he had not been ejected, on account of his deformity, from his birthright by a family council, and thrown into the vortex of the French Revolution. But the man whom nature has fitted for eminence is, in Mr. Galton's opinion, practically irrepressible. His energy is the consequence not of external but of internal necessity; he works, because he must work. An accident may, of course, remove him from the scene before he has been able to win distinction; but, if time is given him, he will make opportunity. The world is the field in which he fights, and he will win at last though the field is not entirely a fair one.

So much for the definition of Mr. Galton's most important term: his leading proposition is as follows:—If two children are taken, of whom one has an eminent man for his father and the other has not, the former child has an enormously greater chance of turning out to be gifted in a high degree than the other. The evidence produced in favour of this position is inductive. Mr. Galton first examines the family relations of the Judges of England between 1660 and 1865, and then extends his examination to statesmen, commanders, literary men, men of science, poets, musicians, painters, divines, and athletes. In the course of his book he deals with no less than 300 families, containing between them nearly 1,000 eminent men. Of this upper thousand some 400 are illustrious—that is, are eminent among the eminent; are mourned, when they die, by the intelligent part of the nation; obtain, or deserve to obtain, a public funeral, and rank in future ages as historical characters. The results at which Mr. Galton arrives by tabulating the relationships of the Judges are generally sustained, though occasionally modified, by his inquiries respecting eminent men belonging to the other classes. Out of the 286 Judges who fall within the limits of his inquiry, more than one in every nine has been either father, son, or brother to another Judge, and the other high legal relationships have been even more numerous. The kinsmen of Lord Chancellors have shown themselves far richer in natural gifts than those of the other Judges. To be convinced that the judicial faculty is not a technical aptitude, dissociated from other and even higher forms of ability, we have only to remember the names of Hyde, Copley, Cowper, Herbert, North, Vaughan, and Coleridge. Of the illustrious men who come under Mr. Galton's notice, exactly one-half have one or more eminent relations. To every ten illustrious men who have any eminent relations at all, we find about three or four eminent fathers, four or five eminent brothers, and five or six eminent sons. To appreciate the import of these results, we must bear in mind the numerical fact which we have already mentioned, that an eminent man is one of four thousand, and an illustrious man may be described as one of a million.

Mr. Galton, to his regret, is unable to solve the simple question whether, and how far, men and women who are prodigies of genius are unfertile. The world, he observes, is not agreed on the definition of genius; and the men selected as examples are usually ancients, or at any rate lived so long ago that it is often impossible, and always very difficult, to learn anything about their families. But he utterly dissents from the assertion of Prosper Lucas, that true genius is invariably isolated. The point at issue, however, is not so important in Mr. Galton's scheme as we might judge from the title of his book. He is more anxious about the destiny of the human race than about the lot of individuals, and can afford to allow that a very select minority may do their work effectually by leaving behind them ideas instead of children. According to his statistics, ability is transmitted much more freely in the male than in the female line. The only reasonable solution he can suggest, beyond that of inherent incapacity, is that the aunts, sisters, and daughters of eminent men do not marry, on the average, as frequently as other women. This may be a consequence of their being accustomed to a higher form of culture and intellectual and moral tone in their family circle than they could easily find elsewhere. Again, as Mr. Galton observes, one portion of them would certainly be of a dogmatic and self-asserting type, and therefore unattractive to men, and others would fail to attract owing to their having the shy, odd manners which are often met with in persons of genius. When we come to theology, indeed, the law apparently changes; for in the rather narrow and restricted circle of divines whose family history Mr. Galton has studied, the female influence is to the male as 72 to 27, instead of being, as in the average drawn from judges, statesmen, commanders, men of literature, and men of science, as 30 to 70. By way of explanation, he suggests that the female relatives of divines, unlike those of other eminent men, are not disinclined to marriage. Religious society is particularly large, owing to the habits of association for religious purposes; and within this society the choice of a husband is comparatively easy, since the ladies who move in it consider intellectual ability and a cultured mind of small importance when compared with pious professions. Mr. Galton, in the same rather cynical spirit, tries to dispose of the common opinion that great men have remarkable mothers. He accounts for the popular belief by the fact that great men have usually high moral natures, and are affectionate and reverential, inasmuch as brain without heart is insufficient to achieve eminence. Such men, he tells us, are naturally disposed to show extreme filial regard, and to publish the good qualities of their mothers with exaggerated praise. In the absence of proof, we may reasonably decline accepting this explanation, which, in order to lower the remarkable character of the mothers, really assails the moral discernment of the sons. The reasons which he gives for the tendency observed in the families of statesmen and judges to die out may not be wholly agreeable, but are founded, it would seem, on a broad basis of facts. He shall be left to state them in his own words:—

First, as to the Judges: there is a peculiarity in their domestic relations that interferes with a large average of legitimate families. Lord Campbell states, in a footnote to his life of Lord Chancellor Thurlow, that when he (Lord Campbell) was first acquainted with the English Bar, one half of the judges had married their mistresses. He says it was then the understanding that when a barrister was elevated to the Bench, he should either marry his mistress or put her away. According to this extraordinary statement, it would appear that much more than one-half of the judges that sat on the Bench in the beginning of this century had no legitimate offspring before the advanced period of their lives at which they were appointed judges. One-half of them could not, because it was at that stage of their career that they married their mistresses, and there were others who, having then put away their mistresses, were, for the first time, able to marry. Nevertheless, I have shown that the number of the legitimate children of the judges is considerable, and that even under that limitation, they are, on the whole, by no means an unfertile race. But do not the families die out? I will examine into the descendants of those judges whose names are to be found in the appendix to the chapter upon them, who gained peerages, and who last sat on the Bench previous to the close of the reign of George IV. There are thirty-one of them; nineteen of the peerages remain, and twelve are extinct. Under what conditions did these twelve become extinct? Were any of those conditions peculiar to the twelve, and not shared by the remaining nineteen?

In order to obtain an answer to these inquiries, I examined well the number of children and grandchildren of all the thirty-one peers, and into the particulars of their alliances, and tabulated them; when, to my astonishment, I found a very simple, adequate, and novel explanation of the common cause of extinction of peerages, stare me in the face. It appeared, in the first instance, that a considerable proportion of the new peers and of their sons married heiresses. Their motives for doing so are intelligible enough, and not to be condemned. They have a title, and perhaps a sufficient fortune, to transmit to their eldest son, but they want an increase of possessions for the endowment of their younger sons and their daughters. On the other hand, an heiress has a fortune, and wants a title. Thus the peer and heiress are urged to the same form of marriage by different impulses. But my statistical facts showed, with unmistakeable emphasis, that these marriages are peculiarly unprolific. We might, indeed, have expected that an heiress, who is the sole issue of a marriage, would not be so fertile as a woman who has many brothers and sisters. Comparative infertility must be hereditary in the same way as other physical attributes, and I am assured it is so in the case of the domestic animals. Consequently, the issue of a peer's marriage with an heiress frequently brings his title to an end.

Mr. Galton then proceeds to record and summarise the facts which corroborate his position, and the result is sufficiently remarkable. It appears that out of the thirty-one peerages in question there are no less than seventeen in which the hereditary influence of an heiress or co-heiress may be supposed to have affected the first or second generation, and that out of the twelve peerages which have failed in the direct male line, no less than eight failures can be accounted for by heiress-marriages. In this part of his argument Mr. Galton takes a far safer ground than when he attaches a statistical value to the astounding statement which he repeats on the doubtful authority of Lord Campbell. Extending his inquiry further, he treats the statesmen of George III. and the Premiers since the accession of George III. down to recent times, in the same way that he has treated the Judges. Of these there are twenty-two whose pedigrees he can easily find. Of the twenty-two fourteen have left no male descendants, and seven of these or their sons married heiresses. This is only a small part of the evidence by which Mr. Galton proves that marriage with heiresses is a notable agent in the extinction of families. If the family survived, we know that its genius need not survive with it. After three successive dilutions of the blood, the descendants of the Judges appear incapable of arriving at eminence. Mr. Galton remarks that this is not surprising, even if we bear in mind the far greater length of time through which features or diseases may be transmitted. Ability must be based on a triple footing, every leg of which has to be firmly planted. In order that a man should inherit ability in the concrete, he must inherit three qualities that are separate and independent of each other; he must inherit capacity, zeal, and vigour, for unless these three, or at the very least two of them, are combined, he cannot hope to make a figure in the world. The probability against inheriting a combination of three qualities not correlated together is necessarily in a triplicate proportion greater than it is against inheriting any one of them.

The conclusions we have mentioned, so far as they are based on systematic inquiry, throw much light on the laws of Hereditary Genius, and are not in themselves improbable or surprising. The mind has its proper organ, and that organ, even when it is of more than average development, will not for the most part act with continuous vigour when it is not associated with a generally powerful organisation. On the other hand, high mental activity cannot long be passed on from father to son, because it destroys the balance of the bodily functions; it gradually consumes other forms of energy, or is itself consumed by them. But Mr. Galton is not quite content with ascertaining some of the laws which regulate the transmission of high ability; from those laws he deduces certain consequences, into which his opinions as a disciple of Mr. Darwin obviously enter as an element. He owns himself exceedingly ignorant of the reasons why we exist, though confident at the same time that individual life is a portion of some vaster system that struggles arduously onwards towards ends that are dimly seen or wholly unknown to us. He looks for the improvement of the human race, as of other forms of organic life, through the permanence and gradual elevation of the stronger and nobler types, while the weaker and less capable die out. He therefore protests, in strong terms, against the notion that able and vigorous men should delay the period of marriage till middle age. The maxim of Malthus, he tells us, if put forward as a rule of conduct for the prudent part of mankind to follow, while the imprudent are necessarily left free to disregard it, is most pernicious in its bearing on the race. If acted on, it would cause the race of the prudent to fall, after a few centuries, into an almost incredible inferiority of numbers when compared with the imprudent. If it seems monstrous that the weak should be crowded out by the strong, it is more monstrous still that the races best fitted to play their part on the stage of life should be crowded out by the incompetent, the ailing, and the desponding. Mr. Galton advises the sons of distinguished men who are themselves gifted with decidedly high ability, as tested at the University or elsewhere, to marry early in life. If they have a large family, the odds are in their favour that one at least of their children will be eminently successful in life, and will be a subject of pride to them and a help to the rest. The Peerage he regards as a disastrous institution, owing to its destructive effect on our valuable races. He cannot think of any claim to respect, put forward in modern days, that is so entirely an imposture as that made on the ground of descent by a peer, who has neither been nobly educated, nor has any eminent kinsman within three degrees. He holds that the best form of civilisation in respect to the improvement of the race would be one in which society was not costly; where incomes were chiefly derived from professional sources, and not through inheritance; where every lad had a chance of showing his abilities, and, if highly gifted, was enabled to achieve a first-class education and entry into professional life, by the liberal help of the Exhibitions and Scholarships which he had gained in his early youth; where marriage was held in as high honour as in ancient Jewish times; where the pride of race was encouraged, and where the weak could find a welcome and a refuge in celibate monasteries or sisterhoods.

All this has an inviting symmetry, and is interesting, moreover, as casting light on the moral tendencies of a physical school which is spreading far and wide among us. We will only observe, in conclusion (and Mr. Galton would allow the truth of the observation), that the scheme is not quite complete. When genius reaches its culminating point, it seems, as we have seen, to escape from the law of inheritance. Its vehicles are not, as a rule, men of a strong bodily frame, to whom physical life is an enjoyment they pass on to their children. Gifted men, as Mr. Galton observes, belong to two categories, the very weak and the very strong; and as far as the result of their labours is concerned, the weakest are sometimes the strongest. There are famous cases in which a powerful organisation has been made unusually sensitive, and therefore unusually sympathetic, by some disease or shock, and has thus derived from infirmity an extraordinary power of influence. The deepest impressions have been made on millions of men engaged in the struggle for life by a few spirits who have not looked on life as a thing worth fighting for. Inherited ability is an affair, at most, of a few generations; but discipleship lasts on for centuries as a form of spiritual sonship. The sacrifice of the weak to the strong prevails widely in nature, and has undoubtedly its good effects on the human race; but the greatest achievements, after all, may be those of voluntary and conscious self-sacrifice.

The Duke's Honour. By Edw. Wilberforce. Three Vols. Hurst and Blackett.

The Duke's Honour is by no means an ordinary novel. It is, unless we mistake, Mr. Edward Wilberforce's first production of the kind; though he is known already as the author of *Social Life in Munich.* There is not a single character in the story, from beginning to end, such as wins the reader's hearty sympathies. The hero, if Mr. Charles Roby is to be dignified with that title, and his affianced, the heroine, are merely dummies; unattractive dummies, too. Garvil, whose risks and schemings form the staple of the book, is only a clever good-looking swindler; and Miss Villars, with all her fascinations, is simply an adventuress, and not a very reputable one. Yet with all these drawbacks, *The Duke's Honour* is not an easy book to lay down. Garvil's ingenuity, adroitness, and daring take the reader by storm, and one finds oneself unconsciously and unwillingly enlisted on his side, while regretting all the while that his ability is perverted to so unworthy purposes. The whole book teems with plots and counterplots. Every one is mining or countermining. The conversations, which are well sustained, are a series of fencing-matches. One is reminded continually of the lady who used to "take her tea by stratagem." The scene is laid for the most part at a German watering-place, with its "trente et quarante" and "roulette" tables. Mr. E. Wilberforce modestly deprecates any comparison of himself with Thackeray. But there is a good deal of Thackeray's quiet and polished satire in *The Duke's Honour*; perhaps still more which reminds the reader of *Gil Blas.* But what can be said for the probability of a story which ends by making a quiet English clergyman go and break the bank at the gambling establishment of Waldesheim in order to get money for restoring his church? As this is a first appearance, and as there is an originality and cleverness in *The Duke's Honour* (not a very apt name, by the way, for the story) which are not to be met with every day, we subjoin one or two extracts from its pages. May we not hope that the writer will devote his powers to a worthier subject next time?

Here is an amusing scene, in which a choleric old German Count lectures his son for thinking of an imprudent marriage. It may take its place with Sir Anthony Absolute and the Captain. Count Perkenstein is a "grand official at the Court of Vienna":—

The old Count had been called back to Vienna before his son left Kesselbad, and there was nothing for it but to wait till the former could come again. Knowing that all was right, the Count was in no hurry; and when at last he came, he wanted to have everything settled without keeping him waiting. His son was shown into his bedroom the morning after his return from Vienna, and the matter assumed its business aspect.

"Now, Louis, what has she got?" were the father's first words.

"That is just what I have never yet been able to ascertain," answered the son apologetically.

"You don't tell me that you have never asked! What have you been doing all this time? I trusted to your being ready for me when I came."

"I have done my best," said Count Louis, rather sulkily, and looking round for a chair; "but I can't ask her point-blank, and they don't seem disposed to tell me without asking. I think they have been waiting for you."

"Don't take that chair," cried the old Count; "that is my uniform. I must see the Grand Duke to-day. Well, I will see Mrs. Villars too, and ask her myself. You are certain it's all right?"

"As certain as a man can be."

"That's well, because, you know, I can give you nothing. You have had everything I could give you at your birth, when you were made a member of the nobility. I gave you a title and you must make use of it."

"I think I have made a very good use of it in this case. All I know is that it procured me an instant hearing."

"Of course it did; but now we want to know to what tune. You say the girl is rich, but you have not asked point-blank how much she has. Have they ever told that they had anything?"

Count Louis rose from the chair he was occupying in conjunction with his father's cloak, and swept the cloak off the back of it on to the floor.

"Well, now I come to think of it, they have not."

"Gracious heavens!" exclaimed the old Count, rushing at his cloak, stopping short as he was in the act of picking it up, and shouting for his valet. "Supposing they have nothing?"

"In that case," replied Count Louis, sitting down on the uniform, "you will probably have to pay for their board and lodging."

"Take Count Louis off that chair," said the father to his valet, who entered at this moment. "And pick up my cloak. And hang it up in the armoire. And leave the room. Now," said he to his son, when the valet had obeyed these orders, and Count Louis was standing meek and sobered by the suppressed rage glaring through his father's every feature; "explain your impertinence."

"No impertinence was intended, my dear father."

"It was uttered. Well?"

"I am sure they have money."

"Well?"

"If not they must be impostors."

"Well?"

"You don't suppose that, do you, papa?"

"I suppose nothing. Well?"

"Well," repeated the son, puzzled by the grim recurrence of the phrase. "I do not quite understand you."

"Nor I you, and therefore I ask. Explain your impertinence." The last three words were shouted, as if they were a command to a regiment.

"Oh! I beg your pardon, I merely meant a harmless joke."

"I don't see it."

"Only this, that if they have no money, and in fact are impostors, and perhaps leave Waldburg without paying their bill, the landlady might possibly—I don't know that she would—but she might possibly—though there is really no reason for it—but, still, as I have been there so much, she might come on you for the money."

"So! you think so?"

"No, papa, I don't think so, but——"

"And if she did," said the old Count, who was gradually working off his excitement, and was pacing up and down the room with his hands clenched behind him, forgetful of his baldness and his dressing-gown.

"Oh! you need not trouble yourself about that."

"Do you know what I should tell her?"

"No, but I think I can guess."

"Can you?"

"Yes, you would decline to enter into the subject."

"No, sir," said the father, stopping right in front of his son, putting his face close to his son's face, and roaring so that his words had a windage, like a cannon-ball; "I should tell her to go to ——!"

After this outburst the Count gradually recovered his temper.

Here we have the old Count himself going to be lectured in his turn:—

The old gentleman was rather nervous as he rang at the door and asked for Mrs. Villars. He was relieved when he found himself in the presence of his young favourite. But though her presence was a temporary refuge, Count Perkenstein felt that his time was being wasted. He had to learn the prospects of his future daughter without delay, and though his duty was unpleasant it must be undertaken. So after a little dalliance and a few compliments, the Count asked for Mrs. Villars. "I must see her on an affair of urgency," he said, with sundry twitches in the neighbourhood of his mouth; "and I am afraid I must deny myself the pleasure of your company during the interview."

"How unfortunate! Cannot possibly see you to-day; she is seriously unwell."

"Has she had a doctor?" the Count asked.

"No, because she knows the nature of her illness; it is one that comes at regular intervals, and is sent away by absolute quiet. If I told her that you wished to see her, I know it would make her worse. But is your business so very urgent? Cannot you wait?"

"I [illegible] wait perhaps till to-morrow."

"To-morrow is Sunday," Miss Villars replied, with some severity.

"Excuse [illegible] I had forgotten your English prejudices," said the Count. He was none the less charmed at their existence. The Villarses must be rich if they could afford the luxury of an English Sabbath.

"Do not call them prejudices, M. le Comte; do not apply that name to our religion."

"Pardon me—excuse [illegible] pray pardon me—the word escaped me. I was thoughtless [illegible] not visit me [illegible] unchanged. Your aunt, then, would not see me to-morrow?"

"M. le Comte! Did I not say to-morrow was Sunday?"

"Again excuse me! But Monday I must return to Vienna. I do not know if I can, by any means, postpone my journey till Tuesday."

"Even if you did, I am afraid I could not promise that my aunt would see you on Monday. The attacks are uncertain in their duration; she may be in bed a week with them."

"I must then give up all hope of seeing her?"

"Unless you can wait her recovery," said Miss Villars, in a distant tone, and without any doubt [illegible] that the Count would do well to wait.

"That unfortunately is out of the question. My duties at the Imperial Court are pressing; it is impossible to hold a high and responsible office without being called upon to give up many of those home comforts which humbler people can enjoy. My family life must yield to my public life; it is well if I can avoid the further sacrifice of my duty as a father."

Miss Villars sighed. The picture of Count Perkenstein's devotion quite overcame her. "But when you came back from Vienna, [illegible] also blamed, bashfully.

The Count gallantly took her hand. "I hope not to come back from Vienna till I am called upon to be present at my son's wedding. This time Miss Villars was not overcome; she was overpowered. "But it is this," continued the Count, "which makes my business so difficult now. If I cannot see Mrs. Villars, how can I speak to her of these business details which are so essential? How can I trouble you with them? [illegible] I could venture to do so [illegible] too—and yet I have no other alternative."

"Oh! if that is your only difficulty, M. le Comte, it may soon be at an end. I am sure my aunt would be quite willing to let me discuss these matters with you. You do not know the independence of English girls, [illegible] you think business is beyond them; and [illegible] I am always accustomed to help my aunt in domestic matters. I should think myself fit for very little if I did not."

"What a good wife she will make Louis!" thought the Count; and encouraged by such dexterity, he began his story. Louis was a younger son: his pay was small; his allowance was still smaller. It was unfortunately necessary that he should marry a rich wife. What was the sum Miss Villars brought with her, or what was Mrs. Villars prepared to settle upon her?

The young lady looked thoughtful.

"I see your difficulty now. Your son cannot support a wife; he must get one who can support him."

"Precisely. And you know, my dear young lady, he has expensive tastes; he has a position to keep up; his wife will be Countess Louis Perkenstein, and she will also have a position to keep up. A position is not to be kept up without money. She must therefore have money."

"Of course. That is very true. And you say Louis—Count Louis—has none?"

"Not a sou."

"But you, his father, you have money that you can give him?"

"No, indeed. I have only my own income, and I have to keep up my position, a high, a responsible, and onerous position. My other sons have been a severe tax on me. I have told Louis that he must do better. When he first told me that he had pledged you his word, I asked him if you were rich: and I reminded him that if you were not rich, it would be out of the question for him to marry you, for he has nothing, and I have nothing to give him, and he has no way of making anything. But he told me you were rich, and I consented."

"He told you I was rich?"

"Yes, he certainly did, and I never doubted it for a moment. All I want to know is how much you bring with you?"

"If Count Louis told you I was rich, he must know that better than I do."

"No, my dear, he does not know what you have got, or else he would have told me. But he told me you had money. The only question I was to ask your aunt was, how much it was."

"But as Count Louis told you, Count Louis must know."

"On my word of honour he does not. Do not tantalise me, I implore you. Tell me what your fortune is, as I cannot ask your aunt."

"M. le Comte, if you were to ask my aunt, she would give you just the same answer. Count Louis has said I was rich—I never heard it from any one else. Count Louis did me the honour to ask for my hand. He never said I was to bring anything in it. Had he told me that he wanted a rich wife, I should have told him that I should not suit him."

But our limited space precludes our finishing the dialogue. We must refer our readers to the book itself, if they would know how the old Count receives his *congé* from Miss Villars.

Church Work (Hayes) intermingles from time to time with its solid good, elements not likely to help it onwards. "Catholicity"—*i.e.*, extreme ritualism—in a remote Welsh village, so situated that no one knows of it out of the little place itself, will scarcely prove to be much of a "mission" of anything, ritualism or aught else. And Mother Margaret O'Hallahan is hardly the type of conventualism we could possibly choose for admiration. The general character of the work, however, which this periodical represents, is, we believe, of a much sounder and more sensible sort.

We heartily wish success to the *Irish Church Society's Journal* (Dublin: Ponsonby). The truths it advocates sadly want support, vigorous, able, and wise, in the Irish Church.

The first volumes respectively of Bleek's *Introduction to the New Testament* and Keil's *Introduction to the Old Testament* form the last issue of Messrs. Clark's Foreign Theological Library: both of them valuable works; yet we cannot but think that some plainer warning should have been given respecting the rationalistic tendencies of the former. Remembering the inevitable result of Schleiermacher's theory, when stripped (as in course of time it inevitably has been stripped) of the hazy sentiment of piety which disguised its real mischief in its originator's hands,—remembering also that Bleek came in matter of fact from Schleiermacher's school,—it would have been as well to warn readers in some plain way of that which is quoted in the Preface, eulogistically, as (in Bleek's own words) marking his own theological character—viz., that he was one of those who, "instead of identifying in an utterly unhistorical and irrational manner God's Word and Holy Scripture, regard it as their main task to discern the Word of God in Holy Scripture." The principle *may* be explained in an innocent sense; but it is ominously open to include a very special and fatal error of this present time.

Some further volumes of *Lange's Commentary* have been issued by the same publishers (T. and T. Clark); of which we have seen one volume on the Epistle to the Romans and another containing Proverbs, Ecclesiastes, and the Song of Solomon. We believe there are some other volumes in addition to these, but we have not seen them.

The first volume is published of a *Homiletic Analysis of the New Testament*, by Joseph Parker, containing the Gospel of St. Matthew (Hodder and Stoughton). The book consists of what appears to be a fair, moral, common-sense exposition of the Gospel narrative, not exhaustive even of that limited aspect of it, and hard and barely reverent in tone, but usually sensible. There is nothing, or next to nothing, in it upon doctrinal subjects.

Dr. Lillie's *Lectures on St. Peter*, published after the writer's death by Dr. Schaff (Hodder and Stoughton), contain a sufficient compendium of the results of modern commentators, are written in a devout and kindly tone, and sum up the author's own conclusions at any rate impartially and sensibly. The writer was a Scotch Presbyterian minister, settled in America; but there is not so much to deciderate in his line of doctrine, even upon crucial passages, as might have been expected, except perhaps the omission of a phrase or two characteristic of the body to which he belonged.

Among missionary publications *Mission Life* is one of the most recommendable. Not only is its tone good, but its contents seem well chosen and sensible, and it abounds in good illustrations. It has reached its sixth volume (for 1869) under the title of *Mission Life; or, Readings on Foreign Lands* (Macintosh). When one remembers the accusations of Romanists like Mr. Marshall, and the odd things (to say the least) that come to light now and then from, *e.g.*, China, one is glad to find the materials for an answer on behalf of our missionaries. And that answer is to some extent here furnished.

To the late Rev. Thomas Shann himself, no doubt, the "considerations" of *The Doctrine of Election* was a "godly consideration." But we cannot think his collection of quotations from sundry English divines, which is published under that title (Macintosh) will be very profitable to other people.

Mr. Bosanquet's *Messiah the Prince; or, the Inspiration of the Prophecies of Daniel*, &c. ("being a Rectified System of Scripture Dates, throwing Light on the Prophecy of the Seventy Weeks, and an Appendix on the Sabbatical Years and Jubilees," &c.), has so far found readers as to have reached a second edition (Longmans). A Preface to the new edition contains, we regret to see, some very painful expressions respecting the writer's faith—as, *e.g.*, a condemnation of prayer to our Lord, and a seeming denial of the Personality of the Holy Spirit; beside which it is but a light thing that Mr. Bosanquet should fall into the ignorant confusion of attributing to the Roman Catholics a division of the Commandments as old as St. Clement of Alexandria and St. Augustine; however convenient that division may be to shelter Romanist practices. In truth, Mr. Bosanquet is so zealous for the conversion of the Jews, that he is disposed to manipulate the Christian faith itself in order to accommodate it to Jewish error.

It is even more important now than it was a year ago to demolish the crotchet raised by Dr. Maguire Brady, to the effect that the succession of the Irish Church was actually broken at the Reformation, and specially during Elizabeth's reign. Mr. W. H. Hardinge has effectually done this in a thick pamphlet of facts and dates, entitled *Narrative in proof of the Uninterrupted Consecrational Descent of the Bishops of the Church of Ireland from the Bishops who in the Year 1536, represented the Bishops of the Early Irish Church*, &c. (Longmans). He has made some mistakes, as *e.g.* in p. [illegible], where he makes thirteen less one to be ten. But the elaborate table of facts and authorities, which makes up thirty pages of Appendix to the pamphlet, is very valuable. It is also cheering to find that Irish Churchmen attach importance to the inquiry.

It is to be hoped that Bishop Coverdale was more sincere than we fear can be said of the Duke of Somerset, under whose patronage, and with a Preface from whose pen, Coverdale in the time of Edward VI. translated a German tract by one Wermullerus, under the title of *A Spiritual and most Precious Pearl, teaching all Men to love and embrace the Cross*, &c., reprinted now and re-published, but without a vestige of a date, by W. Tegg.

The collection promises to be of an omnium gatherum sort, and the title probably will be, if it is not already, a misnomer. But a collection of specimen sermons of "English, or English-speaking, Christian Fathers" cannot but be interesting. The first number of such a series appears under the title of *Patres Christiani Anglicani*: Exemplary Discourses of Great English Preachers from the time of Wicliffe; and contains "Seven Short Sermons by John Wicliffe, and Fragments from his Writings: also Wyclyffes Wycket whych he made in Kyng Rycharde Days the Second" (W. Wesley).

TABLE-TALK.

Many of our readers will be glad, especially at the present time, to be reminded of the following inscription to be seen on the front of the Greek Catholic Church in London Wall, which was opened in 1849. It is in pure and classical hexameters and pentameters. The letters at the end signify the date above named:—

[illegible Greek verses, four lines] A. [illegible]

Mr. Bentley is about to publish a translation of the Duc d'Aumale's *History of the House of Condé*, under the sanction of his Royal Highness, from the original by the Rev. Brown-Borthwick; also, *Travels in the Air*, by M. Glaisher and others, with numerous full-paged coloured lithographs and woodcuts.

The library edition of the *Ingoldsby Legends*, recently published, contains several new poems, and is made more attractive to the great body of readers by a number of illustrative anecdotes relating to these famous legends, which fame is, by-the-bye, acknowledged by the Pope, as the work is included in the *Index Expurgatorius*.

The following rather interesting results relating to the Romanists in England are gleaned from Mr. Davenport's recently published *Denominational Statistics*:—

In 1841 they numbered but 1·73 per cent., but in 1851, obviously as a consequence of the immigration of the Irish at the time of the famine, they numbered 4·73, and in 1864 they had reached [illegible]. In 1868 they had receded to 4·63. So that it appears the proportion of Roman Catholics has remained almost stationary since 1851, notwithstanding that the Irish immigration is not yet at an end. It is true that chapels, and monasteries have increased, but they have not yet succeeded in meeting the additional requirements of the great accession at the close of the [illegible] decade of the century. In 1841 there was a chapel to every 849 Romanists. In 1868 there were 1,300 Romanists to every chapel. There has been [illegible] building industry since then, and now there is one chapel to every 970 worshippers.

The *Architect* states that M. Gallait, the historical painter of Brussels, has been chosen as a Foreign Associate of the Paris Academy of Fine Arts, in the place of the late Frederick Overbeck.

If it has been "raining mitres" of late, it would seem that it is beginning to "rain clubs" at the West-end. The new "Allied Universities Club," which we have already mentioned in this column, opens on the 28th inst.; the premises of the "Gryphon" have been taken by "The Junior St. James's," now in the course of formation; the "Gresham" is about to put forth a West-end offshoot, to be called "The Corinthian;" and in Grafton-street, Bond-street, has been started "The Colonial," a proprietary club, under the auspices of Sir George Grey, late Governor of New Zealand, and of other gentlemen connected with our colonies.

There is nothing in the world like frankness in stating one's motives, and the following, therefore, is charming: it is an advertisement in the *Times*; the italics are our own:—"A lady, *anxious for the advancement of her daughter*, is desirous of receiving into her establishment the daughter of a nobleman or gentleman, entertaining similar views. Her house is near the Crystal Palace, and its extensive gardens contain croquet and archery grounds. The classical studies of the Palace cannot be too highly estimated, and with other resources will ensure a highly accomplished finish to any young lady desirous of availing herself of the advantages here proffered. Letters addressed," &c.

Mr. Mackenzie Walcott publishes in the *Building News* a very interesting ground-plan of the ancient "Carthusian Priory of the Salutation" (afterwards known as the Charterhouse), as it appeared about the year 1500, showing the Chapel, the Chapter-house, the Sacristy, the Prior's Lodge, the "Flesh Kitchen" (or "Egypt," as it was called), the Mill, the Brewhouse and Pond, the Cloisters, Petty Cloister, the Monks' Cells, each with a tiny garden, and finally "the Great Conduit," which stood in the centre of the principal Quadrangle.

M. Charles Clermont-Ganneau, of the French Consulate in Palestine, writes from Jerusalem to the *Times*, claiming a share, conjointly with M. Deutsch and others to whom the whole credit has been given, in the discovery of the "Moabite stone," and in the interpretation of the inscription upon it. His account of the stone is to be found in the *Journal Officiel* of Feb. 5th, and in the *Journal des Débats* of Feb. 6th. He agrees with M. Deutsch in referring it to about B.C. 900, or a century after the reign of King Solomon: and a "dissertation" from his pen upon the stone and its inscription may be expected to appear before long under the auspices of the Academy of Inscriptions at Paris.

Messrs. Edwards and Kidd are bringing out this week, in "elephant" folio, the first part of their reproductions of Albert Durer and L. Van Leyden, in permanent colours. It consists of no less than sixty-eight photographs from prints and drawings in the possession of the Burlington Fine Arts Club. The other and concluding part will be ready early next month.

Some very able letters on the Bank Charter Act, signed "Mercator," appeared in the *Times* a few years ago. They have now been owned, and are to be found reprinted in a volume of *Tracts and Pamphlets*, by Lord Overstone, collected and edited by Mr. J. R. M'Culloch.

We have had sent to us the following version of the pasquinade at the end of our Italian Correspondence last week:—

[illegible Latin verses and English translation, eight lines]

The *Morning Post* states that it is in contemplation to restore the Lady Chapel of Chichester Cathedral, as a memorial to the late Bishop, Dr. Gilbert. The chapel, which is said to be the work of another Gilbert, Bishop of Chichester, at the close of the thirteenth century, has long been desecrated by being made to serve as a library.

It has long been known that Stoke Newington has numbered among its residents more than an ordinary share of distinguished persons, from Thomas Sutton, the founder of the Charterhouse, down to Samuel Rogers of our own day. The *North Londoner* gives the following list of its inhabitants during the last three centuries:—

Sir John Popham, Chief Justice; Charles Fleetwood, Parliamentarian General; Daniel Defoe, author of "Robinson Crusoe;" Dr. Isaac Watts (who died at Lady Abney's house here, 1748); Sir Thomas Abney, M.P., his great friend [illegible]; Thomas Day, author of "Sandford and Merton;" John Howard, the philanthropist; and James Brown, F.S.A., historian of Stoke Newington, his native place, who died in 1857. [illegible] also were buried Edward Massie, Parliamentarian Governor of Gloucester, 1649; Thomas Manton, its ejected vicar, a voluminous writer, 1677; Bridget Fleetwood, wife of the General, and eldest daughter of Oliver Cromwell, 1681; Samuel Wright, Nonconformist divine, 1746; and James Brown, who first projected the "London Directory," 1788.

The letter of the English Archbishops to the Irish Primate having been criticised because they begin a joint letter "My dear Lord Archbishop," and then proceed with plural pronouns, "we" and "our," throughout the letter, *Dean Alford* says in defence—

Will you allow me to repeat the following story, already published in my *Queen's English*? The churchwardens of a parish near Bristol, having reason to make a presentation to the Bishop, met to draw it up. Churchwarden A brought the draft, beginning "My Lord." But Churchwarden B was a man of education, with the rules of grammar ever on his tongue. "My" was, of course, incorrect where the presenters were two persons. The presentation, he maintained, ought to be corrected, and it narrowly escaped going up to the Bishop addressed to him as "Our Lord!" The title "My-Lord" is now regarded universally as a compound and unalterable word; so much so that, as every one knows, our Government Boards publish their announcements as "My lords." Nor is this confined to English. "I Monsignori" represents a well-known class of prelates at Rome. Can any one imagine such an absurdity as the two Archbishops addressing their brother of Dublin as "Our dear Lord?"

The Markets.

MONEY MARKET, TUESDAY EVENING.

The English Funds are firm, at a slight improvement. Consols for money are quoted 93 to 93⅛, and for the account 93⅛ to 93¼. Reduced and New Threes 91⅞ to 91⅞; India Four per Cent. Stock is 99⅞ to 100; and India Bonds 20 to 25; Exchequer Bills, par to 5s. prem. The Foreign Stock Market has been quiet:—

Egyptian Sevens of 1868, 82 to 82½; ditto Viceroy Seven per Cent. Loan, 86 to 86½; Peruvian Fives of 1865, 82¾ to 83¾; Turkish Fives of 1865, 46 to 46½; Argentine, 89¾ to 90½; Brazilian Fives of 1865, 87½ to 88; Italian of 1861, 55¾ to 56¼; Mexican, 14½ to 14¾; Spanish of 1867, 27¼ to 27½; ditto of 1869, 26¾ to 26⅞; Turkish Sixes of 1869, 45¾ to 46; ditto 1869 Scrip, 2¾ to 3¼ prem.; Russian Scrip, 4 to 4½ prem.; Chilian Scrip, 1¼ to 1¾ prem. The Five-Twenty United States Bonds, 1862's, 90¾ to 90⅞, the 1865's at 89¾ to 89⅞, and the 1867's 89½ to 89¾; the Ten-Forties, 86½ to 87; Illinois Railway Shares, 115¼ to 116; Eries, 21½ to 21¾; Atlantic Bonds and Debentures, 29⅛ to 29½, and 32½ to 32¾.

The following are the latest quotations in the Railway market:—

Great Eastern, 39⅝ ⅞ ¾; Great Northern, 114½ ⅝; Great Northern A, 107½ ¾; Great Western—Original, 69½; Lancashire and Yorkshire, 130¾; London, Brighton, and South Coast, 46½ ⅝; London and North-Western, 129½; London and South-Western, 89; Manchester, Sheffield, and Lincolnshire, 52¾; Metropolitan, 80; Metropolitan District, 46 50½; Midland, 124 ⅝ ½; Midland—Birmingham and Derby, 94; North British, 34½; North-Eastern—Berwick, 132⅝ ⅞; ditto, Leeds, 80½ ¾ ½; ditto, York, 126; ditto, Carlisle, 165; ditto, Stockton and Darlington, 124¾; South-Eastern, 74⅞.

(*From the County Chronicle.*)

CORN EXCHANGE, MONDAY, MARCH 21.

With mild and calm weather, there has been a full attendance at market and fair supplies, but the tone of trade has been poor. Supply moderate of all articles, but making an average aggregate, condition passable. English wheat in slow demand, at fully 1s. per qr. decline; foreign 1s. to 2s. cheaper to sell in retail. Picked lots of wheat, English and foreign, made late rates occasionally. Flour, country sorts, 1s. per sack lower from this day week. Foreign and London-made flour without alteration in price; sales generally small. Maize has receded from its advance of last Monday; demand trifling. All sorts of barley slow to sell, but the best malting qualities are steadily held at late quotations. Oats have lost 3d. to 6d. per qr. of their last week's rise, in this respect following maize. Beans and peas steady in value and retail demand. The seed market was busy, and prices firm. Hemp seed up to 50s.; canary-seed in good supply, and pressed on buyers. The cargo trade is stronger than the market trade.

Home Produce.—*Wheat*, Home Counties, white, new, 42s to 46s; old, 44s to 48s; red, new, 39s to 44s; old, 40s to 46s; Eastern Counties, 38s to 43s. *Flour*, per sack of 280lb., town-made whites, nominal, 43s; London households, 36s to 37s; London seconds, 32s to 35s; Norfolk and country-made, 29s to 31s. *Barley*, malting, new, 34s to 43s; grinding, 25s to 28s. *Malt*, best, 59s to 63s; secondary, 54s to 58s; brown porter malt, 53s to 56s. *Rye*, 32s to 34s. *Beans*, Mazagan, Essex, &c., 38s to 40s; harrow, 38s to 42s; pigeon, 38s to 46s. *Peas*, blue boiling, 38s to 40s; white boiling, 36s to 38s; non-boilers and dun, 35s to 36s; maple, 40s to 42s. *Oats*, English white or black, 22s to 28s; Scotch, 21s to 28s; Irish, 20s to 24s. *Tares*, spring, [illegible] to 50s. Foreign Produce—*Wheat*, Prussian high mixed and white, 43s to 48s; Baltic, red, 40s to 46s; Russian, hard, 40s to 43s; ditto, soft, 37s to 40s; Danube and Hungarian, 36s to 42s; American, 43s to 44s; Pacific, white, 48s to 50s. *Flour*, French, per sack 280lb., 30s to 38s; Hungarian, — to 36s; American, per 196lb. barrel, 22s to 25s. *Maize*, yellow, Danubian, &c., 28s to 29s. *Barley*, Baltic and French malting, per 424lb., 28s to 30s; Danubian and Black Sea, per 400lb., 22s to 26s. *Oats*, Swedish and Dutch, 20s to 22s; Russian, 200lb. per bushel, 16s to 20s. *Beans*, African Mazagan, 36s to 40s; French, German, and Dutch, 40s to 42s. *Peas*, Canadian boilers, 40s to 42s; feed and non-boilers, [illegible] to 38s. *Tares*, spring, 38s to 45s. *Feeding Stuffs*, locust beans per ton, [illegible] to 160s; linseed cake, 270s to 280s; rape cake, 125s to 130s; cotton-seed cake, [illegible] to 150s; rice meal, 100s to 120s.

BREAD.—The price of bread in the City and at the West-end is 7d to 7½d the 4lb loaf, but in other parts the bakers are selling bread at 6d to 7d.

BUTTER.—Best fresh, 17s; seconds, 14s; Ostend fresh, 11s to 16s per doz.

HAY AND STRAW.

Cumberland—Superior meadow hay, 4l 5s to 4l 8s; inferior, 3l 10s to 3l 14s; superior clover, 4l 5s to 4l 10s; inferior, 4l 10s to 5l 14s; straw, 1l 10s to 1l 14s per load. *Smithfield*—Prime meadow hay, 3l 15s to 4l 5s; inferior, 3l 0s to 3l 10s; prime clover, 4l 10s to 4l 15s; inferior, 4l 0s to 4l 15s; straw, 1l 4s to 1l 10s per load.

HOPS.—BOROUGH MARKET, MARCH 21.—Our market remains without any change, and prices of new English continue to be well maintained, but there is very little trade moving in other descriptions. The quotations of choice new foreign and American are unaltered, but, owing to the want of business, must be considered merely nominal. Yearlings show an improvement, being still unnoticed. Imports for the week ending March 19, 2,004 bales, against 2,253 the previous week. New York advices to the [illegible] report the market as dull, but the continued large exports to Europe keep prices tolerably firm.

METROPOLITAN CATTLE MARKET, MONDAY, MARCH 21.

The number of beasts this morning was much larger than for the last week or two, as the foreign were more plentiful. The English supply was of good quality, but the foreign were, with a few exceptions, rather rough. Business was dull and heavy to-day, and prices lower. The dead markets during the past week have been glutted, and this, with the increase in beasts, has pulled down prices. Many good beasts were selling at 4s. 8d. per stone, and 5s. must be considered as the general top value; but few, and they only the best Scots, that made 5s. 2d. Sheep were likewise in much larger numbers, and the trade was worse, and prices 2d., and in some instances 4d., per stone lower. The clipped sheep did not suffer to that extent, the weather being in their favour. We cannot quote the best Downs and half-breds at more than 5s. 4d. this morning, and those out of the wool at 4s. 6d. to [illegible]. Lambs were selling fairly early in the morning, but later in the day the demand fell off, and they might be bought easier. The rates made were 7s. to 8s. per stone. Calves were short in excess, but the quantity arriving dead is large, and they brought down prices a good deal. The top value of the best English did not exceed 5s. 8d. per stone. There were scarcely any pigs here; prices may therefore be quoted as unaltered in the little business doing.

Head of cattle.—Beasts, 3,301; sheep and lambs, 15,550; calves, 380; pigs, 20. Foreign—Beasts, 941; sheep, 2,130; calves, 131; pigs, —. To sink the offal—per 8lb.—Beef, 4s 0d, to 5s 2d; mutton, 4s 8d, 5s 4d; veal, 5s 0d, to 5s 8d; pork, 5s 0d, to 5s 8d, 5s 4d.

F. 2r

the foregoing experiments is not of the same brightness throughout its entire transverse section. Pass a white switch, or an ivory paper-cutter, rapidly across the beam, the impression of its section will linger on the retina. The section seems to float for a moment in the air as a luminous circle with a rim much brighter than its central portion. The core of the beam is thus seen to be enclosed by an intensely luminous sheath. An effect complementary to this is observed when the beam is intersected by the dark band from the platinum wire. The brighter the illumination the greater must be the relative darkness consequent on the withdrawal of the light. Hence the cross section of the sheath surrounds the dark band as a darker ring.

The following four paragraphs, though printed nearly two months ago, have not been published hitherto. Might I say that whatever my opinion on the subject of "spontaneous generation" may be, I purposely abstain from expressing it here? That expression shall be given at the proper time. I desire now to show the practical value of the luminous beam as an investigator of the state of the air.

The question of "Spontaneous generation" is intimately connected with our present subject. On this point a kind of polar antagonism has long existed between different classes of investigators. Van Helmont gave a receipt for the manufacture of mice, and it was for ages firmly believed that the maggots in putrefying flesh were spontaneously produced. Redi, a member of the famous Academy del Cimento, destroyed this notion by proving that it was only necessary to protect the meat by a covering of gauze to prevent the reputed generation. In 1745 two very able men, Needham and Spallanzani, took opposite sides in the discussion, the forming affirming and the latter denying the fact of spontaneous generation. At the beginning of our own century, we find on the affirmative side Lamarck, Oken, and J. Müller; and on the negative Schwann, Schultze, and Ehrenberg. The chief representatives of the two opposing parties in our day are Pouchet and Pasteur.

The method of inquiry pursued in this discourse will, I think, help to clear the field of discussion. The experimenters do not seem to have been by any means fully aware of the character of the atmosphere in which they worked; for if this had been the case, some of the experiments recorded would never have been made. For example, to make the destruction of atmospheric germs doubly sure, M. Pouchet, the distinguished supporter of the doctrine of spontaneous generation, burnt hydrogen in air and collected the water produced by the combustion. Even in this water he afterwards found organisms. But supposing he had seen, as you have, the manner in which the air is clouded with floating matter, would he have concluded that the deportment of water which had been permitted to trickle through such air could have the least influence in deciding this great question? I think not. Here is a quantity of water produced and collected exactly as M. Pouchet produced and collected his. This water is perfectly clear in the common light; but in the condensed electric beam it is seen to be laden with particles, so thick-strewn and minute, as to produce a continuous cone of light. In passing through the air the water loaded itself with this matter, and hence became charged with incipient life.*

Let me now draw your attention to an experiment of Pasteur, which I believe perplexes some of the readers and admirers of that excellent investigator. Pasteur prepared twenty-one flasks, each containing a decoction of yeast, filtered and clear. He boiled the decoction, so as to destroy whatever germs it might contain, and while the space above the liquid was filled with pure steam he sealed his flasks with a blow-pipe. He opened ten of them in the deep, damp caves of the Paris Observatory, and eleven of them in the courtyard of the establishment. Of the former, one only showed signs of life subsequently. In nine out of the ten flasks no organisms of any kind were developed. In all the others organisms speedily appeared.

Now here is an experiment conducted in Paris, which shows that the air of one locality can develop life when the air of another locality cannot. Let us see whether we cannot here in London justify and throw light upon this experiment. I place this large flask in the beam, and you see the luminous track crossing it from side to side. The flask is filled with the air of this room, charged with its germs and its dust, and hence capable of illumination. But here is another similar flask, which cuts a clear gap out of the beam. It is filled with unfiltered air, and still no trace of the beam is visible. Why? By pure accident I stumbled on this flask in our apparatus room, and on inquiry learnt that it had been a short time previously taken out of one of the cellars below stairs. Other flasks were in the same cellar. I had three of them brought up to me; they were optically empty. The still air had deposited its dust, germs and all, and was itself practically free from suspended matter. You can now understand the impotence of the air of the Paris caves. The observation illustrates at once the influence of the germs and the accuracy of Pasteur.

The air of the cellar was afterwards examined by the electric lamp. Though less heavily charged than the air outside, it was by no means free from particles. This was to be expected, because the door of the cellar was frequently opened. The flasks themselves were the true tranquil chambers; on their sides the dust had been deposited, and to them it firmly clung. To prove this several flasks about ten inches in diameter were filled with common air, corked, and laid upon a table in the laboratory. After two days' quiet they were optically empty.

Nor is it necessary even to cork the flasks; for with their mouths open the air within them is scarcely disturbed, certainly not displaced. Two days' rest on one of the laboratory tables suffices to deposit the organic dust and to render the open flasks optically empty.

I have had a chamber erected with a view to experiments on this subject. The lower half is of wood, its upper half being enclosed by four glazed window-frames. The chamber tapers to a truncated cone at the top. It measures in plan 3 ft. by 2 ft. 6 in., and its height is 5 ft. 10 in. On the 6th of February this chamber was closed, and every crevice that could admit dust or cause displacement of the air was carefully pasted over with paper. The electric beam at first revealed the floating dust within the chamber as it did in the air of the laboratory. The chamber was examined almost daily; a perceptible diminution of the floating matter being noticed on each occasion. At the end of a week the chamber was optically empty, exhibiting no trace of matter competent to scatter the light. But where the beam entered, and where it quitted the chamber, the white circles stamped upon the interior surfaces of the glass showed what had become of the dust. It clung to those surfaces, and from them instead of from the air, the light was scattered. If the electric beam were sent through the air of the Paris Caves, the cause of its impotence as a generator of life would, I venture to predict, be revealed.

It cannot, I think, be doubted that the method of observation here pursued is destined to furnish useful control and guidance in researches of this nature.

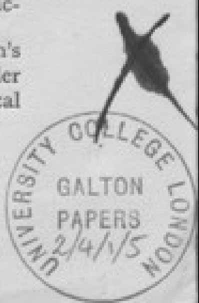
~~Royal Institution, March 14 J. TYNDALL.~~

* In this case a polished silver basin was soldered to one end of a wide brass tube; the tube was filled with ice, the hydrogen flame was permitted to play upon the basin, and the water of condensation was then collected. Dr. Child also objects to Pouchet's experiment.

HEREDITARY GENIUS

Hereditary Genius, an Inquiry into its Laws and Consequences. By Francis Galton, F.R.S., &c. (Macmillan & Co.)

IN this book Mr. Galton proposes to show that a man's natural abilities are derived by inheritance, under exactly the same limitations as are the form and physical



f. 2v

features of the whole organic world. Many who read it without the care and attention it requires and deserves, will admit that it is ingenious, but declare that the question is incapable of proof. Such a verdict will, however, by no means do justice to Mr. Galton's argument, which we shall endeavour to set forth as succinctly as possible. He first discusses the classification of men by "reputation," and from a study of biographical dictionaries and obituaries for certain years taken at wide intervals, arrives at the conclusion that not more than 250 men in each million, or 1 in 4,000, can be termed "eminent"; and he shows what a small proportion that is, by the well-known fact that there are never so many as 4,000 stars visible to the naked eye at once, and that we feel it to be an extraordinary distinction in a star to be the brightest in the sky. These "eminent" men are the lowest class he deals with. The more illustrious names are as one in a million or one in many millions; but unless a man is so much above the average that there is only one like him in every 4,000, he is not admitted into the ranks of the eminent men on whom Mr. Galton founds his deductions.

He next discusses the classification of men according to their natural gifts. He shows first, that each man has a certain defined limit to his mental as well as to his physical powers, and that this limit is in most cases soon discovered and reached. He next shows the enormous difference that exists between mediocre and high class men, by the evidence of examination papers; the senior wrangler at Cambridge, for example, often getting thirty times as many marks as the lowest wrangler, who must himself be a man very far above the average. Statistics show, that the number of imbeciles and idiots are about the same per thousand as the eminent men. He then applies Quetelet's "law of deviation from an average" (which will be new to many of his readers), and deduces from it, that if men are divided into sixteen equal grades of ability, eight above and eight below the average, the six mediocre classes will comprise nineteen-twentieths of the whole; while it will be only the sixth, seventh, and eighth above the average who will rank as eminent and illustrious men, and form about one in four thousand of the adult male population.

The next chapter relates to the important question on which, indeed, the possibility of any solution of the problem depends, of whether "reputation" is a fair test of "ability." The subject is very ably discussed, and it is, I think, proved, that notwithstanding all the counteracting influences which may repress genius on one side, or give undue advantage to mediocrity on the other, the amount of ability requisite to make a man truly "eminent" will, in the great majority of cases, make itself felt, and obtain a just appreciation. But if this be the case, the question of whether "hereditary genius" exists is settled. For if it does not, then, the proportion of mediocre to eminent men being 4,000 to 1, we ought to find that only 1 in 4,000 of the relations of eminent men are themselves eminent. Every case of two brothers, or of father and son, being equally talented, becomes an extraordinary coincidence; and the mass of evidence adduced by Mr. Galton in the body of his work, proves that there are more than a hundred times as many relations of eminent men who are themselves eminent, than the average would require.

Turning now to the concluding chapters of the book, we meet with some of the most startling and suggestive ideas to be found in any modern work. The law of deviation from an average enables us to determine the general intellectual status of any nation, if we are able to estimate the ability of its most eminent men, and know approximately the amount of the population. We have these data in the case of ancient Attica; and Mr. Galton arrives at the conclusion, that the Athenians of the age of Pericles were, on the lowest possible estimate, nearly two whole grades of ability higher than we are. With all our boasted civilisation, and the vast social and scientific problems with which we have to grapple; with all our world-wide interests, our noble literature, and accumulated wealth; the intellectual status of the most civilised modern nation is actually lower than it was more than two thousand years ago! Well may Mr. Galton maintain that it is most essential to the well-being of future generations that the average standard of ability of the present time should be raised. Not less striking is his exposition of the effects of prudential restraints on marriage, on the general character of a nation. If one class of people, as a rule, marry early, and another class marry late in life, the former have a double advantage, both in having on the average larger families, and in producing more generations in each century. But, by the supposition, it is the imprudent who gain this advantage over the prudent; and Mr. Galton therefore denounces the doctrine of Malthus, that marriage should be delayed till a family can be supported, unless the rule could be imposed on all alike. I hardly think that this argument is sound, and I doubt if the imprudent who make early marriages do, in the long run, increase more rapidly than the prudent who marry late. Increase of population depends less upon the number of children born, than on those which reach manhood; and I believe that the prudent man who has acquired some wealth and wisdom before he marries, will give to the world more healthy men and women, than the ignorant and imprudent youth, who marries a girl as ignorant and imprudent as himself. It is also to be remembered that the men who marry late often marry young wives, and have as good a chance of large families as the imprudent.

Mr. Galton traces the long-continued darkness of the Middle Ages, and our present low intellectual and moral status, to the practice of celibacy and to religious persecution. Whenever men and women were possessed of gentle natures, that fitted them for deeds of charity, for literature, or for art, the social condition of the times was such that they had no refuge but in the bosom of the Church; and the Church exacted celibacy. Those gentle natures left no offspring; and thus was the race of our forefathers morally deteriorated. The Church acted as if she had aimed at selecting the rudest portion of the community for the parents of future generations; and the rules as to fellowships at our Universities are a relic of this barbarous custom, being bribes to men of exceptional ability not to marry. Religious persecution acted in the same way. The most fearless, truth-seeking, and intelligent were year by year incarcerated in dungeons or burned at the stake; so that, by this twofold selection, human nature was brutalised and demoralised, and we still feel its hateful effects in the long-continued antagonism to the essential requirements of an advancing civilisation. These concluding chapters stamp Mr. Galton as an original thinker, as well as a forcible and eloquent writer; and his book will take rank as an important and valuable addition to the science of human nature.

ALFRED R. WALLACE

the drawing-room. Jack was out, and Jenny had gone with him for a saunter in the green lanes—as she had gone with me—an age ago.

'Ned,' said my mother, 'I want to have a talk with you. If you are not too much tired, come out in the garden.'

So we went, and sat down in a quiet, shady arbour, beneath the trees.

'Did not my boy want to make Jenny his wife?' she said, while I was listlessly waiting to know why she had brought me there.

'Yes, mother,' I answered. 'I asked her, and I mean to ask her again.'

'It's too late, Ned,' said my mother.

'Too late! What do you mean, mother?' I asked, as a strong thrill of fear, half-conscious of danger, passed through me, body and mind.

She did not speak at once; but presently she said: 'Jenny is a good girl, Ned—however you might be mistaken in her, you would think that, my boy.'

'Good!—why, mother, there is no goodness I think too much for her. She is all truth and goodness; and if I wait a dozen years, I'll try to win her yet.'

'Yes, yes!' said my mother, with a touch of impatience in her voice; 'you don't think more of her than I do. But did it never seem to you that she loved some one more than you?'

The recollection of the evening at Kilburn came back to me, and I answered doubtfully: 'Yes, she told me so—when I asked her if—if she could love me.'

'She told you honestly—plainly, Ned?'

'O yes,' said I, gaining courage as my remembrance grew clearer—'yes, she told me. But, mother, I have hopes of overcoming all that. Whoever it was that she loved, he does not come to claim her; and she can't go on for ever dreaming of a love—if love it be, or aught more than a girlish fancy—when the man she has wasted half her heart upon does not care to ask for her. She cannot be insensible to my devotion to her; and I'm not too proud, mother, to take her with such affection as she can give me. I love her with all my soul; and I shall take courage, and ask again.'

'Poor Ned!' said my mother.

There was a depth of compassion in her voice that startled me; and when I looked at her, my heart took alarm from the expression of her gentle face.

'Why so poor, mother?' I asked her, trying to disguise my fears as I spoke. 'Don't fear but I shall succeed by-and-by. I can afford to be patient, and I shall persevere.'

'O Ned, Ned! did it never occur to you who it was that won your cousin Jenny's heart?'

'No, indeed,' I cried, excited at length by a sense of the loss I might have sustained—'no, indeed—I wish it had. He's some mean cur, who wins girls' hearts to break them, and to spoil the chance of honest men. I would that I could only'——

'Don't speak so, Ned,' said my mother quietly. 'It's your brother Jack.'

The words failed to convey their meaning to my mind. I thought my mother had broken off suddenly from the subject of our conversation.

'What's my brother Jack?' I asked her petulantly.

'Why, Ned, my boy, your brother Jack won little Jenny's heart years ago, when you were all children together. I do not believe he knew how much he had won, or he would never have been false to her. He went away to India; and she, left here to think of him, loved him the more, in that he sent her not a single tender word all the time when her poor soul was yearning for him. Then he fell in love with another girl, and married her; and brave little Jenny bore it well, but was sorrowful enough, poor dear, as I saw well; and I was angry with Jack, because I knew how true a heart he had thrown so ruthlessly away.'

'But, mother,' said I, as all the truth of this began to dawn upon me, 'what does this matter now? Jack didn't love her, and he married another woman; and if what you tell me is true, she is free to be wooed and won by a more faithful heart.'

'Ah, Ned, my child,' said my mother tenderly, putting her hand on mine as she spoke, with a sad, sympathising tone in her voice, 'why have you shut your eyes to all that concerned your happiness? Did not Jack come home in sorrow, and without a wife, and before poor Jenny had had time to forget her love for him? And how could she fail to shew him, in his trouble, how much she cared for him? And how was he to be blind then to her love, or to keep down his old regard for her, as it grew up the stronger out of the ashes of his lost joy?'

I began to see it at last, and a wild sense of injury and wrong was growing up within me. She went on:

'Why, Ned, my dear, Jack has asked her to marry him and go back with him to India; and she has consented; and it will be all over in a month from now.'

Simple words enough, were they not? I ought to have been glad—glad that Cousin Jenny's love had found response at last, and glad that Brother Jack had come by some consolation for his trouble, and would not go back desolate to the far East. No doubt; but I was not glad. I was stricken, wounded cruelly, numbed with the weight of my new grief. I got up and walked away; feeling as Esau may have done when Jacob had cheated him out of his birthright—almost as Cain must have felt when Abel's offering was accepted by the Almighty, and his was rejected. What had I done, that my love should be trampled under foot? Why was Jack, who had had his joys, and won his bride, and known himself loved, to be rewarded for his sudden passing pain by the gift of that which I had spent my life in trying to win? These were the thoughts that troubled me, bewildered me, maddened me, and drove me out into the night, to wander far, alone, along the country roads.

The struggle was long, and keen, and terrible; but at length my better self prevailed. I was broken-hearted; but why kick against the pricks? The hope of my life was over; but should I therefore cast a chilling shadow on Jenny's joy? The best fortune that could fall to man had passed away from me; but need I, knowing this, be churlish, and refuse to be joyful in my brother's perfect happiness? With these reflections, I turned and went home. Jack was sitting by the study-fire, and his smile was glad and full. I stifled my selfishness, and congratulated him; and then I sat for hours and listened to the outpourings of his delight in the possession of that which should

have been mine. Jack—light-hearted, impulsive, impressionable child of the sunlight—never penetrated the gloom, the chill reserve, from which I could not, in spite of myself, escape. He was in an ecstasy. 'No doubt,' I thought bitterly, 'she was dreaming of the fulfilment of her hope and the return of her love. Well,' I said, 'so be it—I'll not be the spectre at the banquet: if you are happy, I'll seem happy too.'

'It will be all over in a month from now,' my mother had said truly. Of course, for Jack's leave was up, and he must be going back to his post. We might never see him again. Ten years he was away before; and what might not the next ten years bring with them?—for my mother, whose hair was white already with the gathering bloom of age?—for me, the elder brother, going onward to the graver scenes of life, without those sweet domestic ties that smooth the way so much for happier men?—for Jenny, passing away from her youth to her matronhood, and going to brave new climes for her love's sake?—and for Jack himself, entering on a new lease of joys and good fortune?

We had enough to think of—I, for one, had more than enough—during those few fleeting days. Shall I ever forget how lovingly Cousin Jenny tried to soften the grief I was too proud to confess—the grief that was too true and strong to be concealed from her keen sight?—how she strove, by a thousand little acts and words, to tell me how she would have loved me, but that her heart had been captive to another before I sought to win it for myself? There was little time or opportunity to think of such things then.

Very soon, three weeks had gone, and the wedding-morning came. They were to be married at St John's. Jack and I had moved to lodgings some days before; and Jenny and mother had had the house all to themselves for the last preparations. I rose early, fevered with the excitement of the crowding events and conflicting emotions through which I had passed, and arrayed myself in the garments in which I was to figure as Jack's 'best man.' There was a patient whom I must visit before the ceremony; and Jack was still in his room when I went out of the house. 'Half-past ten at the church door, Jack—prompt; now, don't forget!' I shouted from the foot of the staircase.

'All right! I'll be there,' said Jack.

I went and saw my patient; and at twenty minutes after ten I was ready in the porch. The minutes passed; and as the clock struck the half-hour I became uneasy, for Jack had not arrived. Five minutes, ten, fifteen, and yet he did not come. A carriage drove up; and I had to help out the bride and my mother.

Where was Jack? There was no sign of him. I rushed off as hard as I could go, hoping to meet him. The road was straight, and I could not miss him; but I reached the lodgings without a sight of the truant. 'Where on earth is my brother?' I cried to the landlady as I entered.

'He's up-stairs, in the sitting-room, and there's a lady with him,' was the answer.

'A lady! What lady?'

'Unpossible for me to say, sir,' said the landlady, with a disdainful and significant toss of the head.

I rushed up-stairs, and, waiting for no thought of ceremony, entered the room. There sat Jack, with his head bowed down upon his arms on the table; and kneeling at his feet was a woman—a strangely beautiful, pale-faced woman—in tears. I halted, but only for a moment, for I had no clue to this strange scene. 'Come, Jack,' I cried—'come along, my boy. They're waiting for you—WAITING IN THE CHURCH.'

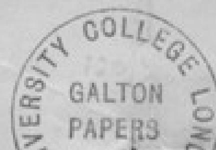
Jack lifted his face, and looked at me with an awful smile—a smile of agony, but not of joy, and he said, putting his hand softly on the woman's brow: 'Ned, this is my wife—come back to me from the grave.'

HEREDITARY TALENT.

WHOEVER likes 'a book with a purpose,' will welcome Mr Galton's work on *Hereditary Genius*,* since what he proposes to shew is no less than 'that a man's natural abilities are derived by inheritance under exactly the same limitations as are the form and physical features of the whole organic world; and consequently, as it is easy, notwithstanding these limitations, to obtain by careful selection a permanent breed of dogs or horses gifted with peculiar powers of running, or of doing anything else, so it would be quite practicable to produce a highly gifted race of men by judicious marriages during several consecutive generations.' Instead, therefore, of 'marriages of affection,' or 'convenience,' or of marriages being 'made in heaven,' they ought to be arranged by some competent tribunal, who shall decide the case upon its merits: whether Corydon is appropriate to Chloe, and *vice versâ*, and whether their issue is likely to be such as to advantage the general community. Under this happy and philosophic system, we shall no more hear of a lady 'throwing herself away' upon an unworthy object. *Locksley Hall* will have no further interest save as an example of what used to happen in an age of unreason; clever men will no more suffer under the proverbial stigma of 'always marrying stupid women;' and when we give a dinner-party, we shall no more regret that the usages of society prevent our inviting a gentleman's better-half without himself. Imagine foolish Charles's indignation with the philosophic parent of his Belinda at being refused leave to court her, upon the ground that his phrenological development is unsuitable! Imagine Belinda's regret that she was ever cursed with brains! But, on the other hand, what a magnificent ambition would that now contemptible desire 'to found a family' become! It will be no longer a vulgar wish to perpetuate the name of Robinson, but to bequeath to a grateful country in perpetuity the wit, the humour, the administrative talents, or the power of multiplying four figures by four figures in one's head, which is now the attribute of Master Jack Robinson only, and may be lost for ever by a mésalliance with a dull heiress!

Why Mr Galton, who, throughout this most interesting volume, is so careful to use the most precise and exact terms to express his meaning, should have selected the word Genius, for what is,

* *Hereditary Genius.* By Francis Galton. Macmillan.


UNIVERSITY COLLEGE LONDON GALTON PAPERS

by his own shewing, mere Talent, we cannot conjecture. Among the myriads of instances which he adduces to corroborate his view of this matter of hereditary descent, there are not half-a-dozen that apply to what is commonly understood by the term genius, and unless we substitute talent for that word, his whole argument, as it seems to us, is well nigh objectless. However, he leaves us in no doubt of what he is really driving at; and even *that*—if there was nothing else in the volume worthy of commendation, and there is very much—is a most satisfactory and unusual feature in a work that is calculated to regenerate the world. His general plan is to shew that, in the great majority of cases, men of high ability have eminent kinsfolk, and for this purpose he discusses the relationships of a vast number of illustrious intellectual persons—judges, statesmen, commanders, men of literature, poets, painters, and so forth, with a supplementary chapter, by way of comparison, with the hereditary transmission of physical gifts on oarsmen and wrestlers. It is not our intention to go into these tables of affinity, on which, however, it is plain that he has spent enormous pains, and the most conscientious diligence. We will grant at once, what we should never have been disposed to deny, that many eminent men—and even the majority of them—may reckon among their forefathers or descendants other fairly eminent personages, both male and female. But it is also to be remarked, that unless for Mr Galton's curiosity and research in this matter, the world at large would not have been conscious in most cases of the 'eminence' of the forefathers in question; some, indeed, rise just sufficiently ahead of their contemporaries to catch the reflex of their descendants' glory, but there is seldom anything of individual mark about them; no more particular talent than would perhaps be found among the progenitors of any human being whose biography it was proposed to write with insufficient material, and whose family genealogy had consequently to be laid under contribution. It is a favourite satirical observation to remark that a man never had a grandfather, and we allow it its full force and elegance as a depreciatory observation; but, as a matter of fact, every one of us have had relatives of that particular kind, and also great ones, and great-great ones. The mere *discovery* of them is the result of an inquiry that commonly costs a good deal of money, which is not at everybody's command, and to the lack of that vulgar commodity (in combination with the vulgar idea that they are timber of no great intrinsic value) is alone to be ascribed the fact that we have not all our family trees. The last animate bundle of rags left at the workhouse door—the pauper baby abandoned yesterday in the streets—is not only our own flesh and blood in the sense used by our present premier, but somewhere or other—perhaps very high up indeed—links with the noblest families on earth, and certainly has in its veins, if not 'the blood of all the Howards,' the blood of those who lived and died a thousand years before a Howard was heard of. So far from being impressed with Mr Galton's conclusions in this respect, it seems to us that any man—whose race has been tolerably prolific—might well think himself aggrieved, if ranging from his great-grandfather to his great-grandson, and searching about among the many relatives included in that vast area, he did *not* find a man sufficiently eminent to be instanced by our author (had he occasion to use him) as a proof of hereditary descent.

Again, what seems to us exceedingly to weigh against Mr Galton's view of the matter, is that among the descendants of his (really) Eminent Man, we not only find personages of greater eminence than among his forefathers, but many more of them; which it is surely not begging the question to suggest might be owing to the said eminent man's having stretched out to them a helping hand. So intelligent a writer as Mr Galton has, of course, not lost sight of this objection to his theory altogether; but he has, in our judgment, made much too light of it. Nay, with a boldness that treads close upon audacity, he has instanced the judges of England as the strongest proof of what he would fain have us believe. The judges of England, says he, as I shew you by my tables, have had a most extraordinary number of eminent and illustrious relatives: but what he does shew us by his tables (and what we quite expected to see) is, that the judges of England have had a most extraordinary number of relatives also judges, or otherwise distinguished in the law. 'The law,' said Sydney Smith, 'is open to rich and poor alike—like the *London Tavern*.' And the profession of the law is certainly open to everybody; but as for mere talent making its way therein against interest in a general way, no error can be more ludicrous; a man with a musket manufactured upon the old models, might as well enter for a shooting-match against another with the Chassepot, as one armed only with good brains against the son of a judge. Of course, a few men have enjoyed such natural advantages as to cause them to triumph over even these odds; the examples Mr Galton instances of such are just sufficiently numerous to prove the rule which he would fain ignore; but their descendants had no such obstacles to contend against, and it is no wonder that we find *them* in great legal situations. Let us take Mr Galton's first page of judges in illustration of our argument. The names are Atkyns (four distinct families), Bathurst, Bedingfield, Best, and Bickersteth. Among these we find no less than nine Chief-justices, fourteen Barons of the Exchequer, three other judges, one Master of the Rolls, and three Readers in Lincoln's Inn. And against these thirty, just three other descendants 'eminent'—and not very much so, neither—in other callings than that of the law: General Sir William Draper, 'the well-known antagonist of Junius;' 'a famous physician;' and Earl Bathurst, 'an accomplished wit.' The six-and-twenty Atkynses were all lawyers; and of them it may certainly be said that they possessed a most extraordinary hereditary genius—*for getting on at the bar.* It is curious to see how recklessly even a wise man will ride when once he has mounted his hobby-horse. If Mr Galton would prove his case, there is nothing for him here but to push his principles even further, and to maintain that not only is talent transmitted, but always the same particular kind of talent—such as legal acumen; though even that ground would only be tenable on the supposition that nepotism and interest were infinitely less concerned in the affair than they

f. 4v

really are. It was no wonder (when once he had surmounted these little objections to his theory in his own mind, and was resolved to take the field) that our author made his strong point of the judges, for the examples of so-called 'hereditary' talent are far more numerous among them than elsewhere. Among the poets, for example, we do not find genius—true genius here—by any means so hereditary; it does not seem to be so catching on Parnassus as in Lincoln's Inn. It is found difficult to fit them with eminent relations, and the 'eminence' is of a more doubtful character, even when found and made a note of. There is nothing, for instance, adduced in evidence of the illustrious character of Lord Byron's father, except that he was 'imprudent and vicious;' or of that of his mother, beyond the fact that she was 'proud, passionate, and half-mad;' nor is it to be held satisfactory proof of the transmission of hereditary genius that Heinrich Heine's first cousin 'succeeded his father in the management of his affairs.' The conclusion, in fact, which is forced upon us, notwithstanding all our author's eloquence and ingenuity, is this: that where the species of eminence in a man is of a practical sort, and such as involves power and patronage, we *do* find among his descendants and relatives many examples of a certain eminence, even of an eminence as great as his own (though reached with far less of difficulty); whereas where the sort of eminence is not of a material kind, and does not command any such advantages, it is not transmitted so often as to excite the least surprise. The nearer it approaches to what is called Genius (and taking into account, of course, the rarity of the gift, in comparison with that of mere talent), the less it seems to possess of a hereditary character; though, even here, we grant that some similar traits are recognisable in the descendants, and especially in the immediate ones, of an exceptionally great man.

If we turn to the table *Literary Men* in Mr Galton's book, for instance, we find that the talent for writing books runs much in a family—'runs in the blood,' as says the proverb, and as our author maintains, whereas it does nothing of the kind. The exceptional calling of literature is as capable as another of being pursued—after a fashion—by anybody. When papa lives by his pen, it is only natural that the children should endeavour to use it for their livelihood. They catch 'the trick' of authorship; they may even learn from him to address the public in a taking way, and so they become in some sort authors themselves, even of sufficient repute to appear in a genealogical table where their presence is most earnestly desired by a gentleman with a theory. If they really have any literary talent, it would be doubtless fostered and encouraged under such circumstances; but their eminent papa could never succeed in hauling them up to his own pedestal—as he could do if he were on the bench of judges—or bid them succeed him there, examples to all posterity of Hereditary Genius.*

Though we differ altogether from Mr Galton's conclusions, the facts which he has collected with such careful zeal are very interesting, and the manner he has gone to work to procure them most ingenious. He takes a book called *Men of the Time*, which catalogues, biographically, all really eminent personages in all callings. 'On looking over the book, I am surprised to find how large a proportion of the "Men of the Time" are past middle age. It appears that in the cases of high (but by no means in that of the highest) merit, a man must outlive the age of fifty to be sure of being widely appreciated. It takes time for an able man, born in the humbler ranks of life, to emerge from them, and to take his natural position. It would not, therefore, be just to compare the numbers of Englishmen in the book with that of the whole adult male population of the British Isles; but it is necessary to confine our examination to those of the celebrities who are past fifty years of age, and to compare their number with that of the whole male population who are also above fifty years. I estimate, from examining a large part of the book, that there are about eight hundred and fifty of these men, and that five hundred of them are decidedly well known to persons familiar with literary and scientific society. Now, there are about two millions of adult males in the British Isles above fifty years of age; consequently, the total number of the "Men of the Time" are as four hundred and twenty-five to a million, and the more select part of them as two hundred and fifty to a million.' Another estimate gave much the same result. 'I took the obituary of the year 1868, published in the *Times* on January 1, 1869, and found in it about fifty names of the more select class. This was in one sense a broader, and in another a more rigorous selection than that which I have just described. It was broader, because I included the names of many whose abilities were high, but who died too young to have earned the wide reputation they deserved; and it was more rigorous, because I excluded old men who had earned distinction in years gone by, but had not shewn themselves capable in later times to come again to the front. On the first ground, it was necessary to lower the limit of the age of the population with whom they should be compared. Forty-five years of age seemed to me a fair limit, including, as it was supposed to do, a year or two of broken health preceding decease. Now, two hundred and ten thousand males die annually in the British Isles above the age of forty-five; therefore the ratio of the more select portion of the "Men of the Time," on these data, is as fifty to two hundred and ten thousand, or as two hundred and thirty-eight to a million. Thirdly, I consulted obituaries of many years back, when the population of these islands was much smaller, and they appeared to me to lead to similar conclusions—namely, that two hundred and fifty to a million is an ample estimate.'

And here follows a short but very striking

* In reference to literary men, Mr Galton contrasts the position of English and American authors, to illustrate his view that high ability is irrepressible. 'Culture is far more widely spread in America than with us, and the education of their middle and lower classes far more advanced; yet, for all that, she does not beat us in first-class literature, &c. The number of her first-class authors is more limited even than with us.' Just so; but the reasons for this lie in those very 'circumstances' the power of which to repress ability Mr Galton denies. There being no international copyright law, literature (save that of the newspaper press) is a profession few embrace, because, the works of English authors being procured for nothing, the publishers are naturally unwilling to pay money for native talent.

dissertation upon what is really represented by that number 'a million,' about which we talk so glibly, without in the least appreciating its excessive magnitude. 'It is well to have a standard: mine will be understood by many Londoners; it is as follows: One summer day I passed the afternoon in Bushey Park, to see the magnificent spectacle of its avenue of horse-chestnut trees, a mile long, in full flower. As the hours passed by, it occurred to me to try to count the number of spikes of flowers facing the drive on one side of the long avenue—I mean all the spikes that were visible in full sunshine on one side of the road. Accordingly, I fixed upon a tree of average bulk and flower, and drew imaginary lines—first halving the tree, then quartering, and so on, until I arrived at a subdivision that was not too large to allow of my counting the spikes of flowers it included. I did this with three different trees, and arrived at pretty much the same result: as well as I recollect, the three estimates were as nine, ten, and eleven. Then I counted the trees in the avenue, and, multiplying all together, I found the spikes to be just about one hundred thousand in number. Ever since then, whenever a million is mentioned, I recall the long perspective of the avenue of Bushey Park, with its stately chestnuts, clothed from top to bottom with spikes of flowers, bright in the sunshine, and I imagine a similarly continuous floral band of ten miles in length.'

Two hundred and fifty out of a million is one out of four thousand, and here again Mr Galton brings vividly before us how high is this standard of intellectual 'eminence' he has chosen. Four thousand is a very large number—difficult for persons to realise who are not accustomed to deal with great assemblages. 'On the most brilliant of starlight nights, there are never so many as four thousand stars visible to the naked eye at the same time; yet we feel it an extraordinary distinction to a star to be accounted as the brightest in the sky.' It is only with these brightest and most particular human stars with whom Mr Galton concerns himself in this volume. It is impossible to transfer his elaborate calculations to our pages, but he certainly seems to prove conclusively that 'eminently gifted men are raised as much above mediocrity as idiots are depressed below it: a fact that is calculated to considerably enlarge our ideas of the enormous differences of intellectual gifts between man and man.' Mr Galton has been privately furnished by a Cambridge examiner with the actual marks given to each candidate for mathematical honours in a certain year. The first, a senior wrangler, got 7634; the second, 4123; and the lowest man in the list only 237. 'Consequently, the senior wrangler who got more than thirty-two times as many as the lowest man, could grapple with problems more than thirty-two times as difficult; or, when dealing with subjects of the same difficulty, but intelligible to all, would comprehend them more rapidly in perhaps the square root of that proportion.' These marks, we are reminded, even do injustice to the best men, since a large portion of the examination-time is taken up by the mechanical labour of writing, so that their mental superiority is even greater. And when we consider that these honour-men are the flower of the undergraduate (mathematical) intellect, themselves the picked youth of the schools of England, the mental position of senior wrangler with respect to his ordinary fellow-creatures is (mathematically) towering indeed.

Macaulay was able to recall many pages of hundreds of volumes by various authors, which he had acquired by simply reading them over. An average man could not certainly carry in his memory one thirty-second—ay, or one-hundredth—part as much as Macaulay. This will be unpalatable news for the majority of the human race—that is, the mediocrity, an illustration of which class is thus pithily described. 'The meaning of the word mediocrity admits of little doubt. It defines the standard of intellectual power found in most provincial gatherings, because the attractions of a more stirring life in the metropolis and elsewhere are apt to draw away the other classes of men, and the silly and the imbecile do not take a part in the gatherings. Hence the residuum that forms the bulk of the general society of small provincial places is commonly very pure in its mediocrity.' Though this may not be displeasing to 'friends round St Paul's,' we doubt whether it would be a welcome remark to open conversation with down in the country.

If the mediocrities are likely to have the conceit taken out of them by Mr Galton, he has, on the other hand, a good word for the idiots. Thirty per cent. of idiots and imbeciles, he tells us, put under suitable instruction, have been taught to conform to social and moral law, and rendered capable of order, of good feeling, and of working like the *third* of an average man; while more than forty per cent. have become capable of the ordinary transactions of life under friendly control: of understanding moral and social abstractions, and of working like *two-thirds* of a man.

The science of numbers has rarely been put in a more striking and intelligible form than by Mr Galton; however dull and bald a subject may be, it is sure, thanks to his skilful treatment, to wear a tolerably prepossessing aspect; so that the volume will be found interesting even by those who are accustomed to shun philosophy as dry reading. With his conclusions, as we have said, we are wholly unable to agree. We should be very willing to do so if we could. What an admirable arrangement might our hereditary aristocracy become if, in the first place, we gave titles to really great men; and secondly, if their greatness were hereditary! Eminence is not recognised in that way at present, except in the case of lawyers and of a few military men; nine out of ten of our peerages are bestowed for party purposes upon party men; but we have Mr Mill's word for it that even when a man of great intelligence *is* ennobled, his issue in the second, if not in the first generation, are so far from inheriting his intellectual qualities, that they are almost invariably found among 'the stupid party.' Mr Galton defends the system of hereditary aristocracy—of course, supposing that the said aristocrats were really 'eminent'—on two grounds: first, that the future peer is reared in a home full of family traditions, that form his disposition; and secondly, that he is presumed to inherit the ability of the founder of the family. Unhappily, both these arguments are presumptions. At the same time, it is only fair to state that our author is very far from reverencing mere rank without what he conceives to be the guinea-stamp of near relationship to an eminent

f.5v

personage. 'I cannot think of any claim to respect put forward in modern days that is so entirely an imposture, as that made by a peer on the ground of descent, who has neither been nobly educated, nor has any eminent kinsman within three degrees.'

GWENDOLINE'S HARVEST.

CHAPTER XV.—DOWN GLENDALLACK.

At the same moment wherein Gwendoline became conscious that Piers Mostyn, and not Mr Blackett, was sitting beside her in the car, the machine was suddenly brought to a full stop, for the purpose of lighting the candles which, in the open air, would at once have been extinguished. Even when all were provided with these beacons, they did little more than make the rugged roof immediately above them visible, and cast a feeble glimmer upon the wet walls. When Miss Blackett turned round to ejaculate: 'Horrible; is it not, Alec?' she would not, perhaps, have discovered that Alexander had decided upon limiting his conquests to the earth's surface, and had left the guardianship of her friend to another; Piers, not knowing what line to take, remained silent, but Gwendoline replied promptly for him: 'Your brother is not here; he was afraid of catching cold, I suppose.'

'Oh, I see; one of the workmen has taken his place. Well, perhaps it's better so, my dear. You will be in safer hands, for Alec is quite unfitted for these sort of expeditions: I told him so when he proposed it.—O my goodness! Mr Kerr' (and she gave her neighbour a most genuine squeeze), 'if we ain't going lower still!'

Considering that they had only just entered the mine, this was not to be wondered at; but the fact was, as poor Miss Blackett subsequently observed, 'she had seemed to have passed a lifetime in the dreadful place already,' and could do nothing throughout the journey but pinch Mr Kerr, and say her prayers. Her attention and that of her companion being thus entirely absorbed, Piers and Gwendoline were left to converse almost as freely as if they had been alone, except for the brakesman and his assistant, who had other matters to engage their minds.

'How dare you come here, Piers?'

'Because I love you, dearest. Orpheus went down to a similar locality—to see his wife; and I have come here to see *you*. I really could not resist it, my own darling.'

Gwendoline did not withdraw her hand from his warm pressure—she could not deny herself so great a pleasure; but her tone had much resentment in it still, as she replied: 'It was a most dangerous and foolish thing to do, Piers. Does any one know of your being here?'

'Not a soul save the brakesman behind us, and he does not know who I am. I said I wished to go down the mine, and they gave me this dress, and bade me wait for the next car. If "Alec" (who's Alec?) had not got out, I should have come down the ladder, and taken my chance of seeing you. How beautiful you look with that star upon your forehead, like a goddess.'

'Do I? I cannot return the compliment: Miss Blackett took you for one of the workmen.'

'Bless her. So will everybody else, I hope. I wish I *was* a workman; that is, if you were also employed on the same level. I could travel to the centre of the earth like this, and enjoy it beyond everything.'

'Could you?' Gwendoline was pouting; but he missed that from the insufficient supply of light. 'Then you cannot be much devoted to scenery.'

'I see your face, darling, and that is the fairest scene to be beheld upon earth—or beneath it. Confound it! we are stopping again. These people will insist upon our going to look at something.'

Never was explorer of mine so easily satisfied as Piers Mostyn. He would have been content to have been lowered through scores of miles of mere tunnel, and then dragged up again. He wished to see nothing but the face beside him—to hear nothing but that voice, which was certainly growing less resentful, and even almost tender towards him. But Science is a severe schoolmistress, who has no patience with such ridiculous follies, and must be listened to whenever she speaks. The brakesman's assistant had had his orders to 'explain Glendallack' to the distinguished visitors of the day, and he conscientiously did it. It was like hearing a lecture at the Polytechnic. But never had those instructive walls contained so unheedful an audience. Miss Blackett was otherwise engaged, as we know, and could not listen. Mr Kerr had shares in the mine, and knew all about it. Gwendoline was staring straight before her, looking (if there had been light enough to see) haggard rather than bored: she almost wished that the rope would break, and the enigma of her life be solved in that fashion. Piers, beneath his silken moustache, was muttering curses in the Parisian tongue. The brakesman's assistant having premised that he was unaccustomed to speak in public, discoursed with a fluency that could only have been acquired by constant practice. He had himself a smattering of science, and had invented something—a pump, or a valve, or a coupling-chain—of which he had a model at home, and would be happy to shew it to the ladies and gentlemen when they got above ground.

'Ah, if ever we *do*,' sighed Miss Blackett. She was a thrifty soul, but she would have given ten golden guineas at that moment to have been in a position to behold the model referred to. Happy Alec! He was a coward, but not a fool; he was on *terra firma*, and not under it. How she hated Mr Kerr, who must have known where he was bringing her to! Heaven might forgive him, but she certainly did not make that special request in his favour. Why was it so frightfully hot, and what was that which was dropping on her head and shoulders from the roof? She interrupted the torrent of the lecturer's eloquence, to ask these two questions.

'Well, mum, as for the heat, that is said to arise from our propinquity to a very hot place indeed.'

'Great Heaven deliver us!' exclaimed Miss Blackett fervently.

'No, mum; it is not the place you are thinking on: I was referring to the Central Fire. The warm air we are breathing, however, although inconvenient to parties unaccustomed to it, is not hurtful. As for the iron drippings, they are quite harmless.'

'But what do they *come* from, man?' urged the poor lady.

UNIVERSITY COLLEGE LONDON
GALTON PAPERS

THE TIMES, FRIDAY, JANUARY 7, 1870.

HEREDITARY GENIUS.*

[illegible]

* *Hereditary Genius.* By Francis Galton, F.R.S., &c. London: Macmillan and Co., 1869.

JUDGES' CHAMBERS, Jan. 6.

CHARGE AGAINST A BANK MANAGER.

COURT OF BANKRUPTCY, Basinghall-street, Jan. 6.

POLICE.

LAW NOTICES.—(This Day, Friday, Jan. 7.)

Scotsman

UNIVERSITY COLLEGE LONDON
GALTON PAPERS

Literature.

HEREDITARY GENIUS: An Inquiry into its Laws and Consequences. By Francis Galton, F.R.S., &c. London: Macmillan & Co.

GALTON PAPERS

Daily News Dec 15/1869

THE D[illegible]

and will be put up and down by a spring hinge. When a cab is plying for hire the flag will be up; when it is engaged or is going off to change horses, the flag will be down. This flag will, however, not contain the full details now set forth on plates inside the cabs, and it is, therefore, proposed that tickets, like those used in Paris, containing all the necessary information be supplied by every driver to his passenger. The proprietors further propose that the annual inspection of the cabs, which hereafter is to be more rigid than at present, should take place in September, instead of November or December. One difficulty remains. The Act, for the second time, enacts that every cab shall carry a lamp; and for the second time the proprietors object. They say, and not without reason, that if cabs are compelled to carry lamps, every vehicle should do so; that other vehicles driven by less experienced drivers are more dangerous in the dark than cabs, and that to apply a rule of public safety to them which is not applied where it is more wanted, is unfair. The lamp, therefore, still remains among the unsolved difficulties of cab regulation.

Apart from this great lamp question, there seems to be no reason why most of these suggestions should not be adopted. The proprietors are wise in resolving to adopt, for the present cabs, the present tariff. The time when that tariff was unprofitable has long passed; and some special relief has been given them by the legislation of last session. In the disturbance of London traffic caused by the introduction of railways the cabs suffered, but they have accommodated themselves to the new condition of things, and no longer feel railway competition. The repeal of duties has reduced the annual taxation leviable on each cab from 25l. 5s. to less than 2l. a year; while the repeal of the shilling duty on corn has been followed, not perhaps altogether as effect follows cause, by a reduction of some ten shillings a quarter on the cost of the corn consumed by their horses. They can therefore afford to run at the present fares, and it is not likely that any attempt will be made to raise them. At the same time, it is possible that after the 1st of February broughams and open carriages plying at higher fares may appear on the cab stands. The experiment will certainly be made, and if the owners of such carriages agree upon something like that uniformity of fare on which the cab proprietors have agreed for the ordinary cab, their experiment will succeed. What is to be desired is, that there should be an uniform fare for each class of vehicle; that just as every cab is sixpence a mile, every brougham should be ninepence or a shilling, every open carriage a shilling or eighteenpence, and so forth. The greatest advantage of free trade in cabs will, however, be in the improvement in the ordinary cabs which may be looked for under the new regulations. The trade will fix their own fares, and the custom must allow the public to be a little more particular as to the vehicles to which licenses are given. Probably, too, in return for some concessions on the part of the public, and especially in return for the remission of nearly fifteen pounds a year taxation on every cab, the proprietors will see their way to comply with the requirement of Parliament, and contribute to the brilliancy of our streets at night by consenting to affix a lamp to each cab. It will hardly be a hardship if the HOME SECRETARY should insist on this.

IT is sometimes said that figures can be made to prove anything, and there are men of considerable parts who have not hesitated to avow their contempt for statistics. This contempt is wholly unreasonable. Figures are not false, although the inferences we found upon them may be, and the only danger to the student is lest he should misuse their aid to leap at conclusions without sufficient data. In Mr. GALTON's remarkable work on "Hereditary "Genius" he has produced a number of statements which would be well-nigh incredible were it not for the careful accumulation of statistics by which he endeavours to sustain them. Some of his conclusions, whether correct or not, are, to say the least, curious and suggestive. We all know how certain physical advantages and defects are transmitted from father to son, how they overleap a generation sometimes, to reappear with additional intensity, and how even the moral nature of man is to some extent subject to hereditary law. Mr. GALTON undertakes to show, and to a large extent undoubtedly succeeds in showing, that genius is equally transmissible, and that ability goes by descent. Of course to such a rule there must be notable exceptions. Men of vast powers occasionally begat fools; the sons of poets and statesmen are sometimes deficient in ordinary intelligence; but the reverse holds good in a vast proportion of instances. Moreover, it often happens—and this is notably the case with musicians—that not only is high intellectual power transmitted from father to son, but that a special gift is handed down through several generations. This is not the case with poets, the greatest of whom have neither received the gift from their parents nor transmitted it to their offspring. Talent, it has been said, may be hereditary, while genius is solitary and unfertile; but the distinction is of little worth, since it is often impossible to detect the faint border line which divides the two. Who can doubt, for instance, that in the case of our most illustrious lawyers their genius has drawn them in the direction of the law as strongly as the artist is impelled by his genius to use the pencil or the brush? Yet it is remarkable how often legal power is handed down. "Out of 286 judges," says Mr. GALTON, "more than one in every nine "of them has been either father, son, or brother "to another judge, and the other high legal "relationships have been even more numerous." Mr. GALTON considers that statesmen as a whole are far more eminently gifted than judges, and that both are surpassed in genius by naval and military commanders. It often happens that the son of a great statesman is equal, if not superior to his father, but to judge from Mr. GALTON's tables, the same cannot be said of commanders. In England, at least, our greatest commanders have been either childless, like CLIVE and NELSON, or, like CROMWELL and WELLINGTON, have not transmitted their "Heaven-born" generalship. There are some signal instances of non-transmission also amongst our chief men of science and letters. BARROW, Sir ISAAC NEWTON, HUME, POPE, SWIFT, COWPER, THOMSON, and OLIVER GOLDSMITH were bachelors; SHAKESPEARE had one son who died when a boy; SPENSER had three who died quite undistinguished. Neither MILTON nor ADDISON ever had a son. Dr. JOHNSON was childless. THOMAS CAMPBELL's only son was of weak intellect, and the sons of Sir WALTER SCOTT bore no intellectual likeness to their illustrious sire.

Mr. GALTON has calculated that in Great Britain one person in each 4,000 is eminent, one in 1,000,000 illustrious; so that fame, whatever it be worth, is of extremely difficult attainment. The few men who climb the steep "where "Fame's proud temple shines afar" do so at the loss of many an honest pleasure, and at the cost of many a heartache. Genius, however, is not repressed by such considerations. It must have its way, however arduous that way may be; and as a proof that the hindrances of English social life are "not effectual in repressing high ability, the "number of eminent men in England is as great "as in other countries where fewer hindrances "exist."

We read of a time when there were giants upon the earth, and Mr. GALTON considers it would be possible to produce a race of intellectual giants by judicious marriages during several consecutive generations. No doubt it would be practicable, if the first consideration of marriageable people were the ultimate improvement of mankind. Then fools would give one proof at least of wisdom in refusing to propagate folly, and the feeble and sickly would take a vow of celibacy from sheer regard to posterity. Unfortunately, young men will fall in love, and girls will marry them without considering the effect of the union upon the race. What may be done by a few earnest enthusiasts cannot be done by ordinary mortals, and we agree with Dr. ELAM, that it is highly improbable marriages will ever be formed on scientific principles. Many strong assertions have been made of late with reference to the deterioration of some European races, and our own in particular. It has even been said that one of the causes of degeneracy may be traced to the advancement of medical science. Sickly men and women, who would inevitably have died in a rougher age, and under less skilful treatment, can be kept alive now, and marry and hand down their ailments. On the other hand, against this seeming evil—for that it is a real one none who knows the value of life will venture to assert—we may set off our wider acquaintance with sanitary laws and other advantages, the products of civilisation which were not enjoyed by our forefathers.

One of the most remarkable assertions of Mr. GALTON relates to the celibacy of the clergy, which he says was a considerable cause of the darkness of the dark ages. The men and women of gentlest natures and largest culture had no refuge elsewhere than in the bosom of the Church. The Church exacted celibacy. "The consequence was that "these gentle natures had no continuance, and "thus the Church brutalised the breed of our fore-"fathers." There may be good ground for this statement, but as Mr. GALTON observes elsewhere that there is a correlation between an unusually devout disposition and a weak constitution—an amazing assertion, truly—he seems to contradict himself. No doubt many men who were not devout sought the Romish Church as a place of refuge; but it would be uncharitable to doubt that a large proportion entered it from devotional feeling, and those who did not might have possessed "gentle natures," but probably forsook the world because they were physically incapable of taking their part in it. Such men, had they married, might have increased the refinement of the race, but were not likely to have added to its bodily or mental vigour.

Mr. GALTON's opinion of the monks of the Middle Ages is apparently more favourable than his opinion of modern divines, who, he says, are "on the whole an ailing body of men," and have wretched constitutions. Yet so strong is his belief in the muscular vigour of men of brain, that he undertakes to pick out of the group of divines mentioned in his pages, as out of any other group, "an 'eleven' who should compete in any "physical feats whatever against similar selec-"tions from groups of twice or thrice their num-"bers, taken at haphazard from equally well-fed "classes." Mr. GALTON's challenge shows that he is utterly opposed to the once popular delusion that men who follow intellectual pursuits are generally unhealthy. Certain it is that the men who within living memory have been most famous in the departments of learning, literature, and science, have, with few exceptions, been remarkable also for muscular strength and sound physical development.

A WEEKLY contemporary, remarking lately upon the disgraceful state of the parochial representation of St. Pancras, urged that the PRESIDENT of the POOR LAW BOARD should be empowered by law to dissolve a Board of Guardians whenever its conduct was such as to render it impossible to believe that it continued to represent the sentiments of its constituents. If there was any force in the argument before—and we think there was much—it is immeasurably increased by the proceedings at the meeting of St. Pancras Guardians on Monday last. The leading actors in that memorable scene are not fit to be entrusted with the management of a dog kennel, much less with the interests of the poor. On that day the mob invaded the meeting, and interrupted and overbore its deliberations with hooting and hissing. That, however, was a comparatively small matter. The serious fact disclosed was that the St. Pancras rough had got on the very Board itself; the ratepayers, by some accident we may charitably presume, have elected him, and his position cannot be questioned. Once there, he of course obeys the instincts of his nature, and does his best to make it impossible for any decent man to remain at the Board. This may prove a serious thing for the parish, if its inhabitants still value the rights of self-government, which some persons, judging from the history of the last twelve months, have doubted. Men like Mr. WATKINS and Mr. NORTH are degrading local self-government, and from making it ludicrous go on to render it impossible, while the pretence of maintaining it is a costly nuisance. It would be a crime for the Government of any civilised country to leave the fate of the poor to the mercy of such guardians.

THE Nonconformists who complain to us that the Dissenters' Marriage Act places their Ministers in a position of inferiority to the Established Clergy with respect to the solemnisation of matrimony, have a previous question to settle among themselves. What do they want? Do those who object to the presence of the Registrar at marriages in Chapels desire that their Ministers themselves should be constituted Registrars responsible to the State for the proper performance of their duty? Some of them may, but others, we believe, would vehemently oppose such an arrangement. The only interest the State has in the matter is to secure a valid and permanent record of the contract, which is a matter of the utmost importance to society. This done, the religious ceremonies may be left to the consciences and preferences of the parties married. The legal contract must, however, necessarily be certified by a public officer, and we doubt whether the Dissenters really want their Ministers to be constituted such officers. It is a matter, however, which is virtually in their own hands, and their wishes on such a point could not fail to command the respect of the Government and the Legislature.

SIR R. MURCHISON, in referring to Dr. Livingstone's letter at the meeting of the Royal Geographical Society on Monday night, said we must be prepared for the possible but not probable contingency that the waters of the Lake Tanganyika should be found not to flow northwards into the Lake Albert Nyanza, but to be deflected to the west. In that case, if Dr. Livingstone should be adequately supplied with means and provisions, he would doubtless follow those waters, and thus being led on, perhaps to the Congo, we must once more be subjected to a long and anxious period of suspense.

TESTIMONIAL TO THE REV. T. BINNEY.—Last evening a large number of the old and present members of the church and congregation worshipping at the King's Weigh House Chapel, Fish-street-hill, assembled at the Cannon-street Hotel, for the purpose of presenting a testimonial to the Rev. T. Binney on his retirement, after a pastorate of over forty years. Mr. Samuel Morley, M.P., presided, and was supported by Mr. R. [illegible], M.P., the Revs. Dr. Raleigh, Dr. [illegible], H. Allon, [illegible] White, J. H. Wilson, Dr. Stoughton, and many other ministers and gentlemen. A cheque for 1,[illegible] was presented, and suitably acknowledged by Mr. Binney.

THE EAST LONDON CHILDREN'S HOSPITAL AT RATCLIFF-CROSS.—A donation of [illegible], in aid of the funds of the above charity was received on the 13th inst. from H. G., per the Alliance Bank.

1869.

COMMERCIAL AND MARKETS.

AUCTION MART.—SALES THIS DAY.

which the world has had more than enough, and we wish devoutly that *Guy Vernon* was to be the last of the whole bad and foolish breed.

HEREDITARY GENIUS.*

MR. FRANCIS GALTON has bestowed immense pains upon the empirical proof of a thesis which from its intrinsic nature can never be proved empirically. In the philosophy of the intellect, as in the philosophy of mechanics, there are problems which are capable at the best of but a partial and approximate solution. The elements of analysis and proof are too multiform and variable, and the only available method of investigation is too complex and subtle, for any result of a decisive and satisfactory kind. We should as soon expect to see a complete and general solution of the famous problem of three bodies, as a full and philosophical determination of the law by which man's intellectual growth is governed and defined. Whether we regard the origin and development of reason in the general or in the particular, in the race or in the individual, the like complexity or variety of conditions in the very purview of the problem seems to baffle us in the earliest attempt to grasp them. To hold them together long and firmly enough to bind them into one logical formula is hopelessly beyond us. The difficulty is one which must in the nature of things attend upon every effort of science to effect a real meeting-point between the opposite methods of empirical and *à priori* proof, or to obtain a common measure for any pair of incommensurables. The general problem of heredity, or the transmission of mental qualities in man, presents two distinct poles to the contemplation of science. It may be approached from the side of physiology, or the study of the vital and psychical laws inherent in the individual organism. It may also be approached from the standing point of observation, or the experimental knowledge of mankind as seen acting singly or in association. For the problem to be grasped and solved in its entirety it is necessary for us to come to a correlation or harmony of both these processes of investigation. The exact point must be shown at which the physiological law meets with and blends into the results obtained by the widest and most thorough survey of mankind as actual agents. To combine and correlate these processes lies, we need scarcely say, utterly beyond our existing methods of analysis and generalization. Yet either process by itself must, as we started with saying, remain wholly inadequate to any satisfactory result.

Did we need actual proof of the inadequacy of one at least of these methods of inquiry, we have but to point to the totally opposite conclusions to which it has led inquirers of acuteness and research. We have on the one hand the decisive language of Mr. Buckle. "We often hear of hereditary talents, hereditary vices, and hereditary virtues; but whoever will critically examine the evidence will find that we have no proof of their existence." So far from seeing reason for belief in the transmission of special qualities of intellect or character, the matter resolves itself with him into one, not of internal power, but of external advantage. The progress of mankind, if any, is not of natural capacity, but of opportunity, or an improvement in the circumstances under which that capacity after birth comes into play. Prior to the moment of birth there is nothing to be said of aptitudes or capacities of whatsoever kind; nor have we any decisive ground for saying that the faculties of mind are likely to be greater in an infant born in the most civilized part of Europe than in one born in the wildest region of a barbarous country. The same considerations prevent Mr. Buckle from receiving statements of hereditary madness, hereditary suicide, or even hereditary disease. It is impossible for *doctrinaire* to push assertion further in this line. We are not going now into the chances of sanity in a baby hurried out of Bedlam a moment after birth, or the life prospects of one bequeathed with dying breath by a phthisical mother to the care even of the healthiest of nurses. We cannot even speculate upon the place of the infant Tasmanian or Andamanese, fortunate as to early adoption, in some future examination list at Somerset House. We would simply draw attention to the paradox, or rather the paralogism, involved in limiting the ground of inquiry in regard to this wide and complex subject to what merely comes within the ken of superficial observation, to the exclusion of principles which underlie all outward mental and vital phenomena alike.

But the method we have spoken of is logic and philosophy itself compared with the way in which the author of *Hereditary Genius* undertakes to prove his theory. In scouting, as we have seen, the notion of hereditary peculiarities, of what kind soever, Mr. Buckle was right in denouncing as in the highest degree illogical the attempt to establish their existence by any number of empirical instances. The way in which they are commonly proved, he writes, is to collect instances of some mental peculiarity found in a parent and in his child, and then to infer that the peculiarity was bequeathed. By this mode of reasoning, Mr. Buckle goes on to say, we might demonstrate any proposition, since in all large fields of inquiry there are a sufficiency of empirical coincidences to make a plausible case in favour of whatever view a man chooses to advocate. This is not the way in which truth is discovered. The obvious defect of a catena of facts on one side is that it can always be met by a similar catena on the other side. And even the superior length and weight of the chain will not necessarily make it logically binding. We ought in fairness to ascertain not only how many instances there are of talent or genius being hereditary, but how many there are of such qualities not being hereditary. And then comes in the proverbial difficulty of proving a negative.

We need not suppose that Mr. Galton's work is to be regarded as a conscious and deliberate taking up of the challenge thrown down by a philosopher so critical as Mr. Buckle. He has no patience indeed, he tells us at the outset, with the hypothesis that "babies are born pretty much alike." His protest is, however, qualified by the expression that he has generally met with it "in tales written to teach children to be good, the sole agencies recognised as creating differences between boy and boy and between man and man being steady application to moral effort." Mr. Buckle is, we need not say, the last man to be fathered with so silly and narrow a way of putting the proposition. That able reasoner would probably object in as unqualified a manner as Mr. Galton himself to pretensions of natural equality amongst all individuals, albeit perhaps not determined thereto by a like pious shrinking from democratic and levelling tendencies. Having taken up the inquiry in the course of a purely ethnological investigation into the mental peculiarities of different races, Mr. Galton originally broached the subject in two articles in *Macmillan's Magazine*, four years and more ago. Subsequent study has enabled him to mature his method, and has confirmed him in the solidity and truth of his position. The wonder to his eye unmistakably is how anybody can entertain any doubt about the matter. If he condescends to argue with gainsayers or sceptics at all, it is *ex abundanti*, and with a lively sense of superior strength. In reply apparently to exceptions taken by some one to the omission of the claims of women from their due share in the transmission of genius, he has to reply that his case is so "overpoweringly strong" that he is perfectly able to prove his point without having recourse to this class of evidence, thus keeping clear of what he oddly enough considers would be "scarcely consistent with decorum." He has thus precluded himself from whatever support he might here have claimed at the hands of the author of the *History of Civilization*, one of whose pet beliefs was that all remarkable men have remarkable mothers, as well as from the notion of independent theorists that the intellect of the son follows that of the mother, and the intellect of the daughter that of the father. Incidentally, however, some evidence from female ability is thrown into the scale, and some encouragement is given to the scheme of judging of the comparative influence of the male and female lines in conveying ability. The criterion, however, is attempted, not in the first, but in the second degree of kinship. By a process analogous with that which is thoroughly established in the realm of physiology, "a mother may transmit masculine peculiarities to her child which she does not and cannot possess." This is singularly traced out by the author in his chapter upon the Judges of England. Even while women remain, by the tyranny of law or custom, excluded from the Woolsack or the Bench, it is a comfort to find that the sum total of legal genius is not likely to suffer much from the fact of not passing on directly through a motherly judge. Though he naturally enough first suspected a large residuum here against the female line, there is reason, Mr. Galton firmly thinks, for "believing the influence of females but little inferior to that of males in transmitting judicial ability."

The same evidence could doubtless be adduced in the case of our physicians, statesmen, warriors, and other classes included by the writer in his elaborate survey. It is made the most of in the chapter on Divines. It is in relation to divinity that the pious sex might be expected to come out exceptionally strong. A slight stumbling-block was met with at the outset in the popular notion that the children of religious parents have a way of turning out badly. Against this, however, can be set the no less popular impression that "fertility of marriage and the establishment of families are largely dependent upon godliness." Here the writer is content to take the risk of statistics. "If an exceptional providence protects the families of godly men, it is a fact that we must take into account." Natural gifts, he logically concludes, would then have to be conceived as "due in a high and probably measurable degree to ancestral piety." The Roman Catholic Church, rich as she is in ecclesiastical biography, failed to furnish Mr. Galton with the statistics he desired, her peculiar institution precluding her holy personages of both sexes from founding families. The parentage of these divines or saints would, however, we should have thought, be fitting matter for the theory of heredity. He was fortunate enough, he tells us, to come in another direction upon exactly the kind of book he wanted—Middleton's *Biographia Evangelica*, in four volumes, 1786. No bigoted partiality has been displayed, we learn, in drawing up the list of 196 "truly great and gracious characters" by a writer whose leaning is strongly towards the Calvinists, while he "utterly reprobates the Papists." The results hardly seem to us so conclusive as Mr. Galton's theory led us to expect. Out of the last 100 in the list, the ancestry of the earlier worthies being too uncertain for use, it would appear that only 41 had one or more eminently religious parents. "In 17 cases the father was a minister; in 16 cases, the father not being a minister, both parents were religious; in 5 cases the mother only is mentioned as pious; in 2 cases the mother's near relatives are known to have been religious; in one case the father alone is mentioned as pious." "There is no case in which either or both parents are distinctly described as having been sinful, though there are two cases of meanness (Bullinger and Fulke), and one of overspending (Baxter)." Incidentally we learn, somewhat contrary to the ordinary impression, that "the divines are but moderately prolific." They seem to have been generally happy in their domestic life, albeit the wife of T. Cooper was unfaithful, and that of poor Hooker a termagant. Their constitutions were, as a rule, terribly bad, and it is the author's strong conviction that they are on the whole "an ailing body of men." So far from encouraging the popular nostrum of muscular Christianity, Mr. Galton's statistics lead him to conclude that robustness of constitution is antagonistic in a very marked degree to an extremely pious disposition. With the fact then that "a pious disposition is decidedly hereditary," it would seem we must couple that of a parallel heredity in weak constitutions as the condition of keeping our national piety at its proper pitch. It is some comfort to trace in the following chapters the hereditary qualities of a good constitution in the line of our oarsmen and wrestlers. A genius for rowing and athletics in general is as much latent in the blood as a genius for poetry, science, and literature, which, as well as in law, physic, and divinity, it is Mr. Galton's claim to have traced through lineal transmission. It would indeed be strange if in muscle there were not, if there is in brain, some influence dependent upon ancestry. As we descend to the mere physical class of powers and aptitudes, a different scale of comparison, as well as a clearer standard of analysis and proof, comes within our reach. Within the range of what we may call the purely organic world, as distinct from that of the mental faculties, the question of heredity stands on a totally different footing. That physical qualities, with such gifts or faculties as man has in common with the animals, together with the instincts which run into and are based upon them, are largely traceable by descent, and are even greatly subject to artificial control, is matter of familiar experience. Upon this knowledge is grounded our whole modern system of scientific stock raising. Our breeds of horses and parades of fancy cattle are proofs of heredity.

> Est in juvencis, est in equis patrum
> Virtus.

But a totally new class of elements comes in for estimation when we rise to the influences which form mind and character. Mr. Galton's theory inspires him with the confidence that "it would be quite practical, by judicious marriages during several consecutive generations, to form and perpetuate a race of intellectually gifted men and women." Pressing into his service Mr. Darwin's recent hypothesis of pangenesis, he would even account for the sudden unforeseen advent of some great man of exceptional mental powers, by the analogy of a "sport" or an unusual growth in nature. His argument here, which is certainly ingenious, derives whatever show of force it possesses from our inability to pursue it into the realm of fact and experience. The hollowness of his whole scheme is sufficiently shown by two simple considerations. First, in cases where it is most needed it most signally fails. Where genius is most transcendently manifest, in our Shakspeares, Miltons, Cromwells, we are absolutely at a loss for any traces either of descent or transmission. We see neither ancestors from whom the seed of genius has been handed down, nor progeny in whom it has continued prolific. In spreading his net so largely, Mr. Galton has secured a draught of evidence which we can but characterize as largely mediocre, and such as points with infinitely greater truth to the influence of a generally diffused and high-pitched culture than to anything of the nature of inherent genius following upon a strain of blood.

Lastly, Mr. Galton's elaborate figures may be as easily turned to support the very opposite conclusion to that for which he entered upon the compilation. Say that eminence has been shown for any number of generations, and with the widest collateral breadth. And hereditary genius is even in these tables seldom traced beyond two or three degrees of succession or relationship. What Mr. Galton sees here is the strength of the single element of affinity which forms the connecting link. Yet what others may with at least equal logic claim to see, is the infinitely preponderant strength of the external elements which, under like conditions of descent, have determined such vast differences of mind and temperament. Why do children of the same parents grow up so widely apart in intellect and character? Why are the great men on Mr. Galton's list above their brothers and sisters at all? In what proportion, again, are we sure that eminence or success in the world stands to purely personal or inherited merit? The fact is, the elements which go to make up the complex organization of man are too various and conflicting for analysis such as that before us, and are of a kind incapable of being brought to the empirical test of statistics like Mr. Galton's. We are not to be driven, as he seems to think, to the opposite absurdity that all babies are born equal, or that no germ of mental difference whatever accompanies the transmission of physical life. The problem for all is to distinguish this elemental germ among the mass of elements of an external kind among which it has its life and growth. Until we can do infinitely more towards sorting the stores of man's mental growth and experience into what he brings into the world and what he draws from his subsequent surroundings in the world, our minds are in no condition for even the first shadowy conception of a "law of heredity." Without some kind of logical soul in the synthesis of fact with law, the mere accumulation of disjointed facts remains an inert and lifeless body. And, for want of this vital correlation with the first principles of philosophical thought, the long array of names and figures which are made to prop up the hypothesis of hereditary genius, however interesting as bits of biography, seems to us logically worth nothing.

---

* *Hereditary Genius: an Inquiry into its Laws and Consequences.* By Francis Galton, F.R.S., &c. London: Macmillan & Co. 1869.

TRANSATLANTIC SKETCHES.*

IF we cannot honestly say that Mr. Chester is a philosophical, an unprejudiced, or even a very observant traveller, we may admit that he has written an amusing account of his travels. He left England in October, 1867, spent several months in Barbadoes, and after visiting several places in the West Indies, made a hasty dash through the United States on his way home. From this outline of his travels it may be anticipated, as indeed is the case, that his account of Barbadoes is likely to be the most valuable part of his book. The time is, or ought to be, passed in which a rush from New Orleans to Boston at railway speed could justify a man in publishing his views of American politics, religion, and society; and, as we shall presently have occasion to remark, Mr. Chester does not justify his performance by any very valuable information. About the West Indies, however, he has rather more to tell us; his glimpses indeed of most of the islands were hasty enough, and he can give little more than an account of first impressions. But of Barbadoes he has seen more, and we may endeavour to draw from his pages a few of the most striking aspects of Barbadian life as they strike an intelligent observer. It is as well, however, to premise certain facts as to Mr. Chester's qualifications. He is, in the first place, a cultivated and intelligent gentleman; secondly, he is a most determined High-Churchman of the purest type. The Church of England is the object of his unflinching loyalty. He does not love the Roman Catholics, and is quite ready to point out the defects of their teaching and practice; but he uses Protestant or Puritan as terms of abuse, and fairly loathes a Dissenter. He regards Wesleyans, Baptists, and Unitarians with a bitter contempt which is scarcely worthy of a liberal writer, and must obviously colour his views of countries in which they abound. Finally, we may observe that Mr. Chester is opposed to slavery, but that he distinctly prefers a slaveowner to an abolitionist.

Premising this, by way of caution, we leave it to our readers to judge of the value of his remarks on Barbadoes—or, as its inhabitants call it for some mysterious reason, Bimshire. Every Bim, says Mr. Chester, has a deeply-rooted belief that Barbadoes and its inhabitants are superior to the whole world, and above all to England and its inhabitants. Mr. Chester's opinion is slightly different. The male Bims, he says, are an effeminate race. They are either thin or podgy; their complexion is "thick and corpse-yellow," varied with freckles, yet they constantly try to preserve it by wearing linen masks; they talk in a drawl, like the worst drawl of the United States deprived of its vigour; they are mean beyond description, they are cruel to the poor, and are constantly whining over their alleged want of money. They have ceased to be hospitable, and the tradition that they once were so must refer to so early a period that it was nothing more than a tradition in 1708. The young men are "loafing, idle, and effeminate"; their elders are careless of their moral welfare; the clergy are passive, and the motto of the whole race is "let ill alone." The women are as wanting in energy or in any good works as the men. During ten months in Barbadoes Mr. Chester cannot remember having once heard the expression of a noble, a liberal, or a devotional sentiment outside one family. The black population is enormous, and owing to its density the negro has not been able to develop his tastes for lazy basking in the sun. Mr. Chester says that the blacks are on the whole industrious, and that the planter is more to blame than his servants for any disagreement between them. This, however, seems to be the best that can be said for them. They are scandalously immoral; marriage seems to be dying out; and they have many of the faults, such as lying, cheating, improvidence, and want of care for the old, which are the natural product of a long-continued state of slavery. But, bad as are the planters and the negroes, the poor whites are far worse than either. They are "wretched beings," yet intolerably conceited; their idleness is only equalled by their shameless beggary; they are as sensual as the negroes, yet without cheerfulness or joviality. They will whine abjectly for a cent, insult you if they don't get it, and, if they do, look upon it as a tribute to their race and their predominance over the unlucky negro. There is "one gentlemanlike place" in Barbadoes, Codrington College, founded by a Fellow of All Souls'. Unluckily the place seems to have caught some other peculiarities from its founder's college besides its gentlemanlike tendencies. It has only eight pupils a year, and seems, like other things in Barbadoes, to be in a deadly-lively condition. The climate of this charming island is described as being "excessively exhausting," and more so to the natives than to the freshly-landed Englishman. Yellow fever occurs at intervals, and a horrible sort of elephantiasis, known as "Barbadoes leg," is common. There are from fifty to a hundred lepers in the hospital near Bridgetown. Even the sheep lose their wool, and are covered with short yellow hair, black at the muzzle. As a rule, Europeans are attacked on their arrival by prickly heat, of which, according to Mr. Chester, an artificial imitation may be obtained as follows:—Being first covered with chilblains, you should then get yourself stung alternately by mosquitoes and red ants; "rub in a little cayenne pepper, get a friend to whip you with nettles, and finally roll for an hour or two upon several dozen of the best Whitechapel needles, with the points upwards. This receipt is infallible."

Without going further, we may presume that Mr. Chester does not contemplate a second visit to Barbadoes; otherwise we should recommend him to stop the circulation of his book as soon as possible. We are not inclined to take up the cause of the unlucky Bims, or to account for any of the dislike which Mr. Chester so forcibly expresses. We hope that the wrath which he has emptied upon their heads will serve as some apology to any sensitive American who may read the last half of his book. A gentleman who can express himself so frankly about his fellow-subjects can obviously not be prejudiced against Americans on account of their being aliens. We must, however, warn Mr. Chester that the two or three compliments which he has thrown in will certainly not pacify American indignation. Though in general terms he describes them as our brothers, that conventional expression obviously expresses his real feeling as little as it would describe Dr. Cumming's sentiments towards his dear brother Pius IX. At any rate, if Mr. Chester holds the Americans to be brothers, he takes them to be the scapegraces of the family, who are very likely by their Protestantism, rowdyism, democracy, and other enormities to bring discredit on the connexion. We imagine, however, that Americans will take refuge in the reflection that Mr. Chester cannot have studied their history or politics so profoundly as to be a really well-qualified observer.

Thus, at the beginning of the American tour, we stumble upon the following curious blunder. When the Northern troops occupied New Orleans, as Mr. Chester sarcastically observes, "they with exquisite taste cut twice upon the granite pedestal of this statue" (that of General Jackson) "*à propos* to nothing that was said or done by General Jackson, '*The Union must and shall be preserved.*'" The proceeding of the Federal troops may not have shown much delicacy, but it had some point. The words in question were a toast given by General Jackson on the occasion of a public dinner at Washington on Jefferson's birthday; and they made a great sensation at the time, because they were understood as a declaration against Calhoun and the South Carolina scheme of nullification, which was the earliest precursor of secession. They were therefore quoted in about three out of every four stump orations in the North during the war, and were as popular a catchword as Grant's "Unconditional surrender" or "Let us have peace." Mr. Chester may now perhaps see the force of the remark. Another odd argument is of rather more importance. Mr. Chester is exceedingly indignant with the epithet "Godfearing" applied by most popular writers to the Northern people in virtue of their Puritan descent. We are much inclined to agree with him that it is a very silly bit of cant, and we fancy that it is commoner on this side of the water than in a country where its inaccuracy would be better understood. Mr. Chester, however, is really taking a very bold line of argument when he quotes the epithet with a sneer, in order to confront it with accounts of the frequency of murder in Texas. No human being, we will venture to say, ever called the American inhabitants of Texas a "God-fearing" population. The sarcasm is about as much to the purpose as if an American writer should laugh at English respect for the law because Irishmen are in the habit of shooting their landlords. We remark this because Mr. Chester has one simple method of dealing with all American problems. Every vice which he can discover he sets down summarily to Puritanism without troubling himself to explain the connexion or to ascertain the real power of Puritanism in America at the present day. Thus, for example, there is one very important subject upon which he speaks with interest, and which certainly deserves attentive consideration. The prevalence of infanticide and other objectionable checks to population is said to be seriously injuring the native population, especially in New England. Mr. Chester of course sees in this one of the disastrous effects of Puritanism. It may be so; but we would suggest a consideration or two of a different kind. In the first place, Mr. Chester declares in the very same breath that when Puritanism was really a powerful force, as in the seventeenth century, the population increased rapidly and large families were common. As Puritanism has died out the practices of which he complains have increased. This would be a fair retort in the mouth of a Puritan. But there is a still more obvious reflection. We find a very similar phenomenon in France, as compared with England, though there it is a Catholic country by the side of a comparatively Puritan country. We take it that one great cause is an economical one of a very simple kind. In France population increases slowly because the people are singularly saving and indisposed to bear the burden of a family. A similar tendency produces the same effects in America. The comfortable part of the population—that is, the native part—finds the struggle of life increasingly difficult in consequence of the dearness of labour, and the consequent trouble of maintaining a family in a respectable position. The Irish labourer is more reckless and multiplies as fast as he can. The American, as a more civilized being, prefers a certain degree of comfort to a rapid increase. Other results of the same principle, but of a less objectionable kind, strike every traveller at every point of his journey. The very serious evils to which Mr. Chester alludes are not to be overlooked, but we doubt exceedingly whether Puritanism is in any degree responsible for them. Mr. Chester, going to America with certain preconceived notions, has of course found plenty of confirmation for his prejudices, and is as certain of the explanation of all social phenomena as if he had lived in America fifty years—or as many weeks. A few months' longer stay would have increased his diffidence and enabled him to write a more valuable book. After his account of Barbadoes, we cannot add that it would have been more agreeable to the people concerned.

* *Transatlantic Sketches.* By Greville John Chester. London: Smith, Elder, & Co.

guessed; all the usual babble about "Saxon," "Saxon element," and so forth. Not a word is there of the real history of the language, not a word of its relations to other Teutonic and other Aryan tongues, save on two pages which open together, and on the latter of which it seems suddenly to flash across Mr. Fleming's mind that *am* and *εἰμί* may have something to do with one another. And all this is the more strange, because Mr. Fleming's knowledge of Old-English and of other Teutonic languages seems to be decidedly greater than that of most of his order, and some of his particular remarks as to the relations between earlier and later English words and forms are much to the purpose. But whatever he knows on these points—and it is certainly much more than usual—is kept as it were isolated, and is not used in any systematic or scientific way. We see, in short, no signs of that "study and practice of method" of which Mr. Fleming talks so grandly in his preface. In the same preface, by the way, the following mysterious passage occurs. "The Saxon element has been carefully *referred to the authority* [*sic*] of Bosworth and Rask; for, of late years, several Saxon words of dubious origin have crept into existence." This is quite beyond us, unless haply it is meant as a rebuke to Mr. Ruskin for calling *mob* "vigorous Saxon." Besides Bosworth and the great name of Rask, Mr. Fleming's other authorities are rather funny—Angus, Latham, Marsh, our introduction to the first of whom we owe to Mr. Fleming—Richardson and Wedgwood for derivation; who of course lead Mr. Fleming into some very odd derivations. Mr. Wedgwood's book, we need hardly say, is most useful for the mass of local and obsolete forms in various tongues which its author has gathered together, but it is altogether unsystematic and unscientific.

We will now run through Mr. Fleming's book, and mark a few of the things which he knows and does not know. He thinks that *Cymry* is to be pronounced like Cumru and Xenophon like Zenophon; in the same page þ is defined as *th* and ð as *dh*, an error which is recanted further on. He believes in a singular *pea*; he has (see pp. 23, 24, 26) queer notions about terminations in *ry*; and he seems not to know that *chicken* is the plural of *chick*. On the other hand he knows that *riches* and *alms* are really singulars; he knows that the genitive ends in *es* (though the apostrophe troubles him a little); that [illegible], is *on*, *homme*, homo; and he is quite orthodox on such a phrase as "to go a-hunting." All this, during the present hard times, is very praiseworthy, but we are inclined to have a little fight with Mr. Fleming when he says

> In *Anglo-Saxon*, and in *Greek* and *French*, *two negatives strengthen the negation*. In *English* and *Latin* they destroy one another.

In Old-English and in Greek two or more real negatives undoubtedly strengthen. But the case of French, with the accidental negative force which such words as *pas* and *jamais* have got to themselves, is wholly different. So when Mr. Fleming says

> National names compounded with *man* make the plural in *men*; as, *Frenchman, Frenchmen.* Exception, *Norman*—

why does he not add the reason? We say North*man*, North*men*, because the full form is strictly our own form, and both parts of the word retain their meaning, but the other form *Norman* we get in its softened shape from the French and treat it accordingly. Also in the same page we read:—

> In Compound nouns the substantive part takes the plural suffix; as, *courts martial, Knights Templar, aides-de-camp.* So also we say the *Misses Thompson.*

We say "courts martial" because *martial* is an adjective; but we say "Knights Templ*ars*" just as we say ἄνδρες ποιηταί. We have, indeed, heard such plurals as "Clerk-of-the-Peaces" and "Member-of-Parliaments," but we go all lengths with Mr. Fleming in condemning them. As for saying "the Misses Thompson," we can only say, "We know we ought, but we won't."

In etymology proper Mr. Fleming, as might be expected from his chief guides, is very amusing. We can only cull a very few flowers. *King* (cyning) is "from *connan*, to know." *Queen* (cwén), "from *gewunian*, 'to dwell with,' contracted *cwunian*." Lord is "(A. S. and Lat.) *hlaf*, lofty, *ortus*, born; or (A. S.) *hlaford*, loaf-giver." Lady is "A. S. *hlaf*, raised, *ig*, add; from *eacan*." "Baron (A. S.) *beorgan*, to fence or protect (with armour), H. Tooke." "Bailiff, from *vallum*, a rampart, one who looks after the enclosures." Adultery is from "ad alterum" or "ad alteram." Lastly, the *henchman*, the man who stands at his lord's *haunch*, is "possibly from Hengist, the lieutenant of Horsa," while the *horse*, the horse himself, Equus caballus, is "possibly from the Saxon warrior Horsa." Let us add, as our own contribution, that the *mouse* is possibly from the Roman warrior P. Decius Mus, and that the "majores mures qui vulgariter vocantur *rats*" were no doubt called after some versatile politician who *ratted* from Stephen to Matilda or from Matilda to Stephen.

GUY VERNON.*

THERE is a wonderful class of novels which we cannot more fitly characterize than by describing them as a compound of finery and foulness; as one would say of a cartload of trumpery gewgaws, artificial flowers, glittering bits of tinfoil, and the like, strewn over a mud-heap. The sentiments and ostensible motives influencing the characters are superfine to the last degree, but the groundwork supporting the whole will not bear analysis. Put the plot of one of these books into plain English and see what it comes

* *Guy Vernon.* By the Hon. Mrs. Woulfe. 3 vols. London: Hurst & Blackett.

F. 10 r

a good many of those terrible sprightlinesses about "Scumble's" pictures, "Smithby's" waltzes, and "Twaddle's" rhymes. We do not mean to say that this sort of thing has been by any means a regular constituent in the *Daily News*. That would, indeed, be a calamity. But since the various failures to remodel the *Star*, and its decease, we have read the *News* with a good deal of anxiety, because we have felt that on the *News* must depend for the future the representation of all strong and deep Liberal conviction which does not take the cue from the people, but seeks to give direction to the mind of the people; and we cannot but note with alarm any tendency observable in it towards even *intellectual* pulpiness. If once articles without form and void, articles of mere pulp, articles not intended either to give information or to form conviction, but only to minister to a certain appetite for easy reading, are favourably regarded, the degeneration may extend only too rapidly to subjects of more moment. There is a real affinity between disregard of intellectual outline and accuracy, and disregard of moral outline and accuracy. Gelatin without fibre in matters intellectual is rarely relished or willingly manufactured except by those who can easily contract, even if they have not contracted, the taste for gelatin without fibre in matters of deeper moral and political moment. We value the *Daily News* so much, as by far the highest in tone of our Liberal papers, by far the clearest and deepest in conviction, the most sincere, sober, and arduous in advocating a cause, that we watch its career with a sort of jealousy, and note any tendency to substitute what the doctors used to call "slops,"—farinaceous food, "poorly pudding," and the like,—for the strong and manly diet to which it has accustomed us,—with a certain vexation and dread. The *Daily News* is, and we hope long will be, far the best of the daily papers which profess a Liberal faith. But whatever excellences it may borrow from among the many excellences of its rivals, we do trust it will not endeavour to provide its readers with even occasional doses of *Telegraph*-and-water. That sort of thing won't bear watering, even if it were fair to try and infringe the monopoly of a patent medicine by merely diluting the ingredients of which it is composed.

X

HEREDITARY GENIUS.

WE do not see that Captain Galton has contributed very much towards the discussion of the true point at issue in this matter. His book is a very clever one, though it belongs somehow, with its shrewdnesses and crotchettinesses and acute sense and absurd nonsense, to another age rather than this, but he has assumed throughout the subject upon which men differ. This is not whether qualities are or are not transmitted in human beings by descent, but what qualities. The old democratic assertion that all men are born alike, and that education and circumstances cause all the differences which exist, is as nearly dead as the far more absurd aristocratic theory that the longer the descent of the individual, that is, the farther he is removed from the competent founder of the line, the purer is his race. The democratic theory had for warrant, we imagine, an assumption that God could not have been so unjust as to create men unequal,—as though men were never born blind, or dumb, or scrofulous,—and for evidence, the fact that the sons of eminent men are very often very silly persons, which is quite true, but which proves very little indeed, except that a law apparently general may have many exceptions and limitations. Another argument that if hereditary qualities are transmitted all the sons of one father and mother ought to be alike, but are not, is stronger, but is still weak in face of the irresistible evidence for atavism, that is, for the recurrence in a family of a particular type not regularly, but in jerks, the law usually skipping a generation. Jerome Buonaparte was a Bœotian, while Napoleon was a great man, but Jerome's son is a man of exceptional ability, and Lucien's grandson, the Cardinal, is considered, we believe, on evidence which we do not quite understand, but which is entirely trusted by the people of Rome, to possess the highly exceptional brain of his greatest relative. On the other hand, the evidence for the transmission of hereditary qualities seems to be overwhelming. It is, for example, quite certain that special qualities, peculiarities, and even faculties, can be made permanent in most animals, have, in fact, been made permanent by careful breeding in all the domesticated races, and in some of the non-domesticated, as pigeons, rabbits, and, the huntsmen say, the cheetas, or hunting leopards. A pariah dog cannot point, while the descendant of a great racer will be as certainly swifter than the descendant of a cart-horse as a young hare will be swifter than a young rabbit. It is almost equally certain that the possibility of transmission extends to human beings, for without it there would be no means of accounting for the well-proved differences of race among nations of the same colour. Why, for example, is the Jew in all countries—even when he has become, as in Germany and Italy, an intensely absorbent being—so widely separated in nature from the race whose life he lives, and whose qualities act so bitingly upon his own? If the race can vary, so can the clan, and if the clan, so can the family; and all evidence shows that this is, in fact, the case. If the defenders of the aristocratic idea knew their own business, they would rely almost entirely upon two races notoriously pure from intermixture,—the Jews, and the Brahmins of Bengal. In the first instance,—though we admit this would not help them in England, where the Jewish nose is supposed to have been specially modelled by Providence,—they would be able to prove that a race sprung from an ascertainable stock exhibits at the end of a career of three thousand years qualities as exceptionally high, a force as exceptionally great, and vitality as exceptionally powerful as when it started, produces in the nineteenth century a poet of a rank as lofty as its poets of the tenth B.C., and religious thinkers as original as the first apostles of monotheism. In the second instance, they would be able to prove by the record of fifty years that in an Indian province, Benares, where the castes all look alike, where there is no apparent difference of race, where the Brahmin is not the richest, and where he is emphatically the most vicious, the Brahmin child takes in the colleges a decided lead, a lead which is menaced only by the children of the single family, the Sens, acknowledged to represent the old Medical Caste, otherwise extinct, and the Dutts, the heirs of the henchmen brought by the Brahmins into Bengal. The cause of that superiority may be hereditary cultivation, but if so, the capacity of cultivation is a transmissible quality, and it is useless, in the teeth of such evidence, to deny that *something* is transmitted by descent.

The real point is not, we imagine, that, for that is given up, except by a few men who think that if they allow inequality of birth, they disallow equality of rights,—two claims which have no more conceivable connection than equality of rights and identity of race,—but what is it that is transmitted? Clearly all the parents' qualities are not, or all sons would be alike. It is conceded that it is not merely physique in the narrow sense, and the case for physique in its broadest sense will not stand examination. Suppose we assume that only those qualities which depend upon, and are connected with, the physical organization, are transmitted, then we find no doubt at starting one very noteworthy fact. The capacity of music is in the highest degree transmissible, being in fact perhaps of all capacities the one most dependent upon descent, while at the same time there is in the whole range of history but one instance of a great poet who was father or son to a great poet, and that one is only proved by traditionary evidence. If Solomon wrote the Canticles, then the son of a great poet was a great poet too, but the instance is exceptional, and the evidence far too shadowy to sustain any scientific or *quasi*-scientific proposition. The effect of that illustration is strongly in favour of the physical theory, but the moment we apply it on a broader scale the illustration becomes useless. Races differ more in their minds than they do in their bodies. Not to quote, again, the unanswerable instance of the Benares Brahmins—an instance which was enforced by the late Dr. Ballantyne, the Principal of the Benares College, through whole tables of official figures—no one seriously doubts that the Jew, the Frenchman, the Basque, the Parsee, and even the Gipsy, displays a separate mind, a something peculiar to himself, and different to all other men, which cannot be considered physical, except on the materialistic theory that *all* mental operations are physical changes within the brain. [If they are, then, of course, the difficulty is thus far altered, that we have to ascertain which plate of the brain battery is transmitted, while the others are unchanged; but to save time we assume for the moment that there is a mind.] If, then, some mental characteristics are transmitted, what mental characteristics? Clearly, not that something, whatever it be, which we call genius. The entire experience of mankind forbids us to expect that Shelley's son will be Shelley, that in the few cases in which the father has possessed some power so unusual that ordinary men, who recognize it to the full, cannot define it, the son should possess it too. The first-class men of earth have rarely left heirs whom anybody ever heard of as men of equal power. Take the men of the very first class, the men who have changed the faith of tribes or nations, and there is not, that we can remember, a solitary instance of the descent of that supreme faculty. Who represents Moses, or Socrates, or Mahomet, or Confucius, or Gautama, or Calvin, or Luther, or Spinoza, or Wesley,

UNIVERSITY COLLEGE LONDON GALTON PAPERS

f. 10v

or Jonathan Edwards, or any one of those who founded or profoundly modified great creeds? We have already said that, with one partial or possible exception, no poet has been succeeded by his equal, and so also has no Commander. Captain Galton, who wants one dreadfully, cannot find one, and if we range the world in the search, the best of the partial exceptions are Tchengis Khan, whose descendant was Timour, *not* a genius, though a conqueror; Baber, an able, good-humoured drunkard, whose son, Humayoon, was a genius and a lunatic; and Edward III. and the Black Prince, who, though considerable Captains, are not of the rank to which genius is attributed. Statesmen have, no doubt, been succeeded by equal sons, but not in the few instances in which those statesmen have displayed more than high capacity,—the ability to found. We must look lower than genius for the quality, and even then we shall be puzzled. Captain Galton seems to consider that he has settled the matter when he describes the quality as the power of rising to eminence; but not to discuss the extent to which he has strained his own definition, what is it but a fresh statement of the puzzle? *What* that was transmissible raised his *proteges* the Judges' kinsfolk to eminence? Was it anything more than a certain capacity for learning the work the family has always had to do, which courtiers have always asserted of boy kings, and which being, as it is, exactly analogous to that hereditary capacity for book-learning which is past dispute, may be in some greater or less degree a demonstrable fact, and be independent to some minute extent of the education itself? The transmissible power is, under that theory, an unusual sensibility to certain influences, an unusual readiness to respond to certain opportunities, but that is a very unsatisfactory and vague definition. If we knew anything of the origin of races, we might perhaps get nearer to the truth; but then we know so very little. If we knew the family or group of families from which the Roman patricist sprang, we might be able to affirm with some confidence that of all qualities, that of dominance, the faculty which imposes law on others, is the most transmissible; but then we know next to nothing of those original persons, and cannot argue from them to any family, still less to any caste. Castes, indeed, present such a conflict of evidence, that the mind of the inquirer is hopelessly bewildered. The facts just related of the Brahmins seem to point to a definite result, which is also true of Jews, and in a less degree of Parsees, namely, that a family, or group of families, if they keep their blood pure, may accumulate capacity for receiving certain forms of education; but, then, that is wholly untrue of the Spanish grandees and the North-German blue blood, and only appears to be partially true of the English Peerage, because it has never been properly a caste at all. Study it as we may, till we have obtained new evidence, we shall still be forced to return the unsatisfactory verdict of a coroner's jury,—that qualities are clearly transmissible, but how, why, or to what extent, there is no sufficient evidence to show. All that seems certain is the fact which is fatal to the theory of ancient blood, that the tendency of each successive descent from the founder, after the second, is to water his specialties down, until they are non-existent. And in spite even of that, the young Pretender was Stuart to his toes, James V. over again, with a little less backbone to his will.

THE SUN'S CROWN.

A CIRCUMSTANCE has just been brought to light through the careful study of the photographs of the recent total solar eclipse which is full of interest and significance. When the sun is totally eclipsed, there springs suddenly into view a glory of white light, resembling the *nimbus* with which painters surround the head of a saint. Astronomers have agreed to call this appearance the *Corona;* but hitherto they have been perplexed by doubts whether this crown of glory belongs to the sun or to the moon, or whether, in fine, it is formed by our own atmosphere.

If we briefly consider what is commonly seen, we shall be the better able to appreciate the interest and importance of the discovery which has just been made respecting the corona.

As the moon is about to hide the last narrow streak of the sun's disc, the first signs of the corona make their appearance. But only when totality has commenced does the phenomenon present itself in full splendour. It is no faint gleam, like the light of a twilight sky. "I had imagined," says Mr. Baily, speaking of the eclipse of 1842, "that the corona, as to its luminous appearance, would not be brighter than the faint crepuscular light which sometimes takes place on a summer evening. I was, however, astonished at the splendid scene which suddenly burst upon my view." All round the eclipsed sun, to a distance equal to about a tenth of his apparent diameter, there is a brilliant ring of light, which appears under favourable circumstances of vision to have a well-defined edge. But this is not the complete corona. Beyond the edge of this ring of light extends a fainter ring, sometimes spreading out into rays or streamers, which extend some eight or nine times farther from the eclipsed sun than the bright inner circle of light. The colour of the corona is commonly described as white; but there can be no doubt that when seen through a pure atmosphere it presents tints of red, yellow, and blue.

Such is the corona as seen by astronomers. But the question will at once arise, what is the real position and what are the true dimensions of this beautiful object? Of course, if we regard it as a mere optical phenomenon produced by our own atmosphere, we need not try to find an answer to these questions. The appearance of the corona, its apparent figure, and its variations of figure would then have merely a meteorological interest, apart, of course, from the optical questions they involve. If, on the other hand, we regard the corona as a real solar appendage, we are forced to consider it as one of the most important and striking features of the solar system. The ring of brighter light around the sun is then seen to represent a globular shell about 90,000 miles in depth, and surrounding the whole mass of the central luminary of the planetary system. The fainter part of the corona becomes an even more astounding phenomenon, since looked on as a solar appendage it represents a shell of matter fully 800,000 miles deep in every part, and forming with the sun, which it encloses, a sphere some two-and-a-half millions of miles in diameter,—the largest sphere of matter which the science of astronomy presents with any certainty to our consideration. But if the corona belongs to the moon, its dimensions shrink into relative insignificance,—in fact, our own earth is a larger globe than the coronal sphere so understood.

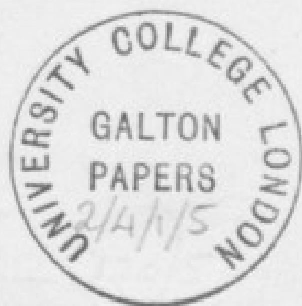
The question of the corona has long been seen to rest between the two former solutions. Halley rather favoured the notion that the corona is a lunar phenomenon; but he admitted that one whose judgments he "must always revere" (he referred, doubtless, to his illustrious friend Newton) held a contrary opinion. We now know very certainly that the moon has no atmosphere whose extent we can measure,—certainly no atmosphere approaching in extent the dimensions of the coronal rings.

During the great solar eclipse of 1868 very little attention was given to the corona, because astronomers were very anxious to determine the nature of the rose-coloured prominences. But from the few observations which were then made, the question whether the corona belongs to the sun or is a phenomenon of our own atmosphere was left an open one. It was hoped that the problem of the corona might be solved during the total eclipse which occurred last August in North America. At first, however, the results of the observations seemed more perplexing than any which had yet been presented to the notice of astronomers. As Mr. Lockyer remarked, they were "*bizarre* and puzzling in the extreme." They seemed to point to the corona as a permanent solar aurora, since some of the observers found in the spectrum of the aurora the same bright lines which belong to the spectrum of the aurora borealis.

So perplexing did this result appear, that Mr. Lockyer was disposed to doubt whether some mistake had not been made. The results of his own observations had led him to the conclusion that the solar atmosphere in which the red prominences are formed is by no means so dense as the enormous dimensions of the corona would imply, if the corona really were a solar atmosphere. It will be known to many of our readers that Dr. Frankland and Mr. Lockyer have worked together in this matter, and they have found that the appearance of the bright lines belonging to the prominences can be taken as a means of estimating the pressure of the atmosphere in which those prominences appear; and the result of their observations pointed, as we have said, to a relatively rare atmosphere. But now it would seem that little further doubt can be entertained respecting the fact that the brighter coronal ring, at least, belongs to the sun. For on a careful comparison of the photographs taken during the recent total eclipse, it has been found that the disc of the moon *travelled over* the corona; and further, that the corona presented the same appearance as seen from widely separated places. It will be remembered that photography gave in the same way the first evidence of the true nature of the coloured prominences. It was discovered during the eclipse of 1860 that the moon *travelled over* the prominences, and so astronomers pronounced decisively that these objects belong to the sun. It would appear quite as certain, now, that the corona is also a solar appendage.

But how are we to get over the difficulties suggested by Mr. Lockyer's observations? It seems perplexing in the extreme to regard the corona as a solar atmosphere, because, were it really of

f. 11r



Temple
Feb 24.
1870

Sir.
Your letter has been forwarded to me by the Editor of the Pall Mall Gazette. I need not say that I did not for a moment doubt that you would receive the remarks I made about your book in the spirit in which they were offered, but I am very much gratified by the cordial manner in which you have accepted them. I have read your book with attention and with very great interest, and I sincerely wish it the success which the industry and ability shown in it deserve. I look upon it as a valuable supplement to Darwin and a most useful ally to every one who has occasion to combat the sham philosophies of these latter days and I hope ere long to see

f. 11v

a second edition out, in which your case, strong as it is already, will be made even stronger.

I remain, Sir,

Yours faithfully

John Ormsby

Francis Galton Esq

and to have granted the new Ministry less unconditional support at the beginning. An armed and expectant neutrality would have been, I think, the right attitude. This requires an explanation, I know; and, with the fear of Practical Englishmen before my eyes, I will attempt it in my next. I have not much space left to-day, and would wish to say a few words about another party in the Chamber, the Left.

No words can give an idea of its complete state of confusion—in fact, it is no party at all. It was from the first composed of the most heterogeneous elements, and that fact becomes more glaring every day. There are men comprised under that one denomination, "the Left," who have not a single idea in common. When they were elected there was no question of parliamentary government, and the only quality that their constituents demanded of them was an uncompromising hatred of personal government. They might be Republicans, Monarchists, or Socialists; it mattered little provided they were of the Irreconcilable Opposition. The task set to them was exclusively one of destruction. These men cannot now work together. The better portion (and among them are to be found men of great worth and talent, such as Grévy, Picard, and Jules Simon) have now some difficulty in freeing themselves from the mass of demagogism and socialism with which they have become entangled. A kind of *point d'honneur*, too, prevents them from separating violently from colleagues who are, to a certain degree, persecuted. Nor, to borrow Abraham Lincoln's phrase, is it easy "to change horses in the middle of the ford." Moreover, angry feelings have grown up between them and even that more liberal portion of the Left Centre which they must join if they leave their present associates. It may be, however, should the Left Centre break up, that out of its more liberal fragments and the more rational portion of the present Left, a party may ultimately be formed. This would be a most desirable consummation. A stout, working, radical—but not socialist or revolutionary—opposition would be a great advantage, and would keep any future Government in order.

The great mistake in judging us is to speak of our Government as being at present a Parliamentary Government, for we have no really organized parties. M. Ollivier himself has committed this mistake, and has sought to govern like a Constitutional Minister with a Parliamentary majority. He should have felt that he was not the first Minister of a Parliamentary Empire, but rather the last Minister of Personal Government, appointed by the will of the Sovereign against the wish of the majority. He should have taken advantage of this transitory state to overstep for the last time, and for a noble motive, the rules of so-styled Parliamentary Governments. He should have boldly leaned on the independent fraction of the Chamber whose opinions he shared and upon whose shoulders he had been borne to power, and have trusted to the prestige of authority and to long habit for obtaining the votes of the Right. They belonged to the Emperor, and would not have been denied to his Minister, whoever he was. Had M. Ollivier chosen the one thing needful, I have no doubt that all the rest would have been added.

HEREDITARY GENIUS.

A book so painstaking and so free from dogmatism as Mr. Galton's "Hereditary Genius" naturally disarms fault-finding criticism; and we need not say it is not in that spirit, but simply because Mr. Galton himself seems to invite correction, that we mention one or two corrigenda for the next edition of his work. As he says himself, his sins are those of omission rather than of commission; but he has at any rate made one slip of the latter sort in confounding (pp. 173, 190) Miss Jane Austen, the novelist, with Mrs. Sarah Austin, *née* Taylor. The relationships of Sir Thomas More and Judge Rastall to Dr. Donne, the Dean of St. Paul's, are incorrectly stated. The former, according to Fuller, the Church historian, was Donne's great-great-grandfather, and the latter, a son of Sir Thomas More's sister Elizabeth, his great-great-uncle. The case of George Herbert, the poet, might, we think, have been fairly strengthened by mentioning his first cousin, Sir Thomas Herbert, the Oriental traveller, who certainly had no small share of the family ability, and no inconsiderable reputation as the author of the most interesting and popular book of travels of his day. And in the Cowper family Ashley Cowper, son of Spencer, the judge, and uncle of William, the poet, might well have been given a place. His merits as a poet are not, it is true, of a very high order, but they are respectable, and in this particular case worth notice, as there is a very curious family likeness between his poetry and that of his more famous nephew. But perhaps the most noteworthy point in Mr. Galton's book is in his chapter on the comparative worth of different races, where he contrasts the ability of the ancient Greek race with that of our own, and his statements on this head have, we observe, been received with amazement by some of his critics. He asserts roundly that the average ability of the Athenian race, measured according to his scale, "is very nearly two grades higher than our own; that is about as much as our race is above that of the African negro." This is going even farther than that unfortunate "Illinoy" gentleman who was shot down by Mr. Hannibal Chollop "for asserting that the ancient Athenians went ahead of the present Locofoco Ticket." Mr. Galton's argument is briefly this. Selecting a century (530 to 430 B.C.) of Athenian history, he finds within that period fourteen undeniably illustrious men. These men came from a population of only 90,000 freeborn persons. From this, after going through the requisite calculations, he deduces what may be called an "eminence rate," and consequently an average ability, for Attica, much higher than that of Great Britain as shown in his tables. His figures are unimpeachable, but we think his argument may be questioned. As he puts it, the population of Attica, besides these 90,000 freeborn persons, comprised 40,000 resident aliens and 400,000 slaves, but the last two items, he says, do not concern us here. But is there not something of a fallacy in this? The two last-named classes did not contribute directly to the ability of the Athenian race; though even this statement must be qualified, for, as Mr. Galton admits, Themistocles, one of his fourteen, was the son of an alien mother. But indirectly they certainly helped materially to raise the standard of ability. The slave population of Attica, it should be remembered, played a very important part in the economy of the State. The slaves were by no means merely domestic servants and field-labourers; they were the tradesmen, artisans, and manufacturers of the country. Even in the public offices, all the subordinate posts, clerkships, and the like, appear to have been filled by slaves who were the property of the State. In fact, all the mechanical work of the community, all the necessary drudgery and labour, was done by the slave population, leaving the freeborn population at liberty to devote itself to culture, art, science, literature, philosophy, and politics. It is obvious that a select class of this sort cannot be fairly compared with a community embracing all classes. You might just as well compare the racing-stables of one county with the total of the horses of all sorts in another. Unquestionably these 90,000 Athenians were a magnificent breed, and nothing, not even their intellectual achievements, proves more triumphantly that they were so than the fact that they contrived to get all their disagreeable work done for them by a population more than four times as numerous as themselves. But if from any cause—say the existence of scruples about the rights of humanity—they had had to do all this work themselves, it is plain they could not have developed into the race they became. There could have been no schools of philosophy, no critical audiences, no cultivated drama. Socrates would have been an able stonemason, and Plato would have been in request, not for his vast intellect, but for his broad shoulders. They were in fact "an upper 90,000," an aristocracy, strictly speaking, and in a comparison of average ability can only be compared properly with the corresponding section—that is to say, the upper fifth—of a mixed community like ours; otherwise the working slave population must be thrown in, and its weight allowed to depress the average. Even then figures will be considerably in the favour of the Athenians and against us, but the difference will be very far from being that prodigious one which has staggered most of Mr. Galton's readers. The injustice of the comparison, as Mr. Galton makes it, is shown in his own argument based upon the quick intelligence and high culture of the Athenians, "before whom," he says, "literary works were recited, and works of art exhibited of a far more severe character than could possibly be appreciated by the average of our race, the calibre of whose intellect is easily gauged by a glance at the contents of a railway bookstall." If the tastes of the lower four-fifths of our population were not consulted, what would become of all that class of literature which compels Mr. Galton to take so low a view of the intellect of our race?

Pall Mall

Law Board has pointed out to these gentlemen in the letter which caused so much angry feeling:—

The Board refer particularly to the items "for fixtures and fittings," "drainage, water tanks," &c., in the cases of both asylums; to the items for "contingencies" in the case of the asylum at Leavesden; and to the items for "well and machinery" and "farm buildings" at Caterham. The estimate for "well and machinery" at Caterham has been increased from 3,250*l.* to 6,150*l.*, and that for "farm buildings" from 1,500*l.* to 2,520*l.*, in both instances nearly double the original amount; while the estimate for the gas-house at Leavesden has been increased from 1,000*l.* to 2,900*l.*, or nearly 200 per cent.

At a time when poor-rate expenditure has largely increased and is still largely increasing throughout London, we should be thankful that Whitehall interposes to check lavish expenditure. These managers, in spite of the peculiarity of their election, certainly do not escape what, for lack of a better term, we must call the parochial or select vestry taint. They take pleasure in official parade and junketing at other people's expense. They make, however, [no] effort to conceal their doings. They may not be so coarse in their proceedings as some local functionaries who hold their feastings and fightings at Abbey Mills; but pecuniarily certain of their actions are as little defensible. When it was incumbent upon the managers to save every penny they could of the ratepayers' money, they squandered nearly 90*l.* on the needless and foolish parade of laying the first stone of the Leavesden Asylum. We have taken the following items of this job from the managers' printed minutes—comment beyond this is needless:—

	£	s.	d.
London and North-Western Railway Company, for special train to and from Watford	35	19	0
Wilfin, J., conveyance from Watford to the site	17	15	0
Morgan, B., ditto, ditto	17	5	0
Brush and fees, trowel, mallet, level, &c.	10	10	0
Lithographed plans and sundries	8	4	0

We have not seen the account for the similar proceedings at Caterham.

M. Louis Blanc, referring to an Occasional Note printed on Monday, sends us the following letter for publication:—

Sir,—I thank you for having thought and said that I knew nothing of the illness of Mr. Bright when I sent the letter of which you have given but a short passage. Had then the sad news been published, I would certainly have refrained from writing the letter alluded to, although

PARLIAMENTARY SUMMARY.

In the House of Lords last night, Lord Kinnaird introduced a bill to carry out the recommendations of the Royal Commission on the mining population. Lord Lyveden having proposed joint Committees of the two Houses of Parliament for private business, Lord Redesdale defended the separate system now in force. In reply to Lord Beauchamp, Lord Granville said that the Judicature and Naturalization bills would soon supply their lordships with interesting occupation. Lords Salisbury, Grey, Carnarvon, and Redesdale urged the necessity of a more equal distribution of measures between the two Houses. Lord Kimberley and the Lord Chancellor defended the Government. Lord Kinnaird and Lord Lyveden also made some remarks.

The public business of the House of Commons was delayed beyond the usual hour of commencement by a discussion and division upon the Glasgow Municipal Extension and Improvement Bill, which was ultimately thrown out by 140 votes against 102.

Mr. Plunket, member for Dublin University, and Colonel Beresford, member for Southwark, took the oaths and their seats. A new writ was ordered for Nottingham. Mr. W. H. Smith gave notice that on the 15th of March he should call attention to the state of pauperism in the metropolis, and to the operation of the Poor Law upon private charity. Mr. Monsell said the Red River difficulty was in a fair way of disappearing. Mr. Goschen intimated the intention of the Government to propose that metallic mines shall be rated for poor and other local rates. Mr. Shaw Lefevre said he intended in a few days to make a statement as to metropolitan tramways. Professor Fawcett announced that he should postpone the introduction of his Parliamentary Expenses Bill till after the issue of the report of the Select Committee appointed to consider the subject. The Marquis of Hartington was obliged to confess that the expectations expressed by him the other day when speaking on the subject of the telegraphs had not been realized. The derangement of the system was, however, entirely owing to circumstances beyond the control of the department, and he trusted that with the coming of the thaw and the fall of rain the wires would return to their ordinary working condition. Mr. Childers brought up the Navy Estimates, and Mr. Cardwell announced that the Army Estimates would be moved on March 3.

At twenty minutes to six Mr. Forster rose in a crowded House to move for leave to introduce a bill to provide for Public Elementary Education in England and Wales. The right hon. gentleman, after some prefatory remarks upon the existing system of education and the necessity for reform, said the nation demanded from the Government that it should do two things: Firstly, that it should cover the country with good schools; and secondly, that it should get parents to send their children to those schools. In performing this task there were three conditions by which the Government had to abide: it must not forget its duty to the parents, it must not forget its duty to the taxpayers, and it must be careful not to destroy while attempting to build up—it must not break up the old schools while establishing new ones. The object of the Government bill might be stated to be, that it sought to crown and complete the present voluntary system of education securing the aid of the parents, and welcoming the assistance afforded by benevolent men who had devoted their fortunes to the extension of the means of education. The leading principles of the bill were that it should be legally enacted that efficient secular education should be provided throughout the kingdom; and that State provision should be made for the support of schools if and where such provision should be required, and not otherwise. In carrying out these objects the country would be organized into "school districts." In boroughs these districts would coincide with the municipal boundaries, and in the country with the boundaries of the parishes. In the metropolis the school districts of the workhouses, and, where they did not exist, the boundaries of the vestries, would determine the new school districts. The Government would ask for power to inquire into the number of schools existing in a given district, and the number of children requiring education therein; and if it appeared that in any district the elementary education supplied was suitable and sufficient, that district would be left undisturbed. The Public Elementary Schools, to be founded by the bill, would be subject to three regulations: (1.) It must be shown that they possess a certain amount of efficiency in education before a Government grant will be made. (2.) They will be required to submit to the examination of an undenominational inspector. (3.) A "conscience clause" will be attached as a condition of the receipt of Government assistance. The management of the schools would be vested in Boards, to be locally elected. In boroughs the School Boards would be elected by the town council, and in country districts by the vestries. The school fees would not be abolished, such a procedure being, in the right hon. gentleman's opinion, not only unnecessary but injurious. Power would, however, be given to the School Boards to establish free schools in localities where the poverty of the inhabitants rendered them desirable, and in the paying-schools the Boards would also have the power to grant free tickets to children whose parents were unable to pay the fees, care being taken that no stigma accompanied their possession. The bill proposed to supplement the funds necessary to carry out the scheme by local rates, and by grants from the public treasury, in the estimated proportion of one-third from each source, the remaining third coming from the school fees. If the charge upon the poor-rate under this head should exceed in any parish threepence in the pound, a special additional grant would be made to such parish from the public funds. With respect to the religious aspect of the education to be imparted in the public schools the bill made no order, neither saying that religion should be excluded from the course of lessons, nor that it should be taught in any particular way. The Government would say to the School Boards, "See that these children receive a sound education," and it relies upon the public which elects the Boards to guard against their children receiving what the right hon. gentleman called "an irreligious education." The bill was based upon the principle of direct compulsion as regarded the attendance of children, and to effect this, power would be given to each School Board to frame bye-laws compelling the attendance at school of all children from five to twelve years of age within their district, under penalty of a fine not exceeding five shillings. It would be seen that the entire control of the schools was placed in the hands of the local boards, but a clause in the bill gave to Government the right to step in and do the work of the Boards, if left undone or done unwisely, and to order another election. The purpose which the Government had kept before them in framing their measure was to bring elementary education not only to every English home but to every English child that had no home, and the right hon. gentleman concluded by expressing a sanguine hope that the bill would in its main provisions speedily pass into law.

A discussion ensued, in which Mr. W. Cowper, Viscount Sandon, Lord Robert Montagu, Mr. Mundella, Mr. Melly, Mr. Fawcett, Sir John Pakington, Mr. Wheelhouse, Mr. Hibbert, Mr. Walter, Sir Stafford Northcote, and Mr. Whalley took part, and Mr. Forster having briefly replied leave was given to bring in the bill. Mr. Forster said he proposed to take the second reading on the 14th of March.

Mr. Dodds obtained the appointment of a Select Committee to inquire into the present state of the laws affecting the salmon fisheries of England and Wales, and

The House adjourned at ten minutes past ten.

f.131

42 Rutland Gate S.W.
Feb 19. 1870

Sir

I am truly obliged for your just critique on my remarks about the Athenian race, for I had a strong misgiving that my results were too high. If your amendment were accepted pure and simple — but that again wd. I think

be going too far in the opposite direction, the revised calculation would be as follows.—

90 000 free
40.000 alien
400.000 slaves
530.000 total = 6 × 90.000 about.

I shew on the 90.000 hypothesis that ~~47.500 would~~ have ~~survived the age of 26 in one century & 45.~~ 1 in 4.822 would have become illustrious

f. 14

of those who survived the age of 22 and 1 in 3.214 of those who survived 50

~~Dividing~~ multiplying these figures by 11 we have in the 530.000 [illegible]

the ratios of 1 in 28900 & 1 in ~~[illegible]~~ 19.280

Now in page 34 of my book the class F is 1 in 4.300
G ~~is~~ 1 in 79.000

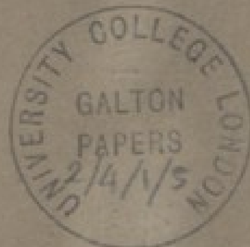
therefore their $\frac{F+G}{2}$ would rank above our G & equal to a close upon our H. making the difference $1\frac{1}{2}$ & not 2 grades.

F. 15

PRICE TWO SHILLINGS AND SIXPENCE.

XXIX. April, 1870.

THE THEOLOGICAL REVIEW:



A JOURNAL OF RELIGIOUS THOUGHT AND LIFE.

"Our fathers worshipped in this mountain; and ye say, that in Jerusalem is the place where men ought to worship." * * *

"The hour cometh, when ye shall neither in this mountain, nor yet at Jerusalem, worship the Father. * * * But the hour cometh, and now is, when the true worshippers shall worship the Father in spirit and in truth: for the Father seeketh such to worship Him. God is a Spirit: and they that worship Him must worship Him in spirit and in truth." (John iv. 20, 21, 23, 24.)

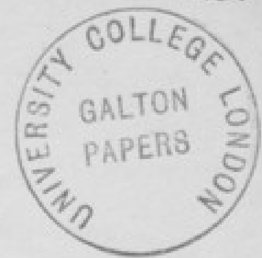
WILLIAMS AND NORGATE,
14, HENRIETTA STREET, COVENT GARDEN, LONDON;
AND 20, SOUTH FREDERICK STREET, EDINBURGH.

JOHNSON & RAWSON, 89, MARKET STREET, MANCHESTER.

PUBLISHED QUARTERLY.

The Theological Review. April, 1870.

F.16 r



IV.—HEREDITARY PIETY.

Hereditary Genius. An Inquiry into its Laws and Consequences. By Francis Galton, F.R.S. 1 vol. 8vo. Pp. 390. Macmillan. 1869.

Psychologie Naturelle. Etude sur les Facultés Intellectuelles et Morales. Par Prosper Despine. 3 vols. 8vo. Paris: F. Savy. 1868.

THE history of Public Opinion during the last half century may be not inaptly compared to that of a well-fed, steady-going old roadster, long cherished by a respectable elderly squire, but unluckily transferred at his demise to his wild young heir. Accustomed to all the neighbouring highways, and trained to jog along them at five miles an hour, the poor beast suddenly found itself lashed by "the discipline of facts" and sundry new and cruel spurs, to get over the ground at double its wonted pace, and (what proved harder still) to leave the beaten tracks altogether and cut across country, over walls and hedges which it never so much as peeped over before. Under this altered régime it would appear that Public Opinion at first behaved with the restiveness which was to be expected. On some occasions he stood stock-still like a donkey, with his feet stretched out, refusing to budge an inch; and anon he bolted and shied and took buck leaps into the air, rather than go the way which stern destiny ordained. But as time went on, such resistance naturally grew less violent. The plungings and rearings subsided by degrees, and anybody who now pays attention to the animal will probably be only led to observe that he is a little hard in the mouth and apt to refuse his fences till he has been brought up to them two or three times. In his equine way he finds each new discovery first "false" and then "against religion;" but at last he always makes a spring over it and knocks off the top brick with his hind feet: "Everybody knew it before!"

Had not this process of accustoming Public Opinion to a sharp pace and difficult leaps been going on for some time, it is to be believed that Mr. Galton's book would have produced considerably more dismay and called forth more virtuous indignation than under present training has actually greeted it. We have had to modify our ideas of all things

f.16v

in heaven and earth so fast, that another shock even to our conceptions of the nature of our own individual minds and faculties, is not so terrible as it would once have been. We used first to think (or our fathers and grandfathers thought for us) that each of us, so far as our mental and moral parts were concerned, were wholly fresh, isolated specimens of creative Power, "trailing clouds of glory," straight out of heaven. Then came the generation which believed in the omnipotence of education. Its creed was, that you had only to "catch your hare" or your child, and were he or she born bright or dull-witted, the offspring of two drunken tramps, or of a philosopher married to a poetess, it was all the same. It depended only on the care with which you trained it and crammed it with "useful knowledge" to make it a Cato and a Plato rolled into one. Grapes were to be had off thorns and figs off thistles with the utmost facility in the forcing-houses of Edgeworthian schools. It had, of course, been a hard matter to bring Public Opinion up to this point. The worthy old beast recalcitrated long, and when London University reared its head, the trophy of the First Educational Crusade, all the waggery left in England was thought to be displayed by dubbing it "Stinkomalee." But university in town and schools all over the country were overleaped at last, and nobody for years afterwards so much as whispered a doubt that the Three Learned R's were sign-posts on the high road to Utopia.

Then arose the brothers Combe to put in some wise words about physical, over and above mental, education. And somehow talking of physical education led to discussing hereditary physical qualities, and the "Constitution of Man" was admitted to be influenced in a certain measure by the heritage of his bodily organization. Children born of diseased and vicious parents, the philosopher insisted, ran a double chance of being themselves diseased and vicious, or even idiotic; and sound conditions in father, mother and nurse, had much to do, he thought, with similar good conditions in their offspring and nursling. Strange to remember! Ideas obvious and undeniable, as these appear to us, seemed nothing short of revolutionary when they first were published; and Public Opinion put back its ears and plunged and snorted at a terrible rate, ere, as usual, it went

f.17r

over them and "knew it all before." Nevertheless the inalienable right of diseased, deformed and semi-idiotic married people to bring as many miserable children into the world as they please, is yet an article of national faith, which to question is the most direful of all heresies.

But these three doctrines of mental and moral development,—the doctrines, namely, 1st, that we came straight down from heaven; 2nd, that we could be educated into anything; 3rd, that some of our physical peculiarities might be traced to inheritance,—were all three kept pretty clear of meddlings with the Religious part of man. Experience, no doubt, shewed sufficiently decisively that Piety was not a thing to be made to order, and that (at all events under the existing dispensation) there was no bespeaking little Samuels. The mysterious proclivity of children intended for such a vocation to turn out pickles, luckily coincided with—or possibly had a share in originating—the Calvinistic views of Arbitrary Election; while even the Arminians of those days would have vehemently repudiated either the notion, that a man might inherit a pious disposition just as well as a tendency to the gout, or that he would be likely to find the true route to Paradise among other items of Useful Knowledge in the Penny Magazine.

Now it seems, in this year of grace 1870, we are trotting up to another fence, videlicet, the doctrine that *all* man's faculties and qualities, physical, mental, moral and religious also, have a certain given relation to the conditions of his birth. The hereditary element in him,—that element of which we have hitherto entertained the vaguest ideas, admitting it in his features and diseases, and ignoring it in his genius and his passions; recognizing it in noble races as a source of pride, and forgetting it as the extenuation of the faults of degraded ones,—this mysterious element must, we are told, henceforth challenge a place in all our calculations. We must learn to trace it equally in every department of our nature; and no analysis of character can be held valid which has not weighed it with such accuracy as may be attainable. Our gauge of moral responsibility must make large allowance for the good or evil tendencies inherited by saint or sinner, and our whole theory of the meaning and scope of Education must rise from the crude delusion that it is in our power wholly to transform any individual child, to

f. 17v

embrace the vaster but remoter possibilities of gradually training successive generations into higher intelligence and more complete self-control, till the tendencies towards brute vice grow weaker and expire, and "the heir of all the ages" shall be born with only healthful instincts and lofty aspirations.

As always happens when a new truth is to be discovered, there have been foreshadowings of this doctrine for some years back. The hereditary qualities of Races of men have occupied large room in our discussions. The awful phenomena of inherited criminal propensities have interested not only physicians (like the writer of the second book at the head of our paper), but philosophic novelists like the author of "Elsie Venner." Under the enormous impetus given to all speculations concerning descent by Mr. Darwin, some applications of the doctrine of development to the mind as well as body of man became inevitable, and a most remarkable article in Fraser's Magazine, Oct. 1868, brought to light a variety of unobserved facts regarding the "Failure of Natural Selection in the Case of Man," due to the special tendencies of our civilization. Mr. Galton himself, five or six years ago, published in Macmillan's Magazine the results of his preliminary inquiries as to inherited ability in the legal profession; and Professor Tyndal perhaps gave the most remarkable hint of all, by ascribing the "baby-love" of women to the "set of the molecules of the brain" through a thousand generations of mothers exercised in the same functions.

But the work which has finally afforded fixed ground to these floating speculations, and, in the humble judgment of the present writer, inaugurated a new science with a great future before it, is Mr. Galton's "Essay on Hereditary Genius." The few errors of detail into which the author has fallen in the wide and untrodden field he has attempted to map out, and his easily explicable tendency to give undue weight to disputable indications, and to treat a man's attainment of high office as equivalent to proof of his fitness for it,—these weak points, on which the reviewers have fastened with their usual bull-dog tenacity, cannot eventually influence the acceptance of the immense mass of evidence adduced to prove the main theses of the work, or bar our admiration of its great originality. I do not propose in the ensuing pages to give a general notice of the work, or to mark

F.18r

either all the principles which I conceive Mr. Galton has established, nor those others on which I should venture to differ from him. His main doctrine he has, I believe, demonstrated with mathematical certainty, viz., that all mental faculties, from the most ordinary to the highest and apparently most erratic forms of genius, the various gifts of the statesman, soldier, artist and man of letters, are distributed according to conditions among which inheritance by descent of blood occupies the foremost place; and that there is no such thing in the order of nature as a mighty genius who should be an intellectual Melchisedek.

The further deductions which Mr. Galton draws, appear to me curious and suggestive in the extreme; as, for example, the calculation of the proportion now obtaining in Europe of Eminent Men to the general population; and, again, of the far rarer Illustrious Men to those of ordinary eminence. Based on this calculation, the number of both illustrious and eminent men who flourished during the age of Pericles among the 135,000 free citizens of Attica during the age of Pericles, is so nearly miraculous, that we find it hard to picture such an intellectual feast as life must then have offered. Society at Athens in those days must have surpassed that of the choicest circles of Paris and London now, as these are superior to the ale-house gossipings of George Eliot's rustics. *That* populace for whose eye Phidias chiselled, *those* play-goers for whose taste Sophocles and Aristophanes provided entertainment, *that* "jeunesse dorée" whose daily lounge involved an argument with Socrates—what were they all? What rain of heaven had watered the human tree when it bore such fruit in such profusion? And what hope may remain that it will ever bring them forth in such clusters once more?

Again, a flood of light is poured on the degeneracy of mediæval Europe by Mr. Galton's observations concerning the celibacy of the clergy and the monastic orders. The moment when, as Mr. Lecky shews, chastity (understood to mean celibacy) was elevated into the sublimest of Christian virtues, that moment the chance that any man should perpetuate his race became calculable in the inverse ratio of his piety and goodness. Archbishop Whately long ago exposed the absurdity of the common boast of Catholics concerning the learning and virtue hidden in the monasteries

F. 18v

during the Dark Ages. It would be equally reasonable to take the lamps and candles out of every room in a house and deposit them in the coal-cellar, and then call the passers-by to remark how gloomy were the library and drawing-room, how beautifully illuminated the coal-hole! But Mr. Galton points out that the evil of the ascetic system was immeasurably wider and more enduring in its results even than the subtraction for generation after generation of the brightest minds and gentlest hearts from the world which so grievously needed them. According to the laws of hereditary descent, it was the whole future human race which was being cruelly spoiled by the process of its fairest hopes, its best chances of enjoying the services of genius and of true saintship. Some of those who read these pages may remember in the first Great Exhibition a set of samples of what was called "Pedigree Wheat." The gigantic ears, loaded with double-sized seeds, were simply the result of ten years' successive selection of the finest ears, and again the finest in each crop. The process which Romanism effected for the human race was precisely and accurately the converse of that by which this Pedigree Wheat was obtained. It simply *cut off* each stem which rose above the average in mental or moral gifts. The moment a man or a woman shewed signs of being something better than a clod, a little more disposed for learning, a little more gentle-natured, more pious or more charitable, instantly he or she was induced to take the vow never to become a parent; and only by the infraction of such vows was there a chance for the world of an heir to his or her virtues. The best-born man among us now living, if he could trace out the million or so of his ancestors contemporary twenty generations ago, would hardly find among them a single person mentally distinguished in any way. We are all the descendants of the caterans and hunters, the serfs and boors of a thousand years. The better and greater men born in the same ages hid their light under a bushel while they lived, and took care that it should not be rekindled after their death. When the Reformation came, the case was even worse; for then the ablest, the bravest and the truest-hearted, were picked out for slaughter. The human tares were left to flourish and reproduce their kind abundantly, but the wheat was gathered in bundles to be burnt. To

f.19r

this hour France feels the loss of Huguenot blood (so strangely vigorous wherever it has been scattered!) and Spain halts for ever under the paralysis of half her motor nerves, cut off by the Inquisition.

Besides these discussions, Mr. Galton's book is full of suggestive and original ideas concerning the results of marriages with heiresses, — concerning the influence of able mothers on their sons,—concerning the choice of wives by gifted men, — and, finally, concerning the application of Darwin's hypothesis of Pangenesis to human inheritance of special qualities. Of these topics nothing can here be said, though against some of them I would fain enter my expression of dissent. There remains not more than space enough to discuss the branch of Mr. Galton's subject which properly falls under the notice of a Theological Review, viz., the statistics he has collected concerning Divines.

It was not a little mischievous of Mr. Galton to preface his investigations about the families of pious men, by quoting Psalms cxxviii. 3, cxiii. 9, xxv. 13, and then innocently asking whether the wives of Christian divines have any special resemblance to "fruitful vines," or their children to "olive-branches;" and whether, on the whole, their seed does "inherit the land" in any noticeable manner. Certainly, on the one hand, almost every one of us would be ready to assure the inquirer that, to the best of our persuasion, curates with small salaries have larger families than men of any other profession; and that "Mrs. Quiverfull" was, and could only be, according to the natural fitness of things, a poor clergyman's wife. But then, per contra, our author is evidently unprepared to admit that the unbeneficed clergy of the National Church have a monopoly of piety, or that we ought to look among them especially for the fruits of the first part of the patriarchal benediction; while it is manifest that the second blessing, namely, the "inheriting of the land," falls much more richly on the profane generation of the squirearchy.

Mr. Galton says he finds two conflicting theories afloat on this matter. The first is, that there is a special good providence for the children of the godly. The second is, that the sons of religious persons mostly turn out exceptionally ill. He proceeds to inquire carefully what light statistics can throw on these views, and whether both of

f.19v

them must not yield to the ordinary law of heredity as ruling in other spheres of human activity.

It was not an easy matter to settle at starting what qualification should entitle a man to be reckoned among the eminently pious. Obviously Roman Catholic saints were out of the running, owing to the fatal law of celibacy, whereby fruitful vines and numerous olive-branches are allowed only to decorate the houses of persons who followed not "counsels of perfection." Protestants, on the other hand, have rarely been able to see all the merits of men of different opinions from their own. The name of Laud has not a sweet savour in Evangelical nostrils; while the Ritualist Dr. Littledale talks unconcernedly of those "scoundrels," the martyrs Hooper and Latimer. Nevertheless, Mr. Galton has happily got over his difficulty through an excellent collection—"Middleton's Biographia Evangelica," published in 4 vols. in 1786, and containing 196 picked lives of Protestant saints, from the Reformation downwards. Our author subjects these biographies to sharp analysis, and the following are the conclusions which he deduces from them.

These 196 Protestant saints were no canting humbugs. They were for the greater part men of exceedingly noble characters. Twenty-two of them were martyrs. They had considerable intellectual gifts. None of them are reported to have had sinful parents; and out of the last 100 (whose relations alone are traceable), 41 had pious fathers or mothers. Their social condition was of every rank, from the highest to the lowest. Only one-half were married men, and of these the wives were mostly very pious. The number of their children was a trifle below the average. No families of importance in England are traceable to divines as founders, except those of Lord Sandys and of the Hookers, the famous botanists, who are the lineal descendants of the author of the *Ecclesiastical Polity*. As regards health, the constitution of most of the divines was remarkably bad. Sickly lads are apt to be more studious than robust ones, and the weakly students who arrived at manhood chiefly recruited the band of divines. Among these semi-invalids were Calvin, Melancthon, George Herbert, Baxter and Philip Henry. Reading the lives of eminent lawyers and statesmen, one is struck by the number of them who have

f. 20r

had constitutions of iron; but out of all Middleton's 196 divines, he only speaks of 12 or 13 as vigorous. Out of these, 5 or 6 were wild in their youth and reformed in later years; while only 3 or 4 of the other divines were ever addicted to dissipated habits. Seventeen out of the 196 were inter-related, and 8 more had other pious connections. The influence of inheritance of character through the female line is much greater in the case of divines than in that of any other eminent men; an influence Mr. Galton attributes to the utility, in their case, of a "blind conviction which can best be obtained through maternal teaching in childhood."

These results, as Mr. Galton would no doubt readily admit, might be liable to considerable modification, could we extend our field of operations over double or treble the number of instances of piety, and especially if we could include types of piety from other creeds and a greater variety of nations. Taken as it is, however, as the outcome of an inquiry based on freely gathered specimens of Protestant religious eminence, it appears to convey one of the most curious morals ever presented by an historical investigation. A true Christian has been often defined as "the highest kind of man," and Mr. Galton himself avows that these subjects of his anatomy were "exceedingly noble characters." And yet he is forced to pronounce with equal decision from the evidence before him, that they were mostly a tribe of valetudinarians; that there must exist "a correlation between an unusually devout disposition and a weak constitution;" that "a gently complaining and fatigued spirit is that in which Evangelical divines are apt to pass their days;" and, finally, that "we are compelled to conclude that robustness of constitution is antagonistic in a very marked degree to an extremely pious disposition"!

There are no doubt still surviving in the world a good many people who will find in these conclusions of Mr. Galton's nothing to shock their conceptions of what ought to be the causes, tenor and temper of a religious life. There are those who still repeat, with Cowper, that this world is, and ought to be, a Vale of Tears, and that a very proper way to view our position therein is to liken ourselves to "crowded forest trees, marked to fall." To such persons, no doubt, it is natural to pass through the varied joys and

F. 20 v

interests of youth, manhood and old age, plaintively observing to all whom it may concern, that they

> Drag the dull remains of life
> Along the tiresome road.

But these worthy people have certainly been in a minority for the last twenty years, since the Psalm of Life took definitively the place of the lugubrious "Stanzas subjoined to the Bills of Mortality." And to us in our day it is undoubtedly somewhat of a blow to be told that Religion, instead of being (as the old Hebrews believed) the correlative of health and cheerfulness and length of years, is, on the contrary, near akin to disease; and that he among men whom the Creator has blessed with the soundest body and coolest brain, is, by some fiendish fatality, the least likely of all to give his heart to God or devote his manly strength to His cause. The Glorious Company of the Apostles is reduced to a band of invalids, and the Noble Army of Martyrs is all on the sick list!

Is this true? Shall we sit down quietly under this dictum of Mr. Galton's, and agree for the future to consider health and piety as mutually antagonistic? For my own part, I must confess that if facts really drove me to such a conclusion, I should be inclined to say, with the French philosopher contradicted in his theories, "Eh bien, messieurs! tant pis pour les faits!" No statistics should lash my (private) opinion over that six-barred gate. But are we really driven to such straits at all? It seems to me that Mr. Galton's own words give us the key to the whole mystery, and to a very important truth beside. He tells us at starting that though Middleton assures the reader that no bigoted partiality rules his selection of divines, yet that "it is easy to see his leaning is strongly towards the Calvinists." His 196 picked men are chosen (honestly enough, no doubt) from the churches in which more or less closely the Evangelical type of piety was adhered to as the standard of holiness. No Unitarian or Latitudinarian, no Deist nor Freethinker, had a chance of admission into his lists. We have thus 196 specimens of the plants reared in the peculiar hot-beds of the dominant Protestantism of the seventeenth and eighteenth centuries. Let us take them, then, by all means, and reason on them as excellent exam-

f. 21 r

ples, 1st, of the persons on whom that creed was calculated to fasten; and, 2ndly, of what really fine characters it was able to form. But do not let us be misled for a moment into the use of generalizations implying that it is "piety" *pur et simple,* piety as it must always be, or always ought to be, which is intrinsically "unsuited to a robust constitution," and specially calculated to take root in a sickly one. Do not let us rest content with the picture of "the gently complaining and fatigued spirit," as if it were the normal spirit of any other pious folk than those of the orthodox persuasion.

And, again, does not this remarkable fact discovered by Mr. Galton, namely, the physical sickliness attendant on the prevalent forms of Christian piety, let in some light on the fact which has been so often noticed, but so little explained, namely, the lack of manliness among clergymen, bishops and "professors" at large? If the phenomenon were not so familiar, it would surely be the most astonishing in the world, that the preachers of religion and morality should be as a body less straightforward, less simple, less brave, than other men. When a clergyman twaddles and cants and equivocates; or when one Bishop "chalks up Free Thought and runs away;" or another talks blasphemously of "The Voice" guiding him to exchange a poor and provincial See for a rich one with a good town-house; or, finally, when "eminent saints" prove dishonest bankers,—how is it that we do not all wring our hands and cry that the heavens are falling? Why do we only nod our heads lugubriously and observe, "What a different sort of man is the Rev. A. B.'s brother, Captain C. D., of the Navy, or Colonel E. F., of the —th Dragoons!" or, "How the episcopal apron transforms a man into an old woman!" or, "How very dangerous it is to have dealings with the saints!"*

Things like these ought to strike us dumb with amazement and horror, had not experience hardened us to a vague anticipation of a correlation between an extraordinary display of Christian sentiment and a proportionate lack of the element of manly honesty and courage. Without formu-

* We have heard an authentic story of a clergyman who, being present at a prayer-meeting at which Sir John Dean Paul engaged in devotion, immediately afterwards rushed up to town and drew all his money out of the too pious banker's hands!

F. 21v

larizing our ideas on the matter, there are few of us who, if we were attacked by robbers in a house with a saintly clergyman upstairs and a profane man of the world below, would not rush first to seek our defender in the lower story. Again, in matters of veracity, to whose recommendation of a servant or a teacher do we attach most value—that of the pious vicar of the parish, or that of the fox-hunting squire? Not to pursue these illustrations further, I think my position will be hardly gainsaid if I assert that, while the theological virtues, faith, hope, charity, purity and resignation, flourish abundantly in the vineyard of the Church, the merely moral virtues, courage, fortitude, honesty, generosity and veracity, are found to grow more vigorously elsewhere. It is not of course maintained that either side of the wall has a monopoly of either class of virtues; but that the priestly or evangelical character has a tendency to form a distinct type of its own; and that in that type there is a preponderance of the more fragile and feeble virtues, and a corresponding deficiency in those which are healthy, robust and masculine. "Muscular Christianity" is a modern innovation, a hazardous and not over-successful attempt to combine physical vigour and spiritual devotion; and the very convulsiveness of the efforts of its apostles to achieve such a harmony, affords the best possible proof of how widely apart to all our apprehensions had previously been "Muscularity" and "Christianity."

But all these remarks apply to what has hitherto passed muster as the received type of piety, and not by any means to Piety in the abstract apart from its orthodox colouring. The unmanliness belongs wholly to the mould, and not to the thing moulded. No man has ever yet felt himself, or been felt by others to be, less manly because in public or in private he has professed his faith in God and his allegiance towards Him. The noblest line perhaps in all French poetry is that which Racine puts into the mouth of the Jewish High-priest,

"Je crains Dieu, cher Abner, et n'ai point d'autre crainte."

It must be admitted that the same cannot be said of the profession of belief in sundry doctrines of orthodoxy. The urgency of a man's dread of hell-fire, his anxiety to obtain the benefits of the Atonement, and his undisguised rejoicing

f.221

that "Christ his Passover is slain for him," are none of them sentiments to which we attach the character of manliness or generosity.

Perhaps there is no point on which the religion of the future is so certain to differ from that of the past, as in its comparative healthfulness of spirit. And just as a sickly creed, full of dreadful threats and mystic ways of expiation, appealed to minds more or less morbidly constituted, so it is to be believed that a thoroughly healthy and manly creed will harmonize no less distinctly with natures happy, healthful and normally developed.

From this branch of the subject we pass to a most curious and original analysis which Mr. Galton has made of what he considers the typical religious character. It must be premised that in another part of his book he has broached the theory, that the sense of incompleteness and imperfection which theologians define to be the sense of Original Sin, is probably only our vague sense that we are as yet not thoroughly trained to the conditions of civilized life in which we find ourselves, and that there yet remains in us too much of the wild beast, or at least of the hunter and the nomad, to accommodate ourselves perfectly with the polished forms of life in our age and country. "The sense of original sin," he says,* "would shew, according to my theory, not that man was fallen from a high estate, but that he was rising in moral culture with more rapidity than the nature of his race could follow." Generations hence, when civilization has thoroughly done its work, and the instincts of sudden passion and unreasoning selfishness and impatience of law and rule have died out of the whole human family, then we may expect the vague sense of imperfection and guilt to die out too. We are, if I may venture to propose the simile to Mr. Galton, at the present day much in the condition of that unhappy bird, the Apteryx. Through long ages of gradual disuse of flying, our wings have grown smaller and weaker, so that if we desired to return to the habits of our remote progenitors, we should infallibly come to the ground. But the vestiges of the pinions are still there, more or less hidden under our plumage, and so long as they are to be felt, we cannot help

* P. 350.

f. 22v

flapping them sometimes and pining for a flight. The discovery that we can neither be happy flying nor walking, barbarous or civilized, constitutes the grand discontent of life. The sense that we are always inclined to make flaps and flights and fall on our beaks in the dust, is the natural element in the sense of Original Sin.

On this very singular idea Mr. Galton evidently proceeds, in the part of his book under present consideration, to define what he deems to be the typical Religious Character. He holds that its chief feature is its *conscious moral instability.* It is the conjunction of warm affections and high aspirations with frequent failures and downfalls, which makes a man alike sensible of his own frailty and inclined to rely on the serene Strength which he believes rules above him. The religious man is "liable to extremes; now swinging forwards into regions of enthusiasm, now backwards into those of sensuality and selfishness." David, in fact, the David who both slew Uriah and wrote the penitential psalms, is the eternal type of the godly man; and it is much more easy to find Davids among semi-civilized Judæan shepherds or Negroes or Celts, than among long civilized races such as the Chinese.

With this religious type Mr. Galton contrasts the ideal Sceptic, and concludes that the differences of character which, in the one case, make a man happy in the belief in a Divine Guide and Father, and, in the other, content in a mental state tantamount to Atheism, must needs lie in this, that while the Religious man is conscious of his infirmity of will and instability of resolution, insomuch that he needs the thought of God for his support,—the Sceptic, on the contrary, is sufficiently sure of himself and confident in his own self-guidance to feel comparatively no such need for external aid, and to be able without pain to stifle any instinctive longings for a Divine Protector which may arise in his heart. In other words, as Religion had been previously found to be correlated with a feeble physical constitution, so here it is identified with a moral constitution feverish, vacillating and incapable of self-reliance. The Sceptic, on the contrary, is no longer to be looked on, as we had pictured him, as a man in whom the moral sense never rises to the spring-tide where its waves break at the feet of God. He is the exalted being whose whole moral and

F.23r

intellectual nature is in such perfect balance and harmony, that he can say with Heine, "I am no longer a child. I do not need any more a Heavenly Father."

These views, which Mr. Galton has by no means illustrated in the above manner, but which I think I do him no injustice in so translating, are, in my humble judgment, among the most original and striking of any of the theories propounded on these subjects for many a day. That there is a considerable element of truth in them, I must heartily acknowledge, albeit I would read it in a somewhat different sense from Mr. Galton. The impulsive temperament is beyond question by far the most genuinely religious temperament. The calm, cold, prudential nature, when it adopts religion, does so as an additional precaution of prudence, and is "other-worldly" neither more nor less than it is worldly. Real, spontaneous, self-forgetful religion, springs and flourishes in the heart which is swayed by feeling, not by interest. Nay, more: the sense of Sin, which is the deepest part of all true piety is (we cannot doubt) far more vivid in natures wherein much of the wild, untamed human being still survives, which are swayed alternately by opposite motives, and are yet far from having been so disciplined and moulded in the school of the world as to be mere civilized machines. Probably it has happened to all of us at some time or other to wish that we could see some self-satisfied paragon of steadiness and respectability fall for once into some disgraceful fault, get drunk, or swear, or do something which should shake him out of his self-conceit, and give him a chance to learn that Religion and Pharisaism are not convertible terms. Many of us also must have watched the deplorable delusion of some originally good and always well-balanced character, in which, as there seems no need for self-restraint, no self-restraint is ever tried, and amiability lapses into self-indulgence, and self-indulgence into selfishness, and selfishness into hypocrisy and hardness of heart.

On the other hand, the permanent Sceptic is probably equally fairly described as a man who has not only made up his mind to the intellectual conclusion that there is nothing to be known about God, but also has reconciled his heart to the lack of religious supports and consolations through the help of a sturdy self-reliance. Either he is a

F.23v

sinner without any particular shame or hatred for his sin; or, as oftener happens, he is of so passionless a temperament, so prudent and well-balanced a constitution, that he recognizes few sins to repent of in the past, and knows that no serious temptation is likely to overmaster him in future. In every case, the double sense of self-abasement and self-mistrust are absent. He has no need to be reconciled with himself, so he feels no need of being reconciled with God. He walks firmly along a certain broad and beaten path of ordinary honesty, justice and sobriety, without toiling up celestial heights in the pursuit of love and faith and purity; and for his own road, and so far as he means to travel, he calls for no angels to bear him on their wings.

Lastly, it is easy to verify the fact, that these temperaments correspond in their main outlines to the races and sexes in which religion and scepticism are each most frequently developed. The impulsive races of mankind, the Southern nations of Europe, are more inclined to religion and less to incredulity than those of the North. The unstable Celt is more pious, whether he be Catholic in Ireland or Methodist in Wales, than the steady-going, law-abiding Saxon of any denomination. And, finally, women are more religious than men, while displaying at once more vacillation of the will and (probably in most cases) higher aspirations after ideal holiness and purity.

What is now to be our conclusion respecting Mr. Galton's theory of the Origin of Piety? We have seen, in the first instance, that he identifies it with a sickly physical constitution, and we ventured so far to correct this result as to substitute for Piety in general, Piety in the particular form of Evangelical Christianity. We pointed out that it was only from among Evangelical Divines that the premisses of his argument had been taken, and that there was a very strong presumption that Piety equally deep and true, but of an opposite type, would, on experience, be found to shew a no less marked affinity for those "robust constitutions" wherein the orthodox seed finds an ungenial soil.

In the present case, we have to decide whether we can admit Mr. Galton's second correlation of Piety with moral instability of purpose. In my opinion, we may rightly trace in this case a relation between all true types of Piety and such instability, provided that we interpret the insta-

F.24r

bility to consist, *not* in an unusual degree of frailty in acting up to a mediocre standard of virtue,—*not* in having merely, as he avers, a greater "amplitude of moral oscillations than other men of equal average position,"—but in a necessarily faulty and imperfect attempt to act up to a standard higher than that commonly received, and for which the man (to apply Mr. Galton's system) has not been sufficiently *bred*.

What, then, is the bearing of our admission as regards this matter? It is tantamount only to this: that the temperament which contains the noblest elements and aspires highest, even if it fall lowest, is also the nature on which the crowning glory of the love of God most often descends. Just as Longinus decides that the greatest poem is not the one which longest sustains an even flight, but the one which ever and anon soars into the highest empyrean, even so the man who *in his highest moments rises highest* is truly the greatest man. It is he who, though his nature be a very chaos of passions—a den of wild beasts, as many of the saints have spoken of their own souls—yet has in him longings and strivings and yearnings after the Holy and the Perfect; it is he who is not only naturally predisposed to piety, but worthy to know the joy of religion. Out of such stuff demi-gods are made. Out of well-ordered, prudent, self-reliant sceptics, men of the world are made, and nothing more.

It is, I apprehend, a definite and very valuable acquisition to psychology, to recognize that it is not by accident, but natural law, that characters wherein flesh and spirit do hardest battle, and Apollyon not seldom gains temporary advantage, are yet precisely those who are "bound for the Celestial City." Mr. Worldly Wiseman never descends into the Valley of Humiliation, but neither does he ever climb the Delectable Mountains nor push through the Golden Gates.

With regard to the hereditary descent of religions as well as other qualities, Mr. Galton develops his theory in the following manner. Starting on the assumption that the typical religious man is one who combines high moral gifts with instability of character, it is obvious that if one of the two elements whose *combination* makes the parent's piety is *separately* inherited by the son, an opposite result will

f29 v

appear. If the son's heritage "consist of the moral gifts without the instability, he will not feel the need of extreme piety," and may become Mr. Galton's ideal sceptic. "If he inherit great instability without morality, he may very probably disgrace his name." Only in the third contingency, namely, that of the son inheriting both the father's qualities, is there any security for his following in the parental steps.

Thus we have an explanation more or less satisfactory of the double phenomenon, that there is such a thing as hereditary piety, and that there is also an occasional (though I hardly think, a very common) tendency for the sons of a really religious man to turn out either sceptics or reprobates. So far as my judgment goes, I should say that the common disposition of children is to share in a very marked manner the emotional religious constitutions of their parents, that this is only counteracted when piety is presented to them in so repulsive a shape, as to provoke the over-lectured "little Samuels" into rebellion. There are two facts connected with such heritage which must have forced themselves on the attention of all my readers. One of them falls in with Mr. Galton's theories of heredity, but the other must needs be explained by reference to post-natal influences. The first is the tendency of strong religious feeling to pervade whole families. The second is the equally strong tendency of the different members of such religious families to adopt different creeds and types of piety from one another, insomuch that the sympathy which ought to have united them in closer bonds than other households is too often converted into a source of dissensions.

These two facts will, I think, be disputed by few readers. All of us are acquainted with families in which no vehement warmth of religion has ever shewn itself, and in which, according to Evangelical language, "conversions" never take place. Again, we all know personally a few, and by report a great many families, where for successive generations there are men and women of either saintly piety or fanatic zeal. As Hindoos would say, there are Brahmin races in which twice-born men are found, and Kshatriyas and Soodras in which the phenomenon of regeneration never occurs.

This remarkable fact may, of course, be explained doubly. There is the hereditary tendency to the religious constitu-

f.25r

tion; and there are all the thousand circumstances of youthful impression likely to bring that tendency into action. Family traditions of deeds and words, family pictures, and of course family habits of devotion, where these are maintained, are incentives of incalculable weight. It would be hard for the present writer to define how much of her own earlier feelings on such matters were due to a handful of books of the Fénélon school of devotion, left by chance in an old library, the property of a long dead ancestress.

But if the fact of hereditary piety be easily explicable, who is to explain to us the mystery of the radiation in opposite directions of the theological compass, so frequently witnessed in the sons and daughters of these particular homes? Do we see in an Evangelical family one son become a Roman Catholic?—then, ten to one, another will ere long avow himself an Unitarian. Does sister A enter an Anglican convent?—then brother B will probably become a Plymouth brother; while C, having gone through a dozen phases of faith, will settle finally in Theism.

It seems to be a law, that though the *predisposition* to piety may be given by our parents both by blood and education, yet the awakening to strong spiritual life rarely or ever happens under their influence, or that of any one altogether familiar with us. The spark must be kindled by a more distant torch, the pollen brought from a remoter flower. When the mysterious process does not take place wholly spontaneously, it comes from some person who adds a fresh impetus and keener sympathy to elements hitherto dormant in our souls. Then happens the marvellous "palingenesia;" and whether he who has helped to work it be of one creed or another, he colours the spiritual world for us at that decisive hour and evermore. We do not "adopt his opinions;" we seize by sympathy on his faith, and make our own both its strength and its limitations.

If we admit, on the whole, Mr. Galton's views with these modifications, the serious questions airse, What must be their general bearing on our theories of the Order of Providence; and on our anticipations respecting the probable future of Religion? Is it not, in the first place (as our fathers would certainly have held), injurious to the Divine character to suppose that men are in this new sense "elected" to

f.25v

piety by the accident of birth, or, conversely, left so poorly endowed with the religious sentiment, that their attainment of a high grade of devotion is extremely improbable? And, in the second place, if the impulsive character be the most genuinely religious, and the tendency of civilization be to reduce all impulse to a minimum, is there not reason to apprehend that in the course of centuries Religion, no longer finding its fitting soil in human characters, will dwindle and continually lessen its influence? I shall do my best to answer both these questions honestly in succession.

The blasphemy of the Calvinistic doctrines of Predestination and Election does not lie in their representing God as dealing differently with His creatures A and B, but in representing Him as inflicting on B an infinite penalty for no fault of his own, or, as we should say in common parlance, for his ill-luck in having been born B and not A. Repudiating all ideas of such penalties, and of any final evil for a creature of God, insisting, as the first article of our faith,

> that somehow good,
> Shall be the final goal of ill,
> To pangs of nature, sins of will,
> Defects of doubt and taints of blood,

the doctrine of Election is reduced to dimensions which it would be hard for one who has cast an eye over history or society altogether to deny. The inequalities of moral advantages in education and the circumstances of life are as obvious as the inequalities of height, weight, ability, fortune, or any other of the conditions allotted to us by Providence. If we mortals would fain have constructed the world on the plan of the Spartan commonwealth, and given each man an equal share of the good things thereof, it is quite certain that God entertains no such scheme, and that the principle of infinite Variety which prevails over every leaf and blade of grass, approves itself to His supreme judgment no less perfectly, applied to the gifts and conditions of His rational creatures. Is there anything in this to hurt our sense of justice? It is to be trusted that there is not, seeing that, if it were so, religious reverence must be at an end, since no argument can possibly overthrow the omnipresent fact before our eyes. The uneasiness we feel in contemplating it arises, I believe, from causes all destined

f.26r

to vanish with the progress of a nobler theology. Beside the idea of the final perdition of the sinful which it is so difficult ever thoroughly to root out of our minds, we are hampered with a dozen false conceptions all allied thereto. We think that all acts which we call sins, and which would be sins for us who recognize them as such and have no urgent temptations to commit them, are necessarily the same sins to the ignorant, the helpless and besotted; and we dream that Divine Justice must somehow vindicate itself against them in the next life. We make no sufficient allowance for the immeasurable difference of the standard by which the Pharisee and the Publican must be weighed. We forget how, when the poor bodily frames, so often disgraced, fall away at last into the dust, the souls which wore them, released from all their contaminations, may arise, cleaner than we can know, to the higher worlds above. Least of all do we take count of the comparative responsibility which must belong to what must be called the comparative *sanity* of human beings. In the very remarkable and exhaustive treatise whose title I have placed second at the head of this article, and which I deeply regret I cannot more thoroughly review, there is to be found a most elaborate analysis of scores of cases of heinous crime committed of late years in France. Making allowance for the author's zeal leading him to push his conclusions somewhat beyond what his premisses warrant, the multitude of these crimes, which he gives us good reasons to believe were committed either under temporary aberration of mind or congenital moral idiotcy, are perfectly appalling. Little doubt can remain on any reader's mind that multitudes of men and women are so constituted as to have but an infinitesimal share of moral responsibility. The most atrocious crimes are often precisely those which, on learning the utter insensibility displayed from first to last by the perpetrators, we are obliged most distinctly to class with such maniacal homicides as that of poor Lamb's sister, or with the ravages of a man-eating tiger in an Indian village.

Again, the inequalities of moral endowment become salient to our apprehension when we contemplate the different races of mankind. Who can imagine for a moment that the same measure will be meted to a Malay or a Kaffir assassin, as to an English Pritchard or a French Lapommerais?

f.26v

But (it may be said) we are not now concerned about the righteous judgments of God on human transgressions. We are content to believe they will be meted out with absolute impartiality at last. What is painful in the theory of Hereditary Piety is the idea that, through such material instrumentality as natural birth, the most divine of all gifts should be bestowed or denied, and that, in fact, a pious man owes his piety not so much (as we had ever believed) to the direct action of the Holy Ghost on his soul, blowing like the wind where it listeth, but rather to his earthly father's physical bequest of a constitution adapted to the religious emotions.

It does not seem to me that the two views, that of the need for the free inspiration of God's Spirit, and that of the heritage of what we will call the religious constitution, are in themselves incompatible. The one is the seed which must needs be sown; the other is the ground, more or less rich and well prepared, into which it must be cast. That among those natural laws which are simply the permanent mode of Divine action, should be found the law that the ground-work of piety may be laid through generations, and that the godly man may bequeath to his child not only a body free from the diseases entailed by vice, but also a mind specially qualified for all high and pure emotions,—this, I think, ought to be no great stumbling-block. That there is something else necessary beside a constitutional *receptivity* towards pious emotions, and that there remains as much as ever for God to do for man's soul after we have supposed he has inherited such receptivity, is, I think, sufficiently clear.

But how of those who inherit no such character, but rather the opposite tendency towards absorption in purely secular interests, towards incredulity, towards that evenly-balanced nature which Mr. Galton attributes to the typical sceptic, which is alike without penitence and without "ambition sainte"? Surely we have only to admit that here is one more of the thousand cases in which this world's tuitions are extended only to the elementary parts of that moral education which is to go on for eternity. That God teaches a few of us some lessons here, which others must wait to learn hereafter, is as certain as that infants, idolators, idiots and boors, are not on the intellectual level of Plato or

F.27r

the moral level of Christ. That it is all the *more* (and not the *less)* certain that an immortality of knowledge and love awaits these disinherited ones of earth and "trims the balance of eternity," appears to me the most direct of all deductions from the justice and goodness of God.

The truth seems to be that every human soul has its special task and its special help. Some of us have to toil against merely gross sensual passion. Others are raised a step higher and fight with the less ignoble irascible feelings and selfish ambitions. Yet, again, others rise above all these. But is their work therefore at an end? Not so. Metaphysical doubts, moral despondencies, spiritual vanities, meet them and buffet them in the higher air to which they have ascended; and who may say but their battle is not hardest of all? Again, to help us to contend against these difficulties, one of us is blessed with happy circumstances, another has a sunny and loving disposition, a third is gifted with a stern moral sense, and a fourth, with a fervent love for God. He who sees all these springs and wheels moving with or against one another, can alone judge which is the noblest victor among all the combatants.

Lastly, we have to touch the question, whether the tendency of Civilization to check the impulsive temperament and foster the more balanced prudential character, will in future time re-act upon Religion by suppressing the development of those natures in which it now takes easiest root.

At first sight, it would undoubtedly appear that such might be the case. Yet, as it is certain that in our day, while civilization increases more rapidly than ever and the power of mere creeds is evaporating into thin air, the religious feelings of mankind are by no means dying out, but are perhaps higher pitched than ever before, so we may fairly conclude that some other law comes into play to compensate for the rude zeal of semi-barbarism. One thing is obvious. The moral conception entertained by men of God, rises constantly with their own moral progress. When the nations shall have reached a pinnacle of ethical excellence far beyond our present standard, when the wild and fierce instincts now rampant shall have died out of the human race, and the ever-fostered social affections wreathe the earth with garlands of grace and fragrance,—even when that far-off millennium comes, God will assuredly seem just

F.27v

as far above man as He seems now. His holiness will transcend human virtue, as the Chaldæan sky transcended the Tower which was meant to reach to it.

Another point must not be forgotten in this connection. The instability of a nature capable alike of great good and great evil, is indeed often, as Mr. Galton teaches us, the first motive which makes a man religious. But *having* become religious, he does not normally remain in a continual tempest of contending principle and passion. That Supreme Guidance which he looks for from on high, and which he believes himself to obtain, leads him onward, as the years go by, out of the wilderness with its fiery scorpions of remorse, into a land of green pastures, beside still waters. The calm of a really religious old age, is a peace compared to which the equipoise of the sceptic is as the stillness of a mill-pond to that of the ocean on whose breast all the host of stars is reflected.

It must needs be the same as regards the race. *Now* it is ever those,

> "Who rowing hard against the stream,
> See distant gates of Eden gleam,
> And do not dream it is a dream."

But hereafter, in the far-off future, when the wilder impulses are dead, mankind may not need to strive always so violently to "take the kingdom of Heaven by force;" but glide on softly and surely, borne by the ever-swelling currents of Faith and Love.

FRANCES POWER COBBE.

V.—ROWLAND WILLIAMS, D.D. IN MEMORIAM.

IF a religious faith which unites the extremest freedom of criticism to a profound sentiment of reverence, the affection for old institutions and forms to an eager welcome for all new truth whencesoever it may come, shall ever grow far more common among us than now it seems to be; if men shall then look back with wonder to days in which to

f. 28r

CONTENTS OF No. XXVIII.

I.—The Jewish Messiah.—II. By Samuel Davidson, D.D., LL.D.

II.—John Reuchlin. By Robert B. Drummond, B.A.

III.—Lecky's History of European Morals. By F. W. Cornish, M.A.

IV.—Dr. Robert Lee. By Henry W. Crosskey, F.G.S.

V.—A Legal Inquiry into the Limits of Clerical Belief. By Courtney Kenny.

VI.—Notices of Books.

CONTENTS.

I.—The Apostles' Creed. By J. Estlin Carpenter, M.A.

II.—Buddhism and Christianity. By Richard A. Armstrong, B.A.

III.—Practical Aspects of the Doctrine of Immortality. By Presbyter Anglicanus.

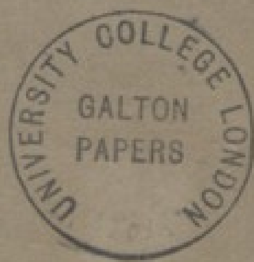
IV.—Hereditary Piety. By Frances Power Cobbe.

V.—Rowland Williams, D.D. In Memoriam. By C. Kegan Paul, M.A.

VI.—Roma Sotterranea. By Charles Beard, B.A.

VII.—Notices of Books.

_ Each Writer is fully and solely responsible for the contribution to which his name is attached.



Printed by C. Green & Son, 178, Strand.

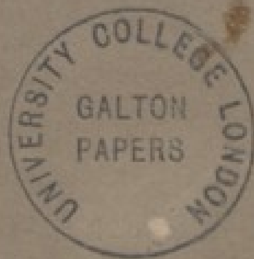
Duplicate Copy

PRICE TWO SHILLINGS AND SIXPENCE.

XXIX. April, 1870.

THE

THEOLOGICAL REVIEW:



A JOURNAL

OF

RELIGIOUS THOUGHT AND LIFE.

"Our fathers worshipped in this mountain; and ye say, that in Jerusalem is the place where men ought to worship." * * *

"The hour cometh, when ye shall neither in this mountain, nor yet at Jerusalem, worship the Father. * * * But the hour cometh, and now is, when the true worshippers shall worship the Father in spirit and in truth: for the Father seeketh such to worship Him. God is a Spirit: and they that worship Him must worship Him in spirit and in truth." (John iv. 20, 21, 23, 24.)

WILLIAMS AND NORGATE,
14, HENRIETTA STREET, COVENT GARDEN, LONDON;
AND 20, SOUTH FREDERICK STREET, EDINBURGH.

JOHNSON & RAWSON, 89, MARKET STREET, MANCHESTER.

PUBLISHED QUARTERLY.

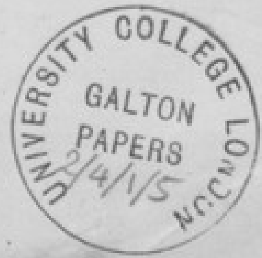
F. 30.

PROTOPLASM; or, LIFE, MATTER and MIND.
By Dr. LIONEL BEALE, F.R.S.
Eight coloured Plates, and an entirely new Section of 36 pages on Mind.
JOHN CHURCHILL and SONS.

CONTENTS FOR APRIL, 1870.

	PAGE
I.—THE APOSTLES' CREED. BY J. ESTLIN CARPENTER, M.A.	145
II.—BUDDHISM AND CHRISTIANITY. BY RICHARD A. ARMSTRONG, B.A.	176
III.—PRACTICAL ASPECTS OF THE DOCTRINE OF IMMORTALITY. BY PRESBYTER ANGLICANUS	200
IV.—HEREDITARY PIETY. BY FRANCES POWER COBBE	211
V.—ROWLAND WILLIAMS, D.D. IN MEMORIAM. BY C. KEGAN PAUL, M.A.	234
VI.—ROMA SOTTERRANEA. BY CHARLES BEARD, B.A.	248
VII.—NOTICES OF BOOKS	265

⁂ Each Writer is fully and solely responsible for the Contribution to which his name is attached.



f. 31r

lived for ever; as he did not, he is simply blotted out of creation. Even if we put out of sight the probability that this would be the lot of nineteen-twentieths of all mankind, the opinion is no sooner stated than we feel it to be absurd, and that as a foundation of belief in immortality it is a naked cheat.

Certainly, as an instrument for teaching, such a doctrine of immortality would be scarcely less mischievous than the materialistic ideas of future torments. It is clear that if, addressing the depraved, we told them that they might go on in the way which they had chosen, without bringing themselves perhaps within reach of the arm of the law or into any great odium with their fellow-men, but that they would do so at the cost of forfeiting a continued existence after death, the reply in the vast majority of cases would be, that they desired nothing else, and that they were quite ready to be snuffed out when their time for enjoying themselves here had reached its end.

The truth is, as it seems to me, that we must have a definition of immortality which will take in all men, or that we may amuse ourselves with definitions which may limit this continued existence to a select few. In the latter case, it will be mere amusement. We cannot shut our eyes to the fact, that the vast mass of mankind live only for the day, and that a very large proportion of these are deliberate workers against God, so far as the words can be applied in any sense to creatures of One who is held to be absolutely powerful, and whose will accomplishes itself. A collective or an unconscious immortality is simply a phrase without meaning; and whether we can have an immortality of conscious individuals without extending it to all animated organisms in their measure, is just one of those questions which all sincere and earnest thinkers must regard as imperiously calling for an answer. How can we address the degraded and the vicious, how can we speak to men in whom all sense of decency seems utterly extinguished or in whom it has never been awakened, unless we tell them that they are in the hands of God, who will assuredly raise them to a better state, but at the cost of all the prolonged suffering which the resistance of their own will must entail on them; and that this process will neither be ended nor interrupted by the incident or change to which we give the

Misc 1.

F. 31v

name of death? Nay, except in this faith, how can we have any sort of hope for ourselves? The most earnest desire to be truthful, the most thorough hatred of certain forms of evil,—in other words, of certain classes of thoughts and actions to which we give the name of evil,—may co-exist with other weaknesses and faults which we distinctly feel to be such, and to tie us down to earth with very heavy chains.

Do we, then, believe that continuous existence is the lot of all men alike, as individuals and as conscious beings, without any reservation or equivocation? If we do, then we need be dismayed not even by the sight of the most corrupt and vicious. If we do not, and if by any words we leave to the young the slightest ground for thinking that we do, we are at once thoroughly cruel and thoroughly dishonest. As fathers, as teachers, as masters—in fact, in all relations with others—we are bound to clear up our own minds, and not to enforce on them a morality founded on definitions which, at best, are applicable to an infinitesimally small proportion of mankind.

In these remarks I have simply broken ground; and I shall be thankful indeed if my words should be followed by an attempt to treat the question, so far as it can be treated, exhaustively. That there are some who think that men may be advantageously brought to regard themselves as creatures existing for the present life only, being in fact nothing more, is notorious. A good work will have been done if the system of ethics which such thinkers put forth be vigorously scrutinized, and the value measured of all the thought and toil, the yearnings and the growth of mankind, which must be thrown into the other scale, and which, if they are weighed down, must be regarded as springing from a wretched and contemptible delusion.

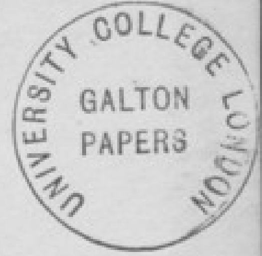
I need scarcely add that what I have said must not be taken as implying dissent from Mr. Owen's conclusions, so far as they are stated. But his definition appears to me inadequate; and the circumstances of the day, especially as affecting the education of the young, force on us the necessity of clearing our words from all equivocation or ambiguity.

PRESBYTER ANGLICANUS.

[We are able to state that this paper will be followed in our July number by one by the Rev. John Owen, the author of the article referred to by Presbyter Anglicanus.—ED. T. R.]

Mr. Cobbe

f. 32r



IV.—HEREDITARY PIETY.

Hereditary Genius. An Inquiry into its Laws and Consequences. By Francis Galton, F.R.S. 1 vol. 8vo. Pp. 390. Macmillan. 1869.

Psychologie Naturelle. Etude sur les Facultés Intellectuelles et Morales. Par Prosper Despine. 3 vols. 8vo. Paris: F. Savy. 1868.

THE history of Public Opinion during the last half century may be not inaptly compared to that of a well-fed, steady-going old roadster, long cherished by a respectable elderly squire, but unluckily transferred at his demise to his wild young heir. Accustomed to all the neighbouring highways, and trained to jog along them at five miles an hour, the poor beast suddenly found itself lashed by "the discipline of facts" and sundry new and cruel spurs, to get over the ground at double its wonted pace, and (what proved harder still) to leave the beaten tracks altogether and cut across country, over walls and hedges which it never so much as peeped over before. Under this altered régime it would appear that Public Opinion at first behaved with the restiveness which was to be expected. On some occasions he stood stock-still like a donkey, with his feet stretched out, refusing to budge an inch; and anon he bolted and shied and took buck leaps into the air, rather than go the way which stern destiny ordained. But as time went on, such resistance naturally grew less violent. The plungings and rearings subsided by degrees, and anybody who now pays attention to the animal will probably be only led to observe that he is a little hard in the mouth and apt to refuse his fences till he has been brought up to them two or three times. In his equine way he finds each new discovery first "false" and then "against religion;" but at last he always makes a spring over it and knocks off the top brick with his hind feet: "Everybody knew it before!"

Had not this process of accustoming Public Opinion to a sharp pace and difficult leaps been going on for some time, it is to be believed that Mr. Galton's book would have produced considerably more dismay and called forth more virtuous indignation than under present training has actually greeted it. We have had to modify our ideas of all things

F. 32 v

in heaven and earth so fast, that another shock even to our conceptions of the nature of our own individual minds and faculties, is not so terrible as it would once have been. We used first to think (or our fathers and grandfathers thought for us) that each of us, so far as our mental and moral parts were concerned, were wholly fresh, isolated specimens of creative Power, "trailing clouds of glory," straight out of heaven. Then came the generation which believed in the omnipotence of education. Its creed was, that you had only to "catch your hare" or your child, and were he or she born bright or dull-witted, the offspring of two drunken tramps, or of a philosopher married to a poetess, it was all the same. It depended only on the care with which you trained it and crammed it with "useful knowledge" to make it a Cato and a Plato rolled into one. Grapes were to be had off thorns and figs off thistles with the utmost facility in the forcing-houses of Edgeworthian schools. It had, of course, been a hard matter to bring Public Opinion up to this point. The worthy old beast recalcitrated long, and when London University reared its head, the trophy of the First Educational Crusade, all the waggery left in England was thought to be displayed by dubbing it "Stinkomalee." But university in town and schools all over the country were overleaped at last, and nobody for years afterwards so much as whispered a doubt that the Three Learned R's were sign-posts on the high road to Utopia.

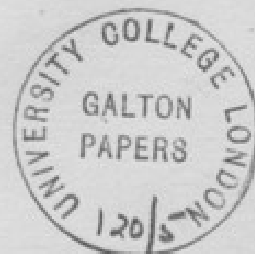
Then arose the brothers Combe to put in some wise words about physical, over and above mental, education. And somehow talking of physical education led to discussing hereditary physical qualities, and the "Constitution of Man" was admitted to be influenced in a certain measure by the heritage of his bodily organization. Children born of diseased and vicious parents, the philosopher insisted, ran a double chance of being themselves diseased and vicious, or even idiotic; and sound conditions in father, mother and nurse, had much to do, he thought, with similar good conditions in their offspring and nursling. Strange to remember! Ideas obvious and undeniable, as these appear to us, seemed nothing short of revolutionary when they first were published; and Public Opinion put back its ears and plunged and snorted at a terrible rate, ere, as usual, it went

F. 33r

over them and "knew it all before." Nevertheless the inalienable right of diseased, deformed and semi-idiotic married people to bring as many miserable children into the world as they please, is yet an article of national faith, which to question is the most direful of all heresies.

But these three doctrines of mental and moral development,—the doctrines, namely, 1st, that we came straight down from heaven; 2nd, that we could be educated into anything; 3rd, that some of our physical peculiarities might be traced to inheritance,—were all three kept pretty clear of meddlings with the Religious part of man. Experience, no doubt, shewed sufficiently decisively that Piety was not a thing to be made to order, and that (at all events under the existing dispensation) there was no bespeaking little Samuels. The mysterious proclivity of children intended for such a vocation to turn out pickles, luckily coincided with—or possibly had a share in originating—the Calvinistic views of Arbitrary Election; while even the Arminians of those days would have vehemently repudiated either the notion, that a man might inherit a pious disposition just as well as a tendency to the gout, or that he would be likely to find the true route to Paradise among other items of Useful Knowledge in the Penny Magazine.

Now it seems, in this year of grace 1870, we are trotting up to another fence, videlicet, the doctrine that *all* man's faculties and qualities, physical, mental, moral and religious also, have a certain given relation to the conditions of his birth. The hereditary element in him,—that element of which we have hitherto entertained the vaguest ideas, admitting it in his features and diseases, and ignoring it in his genius and his passions; recognizing it in noble races as a source of pride, and forgetting it as the extenuation of the faults of degraded ones,—this mysterious element must, we are told, henceforth challenge a place in all our calculations. We must learn to trace it equally in every department of our nature; and no analysis of character can be held valid which has not weighed it with such accuracy as may be attainable. Our gauge of moral responsibility must make large allowance for the good or evil tendencies inherited by saint or sinner, and our whole theory of the meaning and scope of Education must rise from the crude delusion that it is in our power wholly to transform any individual child, to



F. 33 v

embrace the vaster but remoter possibilities of gradually training successive generations into higher intelligence and more complete self-control, till the tendencies towards brute vice grow weaker and expire, and "the heir of all the ages" shall be born with only healthful instincts and lofty aspirations.

As always happens when a new truth is to be discovered, there have been foreshadowings of this doctrine for some years back. The hereditary qualities of Races of men have occupied large room in our discussions. The awful phenomena of inherited criminal propensities have interested not only physicians (like the writer of the second book at the head of our paper), but philosophic novelists like the author of "Elsie Venner." Under the enormous impetus given to all speculations concerning descent by Mr. Darwin, some applications of the doctrine of development to the mind as well as body of man became inevitable, and a most remarkable article in Fraser's Magazine, Oct. 1868, brought to light a variety of unobserved facts regarding the "Failure of Natural Selection in the Case of Man," due to the special tendencies of our civilization. Mr. Galton himself, five or six years ago, published in Macmillan's Magazine the results of his preliminary inquiries as to inherited ability in the legal profession; and Professor Tyndal perhaps gave the most remarkable hint of all, by ascribing the "baby-love" of women to the "set of the molecules of the brain" through a thousand generations of mothers exercised in the same functions.

But the work which has finally afforded fixed ground to these floating speculations, and, in the humble judgment of the present writer, inaugurated a new science with a great future before it, is Mr. Galton's "Essay on Hereditary Genius." The few errors of detail into which the author has fallen in the wide and untrodden field he has attempted to map out, and his easily explicable tendency to give undue weight to disputable indications, and to treat a man's attainment of high office as equivalent to proof of his fitness for it,—these weak points, on which the reviewers have fastened with their usual bull-dog tenacity, cannot eventually influence the acceptance of the immense mass of evidence adduced to prove the main theses of the work, or bar our admiration of its great originality. I do not propose in the ensuing pages to give a general notice of the work, or to mark

f.34r

either all the principles which I conceive Mr. Galton has established, nor those others on which I should venture to differ from him. His main doctrine he has, I believe, demonstrated with mathematical certainty, viz., that all mental faculties, from the most ordinary to the highest and apparently most erratic forms of genius, the various gifts of the statesman, soldier, artist and man of letters, are distributed according to conditions among which inheritance by descent of blood occupies the foremost place; and that there is no such thing in the order of nature as a mighty genius who should be an intellectual Melchisedek.

The further deductions which Mr. Galton draws, appear to me curious and suggestive in the extreme; as, for example, the calculation of the proportion now obtaining in Europe of Eminent Men to the general population; and, again, of the far rarer Illustrious Men to those of ordinary eminence. Based on this calculation, the number of both illustrious and eminent men who flourished during the age of Pericles among the 135,000 free citizens of Attica during the age of Pericles, is so nearly miraculous, that we find it hard to picture such an intellectual feast as life must then have offered. Society at Athens in those days must have surpassed that of the choicest circles of Paris and London now, as these are superior to the ale-house gossipings of George Eliot's rustics. *That* populace for whose eye Phidias chiselled, *those* play-goers for whose taste Sophocles and Aristophanes provided entertainment, *that* "jeunesse dorée" whose daily lounge involved an argument with Socrates—what were they all? What rain of heaven had watered the human tree when it bore such fruit in such profusion? And what hope may remain that it will ever bring them forth in such clusters once more?

Again, a flood of light is poured on the degeneracy of mediæval Europe by Mr. Galton's observations concerning the celibacy of the clergy and the monastic orders. The moment when, as Mr. Lecky shews, chastity (understood to mean celibacy) was elevated into the sublimest of Christian virtues, that moment the chance that any man should perpetuate his race became calculable in the inverse ratio of his piety and goodness. Archbishop Whately long ago exposed the absurdity of the common boast of Catholics concerning the learning and virtue hidden in the monasteries

f. 34v

during the Dark Ages. It would be equally reasonable to take the lamps and candles out of every room in a house and deposit them in the coal-cellar, and then call the passers-by to remark how gloomy were the library and drawing-room, how beautifully illuminated the coal-hole! But Mr. Galton points out that the evil of the ascetic system was immeasurably wider and more enduring in its results even than the subtraction for generation after generation of the brightest minds and gentlest hearts from the world which so grievously needed them. According to the laws of hereditary descent, it was the whole future human race which was being cruelly spoiled by the process of its fairest hopes, its best chances of enjoying the services of genius and of true saintship. Some of those who read these pages may remember in the first Great Exhibition a set of samples of what was called "Pedigree Wheat." The gigantic ears, loaded with double-sized seeds, were simply the result of ten years' successive selection of the finest ears, and again the finest in each crop. The process which Romanism effected for the human race was precisely and accurately the converse of that by which this Pedigree Wheat was obtained. It simply *cut off* each stem which rose above the average in mental or moral gifts. The moment a man or a woman shewed signs of being something better than a clod, a little more disposed for learning, a little more gentle-natured, more pious or more charitable, instantly he or she was induced to take the vow never to become a parent; and only by the infraction of such vows was there a chance for the world of an heir to his or her virtues. The best-born man among us now living, if he could trace out the million or so of his ancestors contemporary twenty generations ago, would hardly find among them a single person mentally distinguished in any way. We are all the descendants of the caterans and hunters, the serfs and boors of a thousand years. The better and greater men born in the same ages hid their light under a bushel while they lived, and took care that it should not be rekindled after their death. When the Reformation came, the case was even worse; for then the ablest, the bravest and the truest-hearted, were picked out for slaughter. The human tares were left to flourish and reproduce their kind abundantly, but the wheat was gathered in bundles to be burnt. To

F.35r

this hour France feels the loss of Huguenot blood (so strangely vigorous wherever it has been scattered!) and Spain halts for ever under the paralysis of half her motor nerves, cut off by the Inquisition.

Besides these discussions, Mr. Galton's book is full of suggestive and original ideas concerning the results of marriages with heiresses, — concerning the influence of able mothers on their sons,—concerning the choice of wives by gifted men, — and, finally, concerning the application of Darwin's hypothesis of Pangenesis to human inheritance of special qualities. Of these topics nothing can here be said, though against some of them I would fain enter my expression of dissent. There remains not more than space enough to discuss the branch of Mr. Galton's subject which properly falls under the notice of a Theological Review, viz., the statistics he has collected concerning Divines.

It was not a little mischievous of Mr. Galton to preface his investigations about the families of pious men, by quoting Psalms cxxviii. 3, cxiii. 9, xxv. 13, and then innocently asking whether the wives of Christian divines have any special resemblance to "fruitful vines," or their children to "olive-branches;" and whether, on the whole, their seed does "inherit the land" in any noticeable manner. Certainly, on the one hand, almost every one of us would be ready to assure the inquirer that, to the best of our persuasion, curates with small salaries have larger families than men of any other profession; and that "Mrs. Quiverfull" was, and could only be, according to the natural fitness of things, a poor clergyman's wife. But then, per contra, our author is evidently unprepared to admit that the unbeneficed clergy of the National Church have a monopoly of piety, or that we ought to look among them especially for the fruits of the first part of the patriarchal benediction; while it is manifest that the second blessing, namely, the "inheriting of the land," falls much more richly on the profane generation of the squirearchy.

Mr. Galton says he finds two conflicting theories afloat on this matter. The first is, that there is a special good providence for the children of the godly. The second is, that the sons of religious persons mostly turn out exceptionally ill. He proceeds to inquire carefully what light statistics can throw on these views, and whether both of

f.35v

them must not yield to the ordinary law of heredity as ruling in other spheres of human activity.

It was not an easy matter to settle at starting what qualification should entitle a man to be reckoned among the eminently pious. Obviously Roman Catholic saints were out of the running, owing to the fatal law of celibacy, whereby fruitful vines and numerous olive-branches are allowed only to decorate the houses of persons who followed not "counsels of perfection." Protestants, on the other hand, have rarely been able to see all the merits of men of different opinions from their own. The name of Laud has not a sweet savour in Evangelical nostrils; while the Ritualist Dr. Littledale talks unconcernedly of those "scoundrels," the martyrs Hooper and Latimer. Nevertheless, Mr. Galton has happily got over his difficulty through an excellent collection—"Middleton's Biographia Evangelica," published in 4 vols. in 1786, and containing 196 picked lives of Protestant saints, from the Reformation downwards. Our author subjects these biographies to sharp analysis, and the following are the conclusions which he deduces from them.

These 196 Protestant saints were no canting humbugs. They were for the greater part men of exceedingly noble characters. Twenty-two of them were martyrs. They had considerable intellectual gifts. None of them are reported to have had sinful parents; and out of the last 100 (whose relations alone are traceable), 41 had pious fathers or mothers. Their social condition was of every rank, from the highest to the lowest. Only one-half were married men, and of these the wives were mostly very pious. The number of their children was a trifle below the average. No families of importance in England are traceable to divines as founders, except those of Lord Sandys and of the Hookers, the famous botanists, who are the lineal descendants of the author of the *Ecclesiastical Polity*. As regards health, the constitution of most of the divines was remarkably bad. Sickly lads are apt to be more studious than robust ones, and the weakly students who arrived at manhood chiefly recruited the band of divines. Among these semi-invalids were Calvin, Melancthon, George Herbert, Baxter and Philip Henry. Reading the lives of eminent lawyers and statesmen, one is struck by the number of them who have

f.36r

had constitutions of iron; but out of all Middleton's 196 divines, he only speaks of 12 or 13 as vigorous. Out of these, 5 or 6 were wild in their youth and reformed in later years; while only 3 or 4 of the other divines were ever addicted to dissipated habits. Seventeen out of the 196 were inter-related, and 8 more had other pious connections. The influence of inheritance of character through the female line is much greater in the case of divines than in that of any other eminent men; an influence Mr. Galton attributes to the utility, in their case, of a "blind conviction which can best be obtained through maternal teaching in childhood."

These results, as Mr. Galton would no doubt readily admit, might be liable to considerable modification, could we extend our field of operations over double or treble the number of instances of piety, and especially if we could include types of piety from other creeds and a greater variety of nations. Taken as it is, however, as the outcome of an inquiry based on freely gathered specimens of Protestant religious eminence, it appears to convey one of the most curious morals ever presented by an historical investigation. A true Christian has been often defined as "the highest kind of man," and Mr. Galton himself avows that these subjects of his anatomy were "exceedingly noble characters." And yet he is forced to pronounce with equal decision from the evidence before him, that they were mostly a tribe of valetudinarians; that there must exist "a correlation between an unusually devout disposition and a weak constitution;" that "a gently complaining and fatigued spirit is that in which Evangelical divines are apt to pass their days;" and, finally, that "we are compelled to conclude that robustness of constitution is antagonistic in a very marked degree to an extremely pious disposition"!

There are no doubt still surviving in the world a good many people who will find in these conclusions of Mr. Galton's nothing to shock their conceptions of what ought to be the causes, tenor and temper of a religious life. There are those who still repeat, with Cowper, that this world is, and ought to be, a Vale of Tears, and that a very proper way to view our position therein is to liken ourselves to "crowded forest trees, marked to fall." To such persons, no doubt, it is natural to pass through the varied joys and

f.36v

interests of youth, manhood and old age, plaintively observing to all whom it may concern, that they

> Drag the dull remains of life
> Along the tiresome road.

But these worthy people have certainly been in a minority for the last twenty years, since the Psalm of Life took definitively the place of the lugubrious "Stanzas subjoined to the Bills of Mortality." And to us in our day it is undoubtedly somewhat of a blow to be told that Religion, instead of being (as the old Hebrews believed) the correlative of health and cheerfulness and length of years, is, on the contrary, near akin to disease; and that he among men whom the Creator has blessed with the soundest body and coolest brain, is, by some fiendish fatality, the least likely of all to give his heart to God or devote his manly strength to His cause. The Glorious Company of the Apostles is reduced to a band of invalids, and the Noble Army of Martyrs is all on the sick list!

Is this true? Shall we sit down quietly under this dictum of Mr. Galton's, and agree for the future to consider health and piety as mutually antagonistic? For my own part, I must confess that if facts really drove me to such a conclusion, I should be inclined to say, with the French philosopher contradicted in his theories, "Eh bien, messieurs! tant pis pour les faits!" No statistics should lash my (private) opinion over that six-barred gate. But are we really driven to such straits at all? It seems to me that Mr. Galton's own words give us the key to the whole mystery, and to a very important truth beside. He tells us at starting that though Middleton assures the reader that no bigoted partiality rules his selection of divines, yet that "it is easy to see his leaning is strongly towards the Calvinists." His 196 picked men are chosen (honestly enough, no doubt) from the churches in which more or less closely the Evangelical type of piety was adhered to as the standard of holiness. No Unitarian or Latitudinarian, no Deist nor Freethinker, had a chance of admission into his lists. We have thus 196 specimens of the plants reared in the peculiar hot-beds of the dominant Protestantism of the seventeenth and eighteenth centuries. Let us take them, then, by all means, and reason on them as excellent exam-

but define the word ? nonpietism FG

ples, 1st, of the persons on whom that creed was calculated to fasten; and, 2ndly, of what really fine characters it was able to form. But do not let us be misled for a moment into the use of generalizations implying that it is "piety" *pur et simple*, piety as it must always be, or always ought to be, which is intrinsically "unsuited to a robust constitution," and specially calculated to take root in a sickly one. Do not let us rest content with the picture of "the gently complaining and fatigued spirit," as if it were the normal spirit of any other pious folk than those of the orthodox persuasion.

And, again, does not this remarkable fact discovered by Mr. Galton, namely, the physical sickliness attendant on the prevalent forms of Christian piety, let in some light on the fact which has been so often noticed, but so little explained, namely, the lack of manliness among clergymen, bishops and "professors" at large? If the phenomenon were not so familiar, it would surely be the most astonishing in the world, that the preachers of religion and morality should be as a body less straightforward, less simple, less brave, than other men. When a clergyman twaddles and cants and equivocates; or when one Bishop "chalks up Free Thought and runs away;" or another talks blasphemously of "The Voice" guiding him to exchange a poor and provincial See for a rich one with a good town-house; or, finally, when "eminent saints" prove dishonest bankers,—how is it that we do not all wring our hands and cry that the heavens are falling? Why do we only nod our heads lugubriously and observe, "What a different sort of man is the Rev. A. B.'s brother, Captain C. D., of the Navy, or Colonel E. F., of the —th Dragoons!" or, "How the episcopal apron transforms a man into an old woman!" or, "How very dangerous it is to have dealings with the saints!"*

Things like these ought to strike us dumb with amazement and horror, had not experience hardened us to a vague anticipation of a correlation between an extraordinary display of Christian sentiment and a proportionate lack of the element of manly honesty and courage. Without formu-

* We have heard an authentic story of a clergyman who, being present at a prayer-meeting at which Sir John Dean Paul engaged in devotion, immediately afterwards rushed up to town and drew all his money out of the too pious banker's hands!

f.37v

larizing our ideas on the matter, there are few of us who, if we were attacked by robbers in a house with a saintly clergyman upstairs and a profane man of the world below, would not rush first to seek our defender in the lower story. Again, in matters of veracity, to whose recommendation of a servant or a teacher do we attach most value—that of the pious vicar of the parish, or that of the fox-hunting squire? Not to pursue these illustrations further, I think my position will be hardly gainsaid if I assert that, while the theological virtues, faith, hope, charity, purity and resignation, flourish abundantly in the vineyard of the Church, the merely moral virtues, courage, fortitude, honesty, generosity and veracity, (& Pagan) are found to grow more vigorously elsewhere. It is not of course maintained that either side of the wall has a monopoly of either class of virtues; but that the priestly or evangelical character has a tendency to form a distinct type of its own; and that in that type there is a preponderance of the more fragile and feeble virtues, and a corresponding deficiency in those which are healthy, robust and masculine. "Muscular Christianity" is a modern innovation, a hazardous and not over-successful attempt to combine physical vigour and spiritual devotion; and the very convulsiveness of the efforts of its apostles to achieve such a harmony, affords the best possible proof of how widely apart to all our apprehensions had previously been "Muscularity" and "Christianity."

But all these remarks apply to what has hitherto passed muster as the received type of piety, and not by any means to Piety in the abstract apart from its orthodox colouring. The unmanliness belongs wholly to the mould, and not to the thing moulded. No man has ever yet felt himself, or been felt by others to be, less manly because in public or in private he has professed his faith in God and his allegiance towards Him. The noblest line perhaps in all French poetry is that which Racine puts into the mouth of the Jewish High-priest,

"Je crains Dieu, cher Abner, et n'ai point d'autre crainte."

It must be admitted that the same cannot be said of the profession of belief in sundry doctrines of orthodoxy. The urgency of a man's dread of hell-fire, his anxiety to obtain the benefits of the Atonement, and his undisguised rejoicing

× all prayer for favours whether material or spiritual, is mendicancy, pure and simple, and mendicancy consorts ill with manliness. I urge that a sense of cooperation and not that a sense of subservience should be our religious motor.

F. 38r

that "Christ his Passover is slain for him," are none of them sentiments to which we attach the character of manliness or generosity.

Perhaps there is no point on which the religion of the future is so certain to differ from that of the past, as in its comparative healthfulness of spirit. And just as a sickly creed, full of dreadful threats and mystic ways of expiation, appealed to minds more or less morbidly constituted, so it is to be believed that a thoroughly healthy and manly creed will harmonize no less distinctly with natures happy, healthful and normally developed.

From this branch of the subject we pass to a most curious and original analysis which Mr. Galton has made of what he considers the typical religious character. It must be premised that in another part of his book he has broached the theory, that the sense of incompleteness and imperfection which theologians define to be the sense of Original Sin, is probably only our vague sense that we are as yet not thoroughly trained to the conditions of civilized life in which we find ourselves, and that there yet remains in us too much of the wild beast, or at least of the hunter and the nomad, to accommodate ourselves perfectly with the polished forms of life in our age and country. "The sense of original sin," he says,* "would shew, according to my theory, not that man was fallen from a high estate, but that he was rising in moral culture with more rapidity than the nature of his race could follow." Generations hence, when civilization has thoroughly done its work, and the instincts of sudden passion and unreasoning selfishness and impatience of law and rule have died out of the whole human family, then we may expect the vague sense of imperfection and guilt to die out too. We are, if I may venture to propose the simile to Mr. Galton, at the present day much in the condition of that unhappy bird, the Apteryx. Through long ages of gradual disuse of flying, our wings have grown smaller and weaker, so that if we desired to return to the habits of our remote progenitors, we should infallibly come to the ground. But the vestiges of the pinions are still there, more or less hidden under our plumage, and so long as they are to be felt, we cannot help

* P. 350.

F. 38v

flapping them sometimes and pining for a flight. The discovery that we can neither be happy flying nor walking, barbarous or civilized, constitutes the grand discontent of life. The sense that we are always inclined to make flaps and flights and fall on our beaks in the dust, is the natural element in the sense of Original Sin.

On this very singular idea Mr. Galton evidently proceeds, in the part of his book under present consideration, to define what he deems to be the typical Religious Character. He holds that its chief feature is its *conscious moral instability.* It is the conjunction of warm affections and high aspirations with frequent failures and downfalls, which makes a man alike sensible of his own frailty and inclined to rely on the serene Strength which he believes rules above him. The religious man is "liable to extremes; now swinging forwards into regions of enthusiasm, now backwards into those of sensuality and selfishness." David, in fact, the David who both slew Uriah and wrote the penitential psalms, is the eternal type of the godly man; and it is much more easy to find Davids among semi-civilized Judæan shepherds or Negroes or Celts, than among long civilized races such as the Chinese.

(abject & prayerful FG)

With this religious type Mr. Galton contrasts the ideal Sceptic, and concludes that the differences of character which, in the one case, make a man happy in the belief in a Divine Guide and Father, and, in the other, content in a mental state tantamount to Atheism, must needs lie in this, that while the Religious man is conscious of his infirmity of will and instability of resolution, insomuch that he needs the thought of God for his support,—the Sceptic, on the contrary, is sufficiently sure of himself and confident in his own self-guidance to feel comparatively no such need for external aid, and to be able without pain to stifle any instinctive longings for a Divine Protector which may arise in his heart. In other words, as Religion had been previously found to be correlated with a feeble physical constitution, so here it is identified with a moral constitution feverish, vacillating and incapable of self-reliance. The Sceptic, on the contrary, is no longer to be looked on, as we had pictured him, as a man in whom the moral sense never rises to the spring-tide where its waves break at the feet of God. He is the exalted being whose whole moral and

No:- "may be an"

f. 39r

intellectual nature is in such perfect balance and harmony, that he can say with Heine, "I am no longer a child. I do not need any more a Heavenly Father."

These views, which Mr. Galton has by no means illustrated in the above manner, but which I think I do him no injustice in so translating, are, in my humble judgment, among the most original and striking of any of the theories propounded on these subjects for many a day. That there is a considerable element of truth in them, I must heartily acknowledge, albeit I would read it in a somewhat different sense from Mr. Galton. The impulsive temperament is beyond question by far the most genuinely religious temperament. The calm, cold, prudential nature, when it adopts religion, does so as an additional precaution of prudence, and is "other-worldly" neither more nor less than it is worldly. Real, spontaneous, self-forgetful religion, springs and flourishes in the heart which is swayed by feeling, not by interest. Nay, more: the sense of Sin, which is the deepest part of all true piety is (we cannot doubt) far more vivid in natures wherein much of the wild, untamed human being still survives, which are swayed alternately by opposite motives, and are yet far from having been so disciplined and moulded in the school of the world as to be mere civilized machines. Probably it has happened to all of us at some time or other to wish that we could see some self-satisfied paragon of steadiness and respectability fall for once into some disgraceful fault, get drunk, or swear, or do something which should shake him out of his self-conceit, and give him a chance to learn that Religion and Pharisaism are not convertible terms. Many of us also must have watched the deplorable delusion of some originally good and always well-balanced character, in which, as there seems no need for self-restraint, no self-restraint is ever tried, and amiability lapses into self-indulgence, and self-indulgence into selfishness, and selfishness into hypocrisy and hardness of heart.

to wit, – Condorcet

On the other hand, the permanent Sceptic is probably equally fairly described as a man who has not only made up his mind to the intellectual conclusion that there is nothing to be known about God, but also has reconciled his heart to the lack of religious supports and consolations through the help of a sturdy self-reliance. Either he is a

, F.39v

sinner without any particular shame or hatred for his sin; or, as oftener happens, he is of so passionless a temperament, so prudent and well-balanced a constitution, that he recognizes few sins to repent of in the past, and knows that no serious temptation is likely to overmaster him in future. In every case, the double sense of self-abasement and self-mistrust are absent. He has no need to be reconciled with himself, so he feels no need of being reconciled with God. He walks firmly along a certain broad and beaten path of ordinary honesty, justice and sobriety, without toiling up celestial heights in the pursuit of love and faith and purity; and for his own road, and so far as he means to travel, he calls for no angels to bear him on their wings.

Lastly, it is easy to verify the fact, that these temperaments correspond in their main outlines to the races and sexes in which religion and scepticism are each most frequently developed. The impulsive races of mankind, the Southern nations of Europe, are more inclined to religion and less to incredulity than those of the North. The unstable Celt is more pious, whether he be Catholic in Ireland or Methodist in Wales, than the steady-going, law-abiding Saxon of any denomination. And, finally, women are more religious than men, while displaying at once more vacillation of the will and (probably in most cases) higher aspirations after ideal holiness and purity.

What is now to be our conclusion respecting Mr. Galton's theory of the Origin of Piety? We have seen, in the first instance, that he identifies it with a sickly physical constitution, and we ventured so far to correct this result as to substitute for Piety in general, Piety in the particular form of Evangelical Christianity. We pointed out that it was only from among Evangelical Divines that the premisses of his argument had been taken, and that there was a very strong presumption that Piety equally deep and true, but of an opposite type, would, on experience, be found to shew a no less marked affinity for those "robust constitutions" wherein the orthodox seed finds an ungenial soil.

In the present case, we have to decide whether we can admit Mr. Galton's second correlation of Piety with moral instability of purpose. In my opinion, we may rightly trace in this case a relation between all true types of Piety and such instability, provided that we interpret the insta-

f. 90r

bility to consist, *not* in an unusual degree of frailty in acting up to a mediocre standard of virtue,—*not* in having merely, as he avers, a greater "amplitude of moral oscillations than other men of equal average position,"—but in a necessarily faulty and imperfect attempt to act up to a standard higher than that commonly received, and for which the man (to apply Mr. Galton's system) has not been sufficiently *bred*. *

What, then, is the bearing of our admission as regards this matter? It is tantamount only to this: that the temperament which contains the noblest elements and aspires highest, even if it fall lowest, is also the nature on which the crowning glory of the love of God most often descends. Just as Longinus decides that the greatest poem is not the one which longest sustains an even flight, but the one which ever and anon soars into the highest empyrean, even so the man who *in his highest moments rises highest* is truly the greatest man. It is he who, though his nature be a very chaos of passions—a den of wild beasts, as many of the saints have spoken of their own souls—yet has in him longings and strivings and yearnings after the Holy and the Perfect; it is he who is not only naturally predisposed to piety, but worthy to know the joy of religion. Out of such stuff demi-gods are made. Out of well-ordered, prudent, self-reliant sceptics, men of the world are made, and nothing more.

~~Horace~~ Julius Caesar!

It is, I apprehend, a definite and very valuable acquisition to psychology, to recognize that it is not by accident, but natural law, that characters wherein flesh and spirit do hardest battle, and Apollyon not seldom gains temporary advantage, are yet precisely those who are "bound for the Celestial City." Mr. Worldly Wiseman never descends into the Valley of Humiliation, but neither does he ever climb the Delectable Mountains nor push through the Golden Gates.

With regard to the hereditary descent of religions as well as other qualities, Mr. Galton develops his theory in the following manner. Starting on the assumption that the typical religious man is one who combines high moral gifts with instability of character, it is obvious that if one of the two elements whose *combination* makes the parent's piety is *separately* inherited by the son, an opposite result will

* Does it not come to this?— one ~~imperfect specimen~~ man is imperfect from the fact of his aspirations being lower than his powers, the other from his powers being overmuch lower than his aspirations. — Just as a lazy man of strong muscle or a fretful eager man of weak muscle are imperfect.

f.40v

appear. If the son's heritage "consist of the moral gifts without the instability, he will not feel the need of extreme piety," and may become Mr. Galton's ideal sceptic. "If he inherit great instability without morality, he may very probably disgrace his name." Only in the third contingency, namely, that of the son inheriting both the father's qualities, is there any security for his following in the parental steps.

Thus we have an explanation more or less satisfactory of the double phenomenon, that there is such a thing as hereditary piety, and that there is also an occasional (though I hardly think, a very common) tendency for the sons of a really religious man to turn out either sceptics or reprobates. So far as my judgment goes, I should say that the common disposition of children is to share in a very marked manner the emotional religious constitutions of their parents, that this is only counteracted when piety is presented to them in so repulsive a shape, as to provoke the over-lectured "little Samuels" into rebellion. There are two facts connected with such heritage which must have forced themselves on the attention of all my readers. One of them falls in with Mr. Galton's theories of heredity, but the other must needs be explained by reference to post-natal influences. The first is the tendency of strong religious feeling to pervade whole families. The second is the equally strong tendency of the different members of such religious families to adopt different creeds and types of piety from one another, insomuch that the sympathy which ought to have united them in closer bonds than other households is too often converted into a source of dissensions.

These two facts will, I think, be disputed by few readers. All of us are acquainted with families in which no vehement warmth of religion has ever shewn itself, and in which, according to Evangelical language, "conversions" never take place. Again, we all know personally a few, and by report a great many families, where for successive generations there are men and women of either saintly piety or fanatic zeal. As Hindoos would say, there are Brahmin races in which twice-born men are found, and Kshatriyas and Soodras in which the phenomenon of regeneration never occurs.

This remarkable fact may, of course, be explained doubly. There is the hereditary tendency to the religious constitu-

tion; and there are all the thousand circumstances of youthful impression likely to bring that tendency into action. Family traditions of deeds and words, family pictures, and of course family habits of devotion, where these are maintained, are incentives of incalculable weight. It would be hard for the present writer to define how much of her own earlier feelings on such matters were due to a handful of books of the Fénélon school of devotion, left by chance in an old library, the property of a long dead ancestress.

But if the fact of hereditary piety be easily explicable, who is to explain to us the mystery of the radiation in opposite directions of the theological compass, so frequently witnessed in the sons and daughters of these particular homes? Do we see in an Evangelical family one son become a Roman Catholic?—then, ten to one, another will ere long avow himself an Unitarian. Does sister A enter an Anglican convent?—then brother B will probably become a Plymouth brother; while C, having gone through a dozen phases of faith, will settle finally in Theism.

instability!

It seems to be a law, that though the *predisposition* to piety may be given by our parents both by blood and education, yet the awakening to strong spiritual life rarely or ever happens under their influence, or that of any one altogether familiar with us. The spark must be kindled by a more distant torch, the pollen brought from a remoter flower. When the mysterious process does not take place wholly spontaneously, it comes from some person who adds a fresh impetus and keener sympathy to elements hitherto dormant in our souls. Then happens the marvellous "palingenesia;" and whether he who has helped to work it be of one creed or another, he colours the spiritual world for us at that decisive hour and evermore. We do not "adopt his opinions;" we seize by sympathy on his faith, and make our own both its strength and its limitations.

If we admit, on the whole, Mr. Galton's views with these modifications, the serious questions airse, What must be their general bearing on our theories of the Order of Providence; and on our anticipations respecting the probable future of Religion? Is it not, in the first place (as our fathers would certainly have held), injurious to the Divine character to suppose that men are in this new sense "elected" to

f.41v

piety by the accident of birth, or, conversely, left so poorly endowed with the religious sentiment, that their attainment of a high grade of devotion is extremely improbable? And, in the second place, if the impulsive character be the most genuinely religious, and the tendency of civilization be to reduce all impulse to a minimum, is there not reason to apprehend that in the course of centuries Religion, no longer finding its fitting soil in human characters, will dwindle and continually lessen its influence? I shall do my best to answer both these questions honestly in succession.

no. – I won't allow this. "pious" in the technical sense, yes.

The blasphemy of the Calvinistic doctrines of Predestination and Election does not lie in their representing God as dealing differently with His creatures A and B, but in representing Him as inflicting on B an infinite penalty for no fault of his own, or, as we should say in common parlance, for his ill-luck in having been born B and not A. Repudiating all ideas of such penalties, and of any final evil for a creature of God, insisting, as the first article of our faith,

> that somehow good,
> Shall be the final goal of ill,
> To pangs of nature, sins of will,
> Defects of doubt and taints of blood,

the doctrine of Election is reduced to dimensions which it would be hard for one who has cast an eye over history or society altogether to deny. The inequalities of moral advantages in education and the circumstances of life are as obvious as the inequalities of height, weight, ability, fortune, or any other of the conditions allotted to us by Providence. If we mortals would fain have constructed the world on the plan of the Spartan commonwealth, and given each man an equal share of the good things thereof, it is quite certain that God entertains no such scheme, and that the principle of infinite Variety which prevails over every leaf and blade of grass, approves itself to His supreme judgment no less perfectly, applied to the gifts and conditions of His rational creatures. Is there anything in this to hurt our sense of justice? It is to be trusted that there is not, seeing that, if it were so, religious reverence must be at an end, since no argument can possibly overthrow the omnipresent fact before our eyes. The uneasiness we feel in contemplating it arises, I believe, from causes all destined

f.42r

to vanish with the progress of a nobler theology. Beside the idea of the final perdition of the sinful which it is so difficult ever thoroughly to root out of our minds, we are hampered with a dozen false conceptions all allied thereto. We think that all acts which we call sins, and which would be sins for us who recognize them as such and have no urgent temptations to commit them, are necessarily the same sins to the ignorant, the helpless and besotted; and we dream that Divine Justice must somehow vindicate itself against them in the next life. We make no sufficient allowance for the immeasurable difference of the standard by which the Pharisee and the Publican must be weighed. We forget how, when the poor bodily frames, so often disgraced, fall away at last into the dust, the souls which wore them, released from all their contaminations, may arise, cleaner than we can know, to the higher worlds above. Least of all do we take count of the comparative responsibility which must belong to what must be called the comparative *sanity* of human beings. In the very remarkable and exhaustive treatise whose title I have placed second at the head of this article, and which I deeply regret I cannot more thoroughly review, there is to be found a most elaborate analysis of scores of cases of heinous crime committed of late years in France. Making allowance for the author's zeal leading him to push his conclusions somewhat beyond what his premisses warrant, the multitude of these crimes, which he gives us good reasons to believe were committed either under temporary aberration of mind or congenital moral idiotcy, are perfectly appalling. Little doubt can remain on any reader's mind that multitudes of men and women are so constituted as to have but an infinitesimal share of moral responsibility. The most atrocious crimes are often precisely those which, on learning the utter insensibility displayed from first to last by the perpetrators, we are obliged most distinctly to class with such maniacal homicides as that of poor Lamb's sister, or with the ravages of a man-eating tiger in an Indian village.

Again, the inequalities of moral endowment become salient to our apprehension when we contemplate the different races of mankind. Who can imagine for a moment that the same measure will be meted to a Malay or a Kaffir assassin, as to an English Pritchard or a French Lapommerais?

F. 42v

But (it may be said) we are not now concerned about the righteous judgments of God on human transgressions. We are content to believe they will be meted out with absolute impartiality at last. What is painful in the theory of Hereditary Piety is the idea that, through such material instrumentality as natural birth, the most divine of all gifts should be bestowed or denied, and that, in fact, a pious man owes his piety not so much (as we had ever believed) to the direct action of the Holy Ghost on his soul, blowing like the wind where it listeth, but rather to his earthly father's physical bequest of a constitution adapted to the religious emotions.

It does not seem to me that the two views, that of the need for the free inspiration of God's Spirit, and that of the heritage of what we will call the religious constitution, are in themselves incompatible. The one is the seed which must needs be sown ; the other is the ground, more or less rich and well prepared, into which it must be cast. That among those natural laws which are simply the permanent mode of Divine action, should be found the law that the ground-work of piety may be laid through generations, and that the godly man may bequeath to his child not only a body free from the diseases entailed by vice, but also a mind specially qualified for all high and pure emotions,—this, I think, ought to be no great stumbling-block. That there is something else necessary beside a constitutional *receptivity* towards pious emotions, and that there remains as much as ever for God to do for man's soul after we have supposed he has inherited such receptivity, is, I think, sufficiently clear.

But how of those who inherit no such character, but rather the opposite tendency towards absorption in purely secular interests, towards incredulity, towards that evenly-balanced nature which Mr. Galton attributes to the typical sceptic, which is alike without penitence and without "ambition sainte"? Surely we have only to admit that here is one more of the thousand cases in which this world's tuitions are extended only to the elementary parts of that moral education which is to go on for eternity. That God teaches a few of us some lessons here, which others must wait to learn hereafter, is as certain as that infants, idolators, idiots and boors, are not on the intellectual level of Plato or

F. 43 r

the moral level of Christ. That it is all the *more* (and not the *less)* certain that an immortality of knowledge and love awaits these disinherited ones of earth and "trims the balance of eternity," appears to me the most direct of all deductions from the justice and goodness of God.

The truth seems to be that every human soul has its special task and its special help. Some of us have to toil against merely gross sensual passion. Others are raised a step higher and fight with the less ignoble irascible feelings and selfish ambitions. Yet, again, others rise above all these. But is their work therefore at an end? Not so. Metaphysical doubts, moral despondencies, spiritual vanities, meet them and buffet them in the higher air to which they have ascended; and who may say but their battle is not hardest of all? Again, to help us to contend against these difficulties, one of us is blessed with happy circumstances, another has a sunny and loving disposition, a third is gifted with a stern moral sense, and a fourth, with a fervent love for God. He who sees all these springs and wheels moving with or against one another, can alone judge which is the noblest victor among all the combatants.

Lastly, we have to touch the question, whether the tendency of Civilization to check the impulsive temperament and foster the more balanced prudential character, will in future time re-act upon Religion by suppressing the development of those natures in which it now takes easiest root.

At first sight, it would undoubtedly appear that such might be the case. Yet, as it is certain that in our day, while civilization increases more rapidly than ever and the power of mere creeds is evaporating into thin air, the religious feelings of mankind are by no means dying out, but are perhaps higher pitched than ever before, so we may fairly conclude that some other law comes into play to compensate for the rude zeal of semi-barbarism. One thing is obvious. The moral conception entertained by men of God, rises constantly with their own moral progress. When the nations shall have reached a pinnacle of ethical excellence far beyond our present standard, when the wild and fierce instincts now rampant shall have died out of the human race, and the ever-fostered social affections wreathe the earth with garlands of grace and fragrance,—even when that far-off millennium comes, God will assuredly seem just

f. 43v

as far above man as He seems now. His holiness will transcend human virtue, as the Chaldæan sky transcended the Tower which was meant to reach to it.

Another point must not be forgotten in this connection. The instability of a nature capable alike of great good and great evil, is indeed often, as Mr. Galton teaches us, the first motive which makes a man religious. But *having* become religious, he does not normally remain in a continual tempest of contending principle and passion. That Supreme Guidance which he looks for from on high, and which he believes himself to obtain, leads him onward, as the years go by, out of the wilderness with its fiery scorpions of remorse, into a land of green pastures, beside still waters. The calm of a really religious old age, is a peace compared to which the equipoise of the sceptic is as the stillness of a mill-pond to that of the ocean on whose breast all the host of stars is reflected.

It must needs be the same as regards the race. *Now* it is ever those,

> "Who rowing hard against the stream,
> See distant gates of Eden gleam,
> And do not dream it is a dream."

But hereafter, in the far-off future, when the wilder impulses are dead, mankind may not need to strive always so violently to "take the kingdom of Heaven by force;" but glide on softly and surely, borne by the ever-swelling currents of Faith and Love.

Frances Power Cobbe.

V.—ROWLAND WILLIAMS, D.D. IN MEMORIAM.

If a religious faith which unites the extremest freedom of criticism to a profound sentiment of reverence, the affection for old institutions and forms to an eager welcome for all new truth whencesoever it may come, shall ever grow far more common among us than now it seems to be; if men shall then look back with wonder to days in which to

f. 44r

inquire was called disloyal, and a desire for reformation branded as destructiveness, and shall ask who were the honest and brave pioneers of the advancing armies of free thought,—no name will claim more honourable mention, no life will more seem to have been taken from the Church of England when most it was needed, than the name and the life of Dr. ROWLAND WILLIAMS.

Yet now, while his loss is so recent and his memory so green in the hearts of those who loved him, it may be doubted if more than a very few know what we have lost; his influence is as yet rather deep than extended; it has even been the misfortune of his career that he was best known in precisely the very modes in which he would least have chosen that in happier times his work should have lain.

Dr. Williams' more important writings were published before this Review came into existence. His latest, and by no means his least useful, have only been in part as yet given to the world. Hence we have not had many opportunities of speaking of him at any length or directly. But when we have mentioned his name, it has always been with affectionate admiration. A writer of a notice in our pages of the Broad-Chalke Sermon Essays remarked, that "if the spirit manifest in this volume could be found pervading the general pulpit utterances of England, we might feel assured that the interests of religion, and with them the true well-being of the nation, were so secured that they could never more be endangered."* And the writer of this present notice, as well as other contributors, has again and again had reason to speak with gratitude of the teacher to whom he was so deeply indebted, and who, as it seemed, was in his own way and from his own standpoint working with the writers of this Review. Hence it is well that we should endeavour to estimate what is and what will be the action on English thought of one whom we regard as among the most remarkable theologians of our day.

It must not, however, be supposed that Dr. Williams considered himself as in any sense a worker with us. It would be in the highest degree unfaithful to a man who was so eminently straightforward and outspoken, did we not take

* Theol. Rev., Vol. IV. p. 440.

f. 44v

care that it should be quite plain he was not of, but rather that he was against, us. In September, 1865, he thus wrote to one who proposed that he should offer a contribution to this Review:

"As to the suggestion of writing therein, it may be very naturally addressed to me, since having been never connected with any Review since Lockhart's death, nor having, except once casually, written an article anywhere, I may be supposed to be in want of an organ. I do not, however, feel in myself the redundancy of vigour which makes reviewing a necessity for some men; and, so far as I am able to write, prefer writing in other ways.

"Besides this, having long stood alone in reality, I prefer doing so in appearance, and do not intend entangling myself with other men again. I need not enter on the ground of denominational doctrine, although it would have for me grave significance."

There is every reason for supposing that his denominational position assumed ever more importance in his eyes, of which position he said at a somewhat later date:

"If you bear in mind that I have for twelve years taught pure Anglicanism, explaining and defending the Articles clause by clause, and facilitating signature of them on the principle of believing them, you will partly understand why the only thing left for me is to jog on alone."

He was indeed alone. He speaks of "the intense mortification and embarrassment" caused by the want of any brother scholar with whom he could sympathize, and at his out-of-the-way parish, among the Wiltshire downs, there was probably no one in any degree able to appreciate the ripe culture, the subtlety of feeling, the polished style, of a man fitted to shine in one of our great centres of intellectual life.

And, again, he was alone by consequence of his extreme refinement of thought, under which he shewed himself sometimes intolerant of those who could not enter into his nice distinctions, and who did not see in the same light as he did the more involved questions of theology. This was especially the case in reference to those who claimed to follow his teaching to a very large extent, but did not always adopt his conclusions, or pressed them further than he saw there was need to press them. Some

UNIVERSITY COLLEGE LONDON
GALTON PAPERS

HEREDITARY GENIUS.*

KILMENY.*

* Hereditary Genius; an Inquiry into its Laws and Consequences. By Francis Galton, F.R.S., &c. London: Macmillan and Co.

* Kilmeny. By William Black. London: Sampson Low.

combining supply and transport of every kind under one management, and obtaining the concurrence of the Commander-in-Chief, they have recommended the adoption of this view of the question. But recognising the cogency of the argument that scientifically and technically educated officers should alone have to deal with the complicated and delicate munitions of war of the present day, the Committee have made a proposal that will make the one arrangement approximate as closely as may be to the other. There is to be, under the Control Department, an ordnance branch, composed in a great measure of artillery officers and non-commissioned officers, which will be charged with the manufacture, custody, and distribution of all munitions of war. There is much to be said for and against such arrangement. Theoretically, at all events, the proposal of the Committee has much to recommend it. The objection of greatest force against it is that possibly the all-absorbing Control Department will prove to be too unwieldy to admit of that despatch and certainty so essential in dealing with munitions of war on active service. The Committee have not overlooked this objection, and they have insisted, in the strongest possible manner, on the application—in this as in all the other army departments—of a principle novel to our administration. This principle is that the officers in charge of sub-departments and branches should conduct the routine of their business on their own responsibility, and without reference, save in weighty matters, to their official chiefs, who would thus be relieved of a pressure fatal to prompt and efficient administration. Abandon, say the Committee, the cumbrous system of check and counter-check, of suspicion and want of confidence; give your subordinates more scope of action; throw more responsibility upon them, and then you will have your work done more satisfactorily, certainly more expeditiously. The argument cannot be disputed. But if the principle be carried too far, and in all branches, it might possibly land us amongst some of the evils that have lately been unearthed in the Admiralty.

The question dealt with by the Committee in their third report is by far the most important of all. It was a foregone conclusion that the War-office and the Horse Guards should be "fused together," but how to effect the fusion was by no means a simple matter to settle. The Committee, as was to be expected, are emphatic on the point that until the Horse Guards and War-office are brought under one roof, the reorganisation of the administrative departments of the army must necessarily be incomplete. But even physically separated as the two departments are now, there can be no question that if the proposals of the Committee be fully carried out, an enormous simplification and economy of work will result. A vast amount of correspondence that now goes to the Horse Guards for transmission to the War-office will in future be sent straight to the Control Department. This arrangement will relieve the Military Secretary of so much of the functions he now unnecessarily performs, that this officer's public duties will be "confined to promotions "and appointments." But the simplification will not end here. The Quartermaster-General's Department will eventually vanish from the scene. It has been already relieved of certain duties connected with stores and transport by the Control Department, and the rest of these duties will either go the same way, or be conducted under the Adjutant-General's Division. Thus, then, the Horse Guards, or "Military Department" of the army, will virtually consist of the Adjutant-General's Division, charged with the discipline, the organisation, and the distribution of the regular and the reserved forces of the country. In the field a general officer would have to communicate only with the Adjutant-General, or Chief of the Staff, upon matters of strategy and discipline, and with his Controller upon matters of supply and transport. "The whole military staff of the army would be "concentrated and made available for every ser-"vice, unnecessary correspondence would cease," and, with a simpler system, considerable reductions of establishment might be made.

We appear, then, to be really on the verge of a comprehensive reorganization of our Army Department. With the War Minister actually as well as virtually supreme in every branch and in all particulars; with three, and three only, well-defined departments—Military, Supply, and Financial—in the War-office, together with the fewest possible number of sub-departments; with a ruthless curtailing of red tape, minuting, and correspondence; with confidence reposed in, and responsibility thrown on, the executive officers in every branch; and lastly, with the Commander-in-Chief at the right hand of the War Minister as his sole military adviser, we shall have a system that appears wonderfully free from objection, and calculated to work well in practice. Mr. Cardwell has been taunted with doing little in the direction of the promised administrative reform; but a re-organization of the army departments was not a thing to be rushed at. The investigation made by Lord Northbrook's Committee was a necessary preliminary to action. How thorough that investigation has been, how sound and statesmanlike the proposals of the Committee are, we have endeavoured to show. It only remains to carry into execution, promptly and unhesitatingly, that scheme which has been elaborated with such great skill, care, and patience.

There are now no less than four bills before the House of Commons, the object of which is to amend the existing so-called Game Laws. The last was introduced by the Lord Advocate as Minister for Scotland, and the Home Secretary as Minister for England. There is, however, this difference between these and all former bills that, whereas game legislation formerly used to deal exclusively with the position of poachers—that is, with the position of a class who neither owned nor occupied land, it now—with the exception of Mr. Taylor's bill—deals only and exclusively with the relations created by the existence and preservation of game between the owner of the soil and his lessee. The country has recognised the poacher for what he really is—about the least useful element in our social system. As to the exceptional measure introduced by Mr. Taylor, and the other four Members who have not thought it inconsistent with reason, or injurious to their legislative reputation, to associate their names with his on the back of the bill, there is not much to be said, except that these gentlemen appear to have a settled conviction that the true way to eradicate wrong-doing is to abolish the laws which declare and define it. Mr. Taylor, Mr. Jacob Bright, Mr. White, Mr. M'Combie, and Mr. Dickinson, logically enough, from their point of view, propose to save the fall by levelling the fence, and to get rid of the offence of poaching by destroying off the face of the land the animals the plunder of which is the object of the poacher. Probably we shall be throwing away time if we point out to purveyors of this turn of thought that game, at any rate when it is dead, is directly property as much as oxen and sheep are, and is indirectly property when alive, inasmuch as the right to kill and appropriate it has a recognised market value, and is capable of being sold or let at a high rate of profit. Game has become—especially grouse and pheasants—a very considerable article of commerce with foreign nations, as well as of trade in the home markets of our great towns, and the artisan class, as well as the rich, are large purchasers of the generally condemned ground game. It is also well known to all persons less ill-informed than Mr. Taylor, that since the existing laws with relation to game have been in force there is comparatively very little winged game, at all events, sent into the market by poachers. The owners and occupiers of the soil undersell the poachers and beat them out of the field.

The other measures consist of one bill introduced by Mr. Wykeham Martin, Sir David Salomons, and Sir Henry Hoare; another relating exclusively to Scotland, put together by Mr. Loch, Sir R. Anstruther, and Mr. Parker; and a third bill applying to the United Kingdom, brought in, as we have stated, by the Lord Advocate and the Home Secretary. Of these Mr. Wykeham Martin's bill is knocked out of the ring partly by the Budget of the Chancellor of the Exchequer, and wholly by the evident determination of Parliament not to interfere by legislation with freedom of contract where freedom can be ensured. Mr. Loch's bill is neutralised by that of the Lord Advocate and the Home Secretary, which embraces the position of both England and Scotland, and, therefore, practically only remains for real consideration. It is in principle a sound bill, and its provisions are fairly calculated to meet and dispose of the difficulties which have arisen between landlord and tenant in those two divisions of the kingdom in which agriculture is carried by tenant-farmers to the highest pitch of excellence. The tenant-farmers of Scotland stand in a position differing materially from that occupied by the tenant-farmers of England in this essential particular, that whereas in England the game, unless specially reserved by covenant under seal by the lessor, is the property of the lessee, it in Scotland belongs absolutely to the owner of the soil, and can only pass from him by his own act. This condition of relations constitutes, no doubt, in Scotland, a real and sensible grievance, as cultivation is steadily creeping up the mountain sides, and becoming mixed with the unreclaimed lands in a manner which renders the descent of the wild animals, and especially of the hares and rabbits, injurious to the farmer.

The Government bill proposes to afford relief from these conditions by making the law of Scotland identical with the law of England in this respect. The bill then proceeds to deal, and, as we think, reasonably and justly, with the general complaints urged by the tenant-farmers. It takes its stand upon the doctrine of freedom of contract, and assumes the question of property in game to be no less a matter of contract than the question of rent or of modes of cultivation. It puts in that respect tenant and landlord upon a footing of perfect equality, so that the tenant who touches the game after reserve made under covenant by the landlord will in future be treated not as a poacher, but as a breaker of a contract, and be proceeded against accordingly. The greatest real grievance of the tenant, however, does not consist so much in the quantity of game on the land at the moment of his taking, as in the large addition which the landlord is tempted to make, and too often under the impulse of the vicious battue system, actually does make, after the tenant comes into possession. The Government bill provides for this difficulty by enacting in the eighth and tenth clauses that whenever a landlord who shall have reserved the ground game shall neglect to keep down the stock to such an extent as shall be fair and reasonable in justice to a lessee prohibited from killing them, the landlord shall be held liable to damages, to be recovered as in cases of breaches of contract. It is also further provided that in judging of the extent to which it is fair and reasonable that stock should be kept down, and also in assessing damages, regard shall be had to the character and cultivation of the land, the amount of rent as compared with the real value at the commencement of the lease, and the terms and conditions of the lease. These provisions, coupled with the reasonable modes in which it is proposed in subsequent clauses to carry them into effect, may, we hope, be found sufficient to meet the difficulties which have arisen between landlord and tenant in both England and Scotland.

It is, we are informed, proposed to confer the honour of a baronetcy upon Mr. Daniel Adolphus Lange, in consideration of the services rendered by him with regard to the Suez Canal.

We (Standard) regret to hear that the Conservatives are about to lose the very valuable services of Mr. Spofforth, who, since the autumn of 1859, has fulfilled the very arduous and responsible duties of agent of the Conservative party. We understand that Mr. Spofforth's resignation is the carrying out of an intention long ago expressed, and only deferred in the interests of the party with which he has been so long connected; and it is right to remark that every effort has been made, although unfortunately without success, to induce him to reconsider his determination. To those who know how much knowledge, tact, and discretion, and what incessant toil, are required for the due performance of the very delicate functions of the post which Mr. Spofforth has filled for so many years, it will be needless to say one word as to the zeal, ability, and high principle with which that gentleman has conducted the electioneering business of the Conservative party. Suffice it to say, that his resignation will be regarded with very great regret by all those who have the best interests of the party truly at heart, whilst by its leaders it will be felt to be an almost irreparable loss. [The retirement of Mr. Spofforth will, we feel sure, be hardly less regretted by his political opponents, and they can only hope that in his successor they may find a gentleman as fair dealing and as straightforward.]

University College, London.—The professorship of mathematics in University College, London, is about to become vacant by the resignation of Professor Hirst. The election of his successor will take place immediately after the 4th of May.

The Fatal Fire at Cardiff.—Mr. Storey, the husband of the Glamorgan Hotel, Cardiff, which was burnt last Saturday, died yesterday. This makes the fifth death.

Whitechapel has driven them mad, the introduction of cheap trains has imported a class of people such as was not dreamed of even when the Tuggs's paid their celebrated visit, and your respectable first-class tradesman has cut Kent for Sussex, and "uses" Brighton largely. September and October see another class of visitors, the poorer professional men and struggling Government clerks, with whom it is respectively "long vacation" and "leave," who long to get away from the "dusty purlieus of the law" and stuccoed residences of suburban gentility, and to whom, many-childreped as they generally are, the cheap railway fare is an object. And at length comes November, when everybody arrives.

Everybody? Ay, everybody who is anybody! The Grand Hotel, which looks like a large ironmonger's shop with a few fenders outside, and which is nicknamed Jerusalem the Golden—from its gilt gim-crackery and its popularity with the Hebrews—is filled to the roof. The Bedford is crammed; county families and steady-going middle-aged gentlemen are located at Pegg's; the Albion is patronised by the military, whose requirements are so many and so exacting that they could only be met by a skilled caterer like Mr. Lawrence, the new proprietor; while at the Old Ship Mr. Richard Bacon is at his wits' end where to stow the people that have so long been in the habit of visiting his house. At all the other hotels it is the same, and not a single board of apartments is to be seen even in a bye street. And between three and four in the King's Road is the time to see everybody: it is better than the park, for here equestrians and carriage-people mingle,—the Row and the Drive are combined. There is the Duchess of Pampotter, beginning to look a trifle old, a trifle hard about the mouth, a trifle lined about the eyes, but still splendidly handsome and "bred" looking, leaning back in her barouche, steeped in sable to her lips, and looking at everyone she passes in that provokingly calm supercilious way. People say her colour comes and goes, and her eyes brighten and her heart beats, when Lord Hustington approaches her; but Lord Hustington is at Nice just now, and the Duchess is alone. That is true consolation to Mrs. Lypey, who is just passing by in the rank of vehicles, and she grows alternately cold and hot under her Grace's calm stare. Something is not quite right, Mrs. Lypey thinks, but what she cannot tell. Her coachman is as fat and her footman as tall, her horses as proud and her carriage as easy, as Lady Pampotter's, but yet she does not feel in her element. She cannot sit back in her barouche with grace, she cannot look easy or dignified, and sometimes it dawns on her forcibly that she is not half so happy as when Lypey was a corn-cutter at Islington and they used to come to Brighton from Saturday till Monday and drive up and down the Parade in a fly.

More equestrians in clouds. Men from the cavalry barracks, with long stirrup-leathers and depressed heels; men from the hunting shires, with short leathers, and their feet thrust home in the stirrup-irons; Mrs. Montmorency and Miss De Vere, from the Grove of the Evangelist, in yellow hair and light-blue habits and dirty kid gloves; Ellison—who used to be Ellason before he made his money in petroleum—on his clever cob; London gents on hacks from Leatherlost's and other stables; and riding-masters and pupils galore. Who does not know the Brighton hack, his weediness, his stringiness, his marvellous pace, between a shuffle, an amble, and a canter, and his camel-like powers of endurance? See the pedestrians in the most bewitching Tyrolese hats and tight-clinging skirts, for which the great Worth is responsible; see Polon[illegible] Thalasses and Demetrius Anaxandria fresh from Mincing Lane, and casting a glance of deepest meaning from their almond-shaped black eyes at the daughters of perfidious Albion; see the long-coated, dog-collared interpreters of matins and vespers at St. Beowulph's Church, where all is dusk, and incense, and crucifixes, and white-robed choristers, gliding silently along, elbowed and frowned at by the Reverend Silas Pott, of Ebenezer, in Wapshot's Buildings.

Brighton is dull "after dark;" for the theatre, though very pretty, is merely star-illuminated, and most of the temporary denizens have seen the stars under better circumstances; but in the morning it is radiant again. Then there are the pleasant dips at the baths, the charming lounge on the pier, the delicious canter on the Downs, with an occasional day with the Brighton harriers, or, better still, the Brookside pack, so capitally hunted by that capital specimen of English prowess, Mr. Saxby. Then the shops, with an extra ten minutes given to Silvani's and Harrington's windows, the newspapers at the club, or Wakeling's or Trencher's reading-rooms, and always, omnipresent, in contrast to the fog and the soot-laden atmosphere of London, the bright clear air and the fresh sea smell.

HEREDITARY GENIUS

This delightful book is altogether wrong in the matter of title. Clearly, a book that deals with the transmission of miscellaneous qualities as well as the transmission of genius, should be called a "Study of Heredity." Such is Mr. Galton's book in reality, and we have read every line with interest. It has been evidently a labour of love, and has all the freshness and raciness of an amateur's work, using the word in its good and not bad sense. The work is set in a key of enthusiasm which is maintained throughout. If Mr. Galton allows himself to be carried away by his theories here and there, we can easily pardon and sympathise with him. What is more fascinating than the contemplation of genius? People of even dull calibre glow and kindle over the lives of such men as Goethe, Defoe, Mendelssohn, Raffaelle, Cervantes, and their noble brotherhood, fondly hoping that their first-born will turn out to be the one person in a hundred thousand who, according to Mr. Galton's figures, becomes illustrious, or, at least, the one person in four thousand who becomes eminent.

Before dwelling upon the one or two facts which strike us most in Mr. Galton's work, we will give some account of the book itself. It is hardly necessary to say that the author firmly believes in the transmission of qualities, and in his introductory chapter begs us to test the impartiality of his statements by taking a dozen names from the most eminent in whatever profession and in whatever country we know most about, and trace out for ourselves their relations. We have tried this experiment, and certainly find, as a rule, that certain gifts run in certain families, and that the isolated genius or "eminent person" is an exception.

Mr. Galton's classification and notation may frighten a great number of readers, but they are simple enough. He divides the world into grades of natural ability, separated by equal intervals, and then groups his eminent and illustrious men into families. Accordingly, the somewhat formidable table on the cover means no more nor less than that the star represents some man or woman of genius; the F stands for father, the f for mother; the G for grandfather, the g for grandmother; the B for brother, the b for sister, and so on. Eminent men and women are then considered under the following heads:—Judges, Statesmen, Commanders, Literary Men, Men of Science, Poets, Musicians, Painters, Divines, Senior Classics of Cambridge, Oarsmen, and Wrestlers of the north country. We find that the parentage of distinguished sons and grandsons of judges is satisfactory, and there is abundant reason to conclude that the children of Lord Chancellors are much richer in natural gifts than those of the other judges. As instances are cited Earl Clarendon and the Hyde family, of whom three were English judges, one Welsh, and many distinguished in other ways; Earl Nottingham and the Finch family; Lord Erskine, whose brother was Lord Advocate of Scotland, and whose son was a judge, &c. We pass on to the literary men, and find nineteen in number who had no eminent relations. These are Cervantes, Defoe, Fichte, La Fontaine, Madame Genlis, Gibbon, Goldsmith, Jeffrey, Johnson, Montaigne, Montesquieu, Rabelais, Samuel Richardson, Rousseau, Sir W. Scott, Sydney Smith, Smollett, Sterne, and Voltaire.

A goodly list, but as Mr. Galton confines himself to the children born of wedlock, it is impossible to say how far he may be right in making out such lists. He tells us in a note, that the general result of his inquiries is such as to convince him that more than one-half of the great literary men have had kinsmen of ability; is it not likely that were the records of family history made public, many more distinguished kinships would come to light? In the list of men of science, eighteen eminent persons seem to have had no kinsmen of marked ability; whilst instances in support of our author's theory are very plentiful. A most remarkable one is that of the Jussieus, a family of botanists; and of the Herschels. In the first case we have three brothers, botanical geniuses, a nephew the greatest of all, and his son, on whom the mantle descended. In the latter we have, firstly, Sir William Herschel, the eminent astronomer; secondly, his sister, Caroline Herschel, a lady of considerable scientific attainments; thirdly, Sir John Herschel, his son, also famous as an astronomer, and one of the foremost philosophers of the day; fourthly, his two grandsons, Professor Alexander Herschel, a writer on meteorites, and Lieutenant John Herschel, who took charge of the expedition organised in 1863 by the Royal Society to observe the total eclipse of the sun. Musical gifts are also strongly hereditary in the family. With regard to poets and musicians, Mr. Galton is of opinion that they are generally a sensuous erotic race, exceedingly irregular in their ways of living, and that people with strong sensuous tastes go utterly astray and fail in life. Consequently, poets are seldom founders of families.

The inheritance of musical taste seems to be undeniable. The Bachs are a splendid example. There were more than twenty eminent musicians in the family, and Fétis's Dictionary of Musicians gives no less than fifty-seven of the name. In the very handy Brief Biographical Dictionary of Mr. Hole, there are but two. The Mozarts were extraordinarily gifted, and readers of Mozart's Letters can hardly doubt that his sister would have been almost as distinguished as himself, had she received equal advantage and stimulus. Palestrina's sons inherited their father's genius to a great extent. The four elder ones were musical composers, and the younger edited his works.

We now come to the list of painters. But why cite such familiar instances of distinguished kinsmen and kinswomen as the Bonheurs in our own time; or the Caraccis, the Van Eycks, the Vanderveldes? Vandyck's mother was skilful in embroidery, working out designs both of landscape and figures. Tintoretto's daughter acquired celebrity as a portrait painter. Marguerite Van Eyck was passionately devoted to painting. These instances are all the more noteworthy as very little reliable information is to be had concerning the female relations of great men.

In the chapter on Divines, Mr. Galton asserts that the influence of the female line is usually influential in qualifying a man to become eminent in the religious world. This seems reasonable, since women are by nature devout, fond of mystery, and self-sacrificing; they are, moreover, hindered both by education and circumstances from gaining that scientific habit of inquiry which so often opposes itself to blind belief. We are presented with a goodly list of eminent divines whose sons, brothers, fathers, and mothers were remarkably gifted; but they do not generally seem to have been founders of families, and, as a rule, had wretched constitutions. Mr. Galton ingeniously solves the problem—Why do the sons of saints so often turn out sinners? and we commend this chapter to the curious.

Having thus cursorily glanced at the plan of the work itself, we will dwell upon one or two points which strike us as being exceedingly pregnant and instructive. Those who have carefully examined the subject and have been brought to agree with the great physiologist Burdach—"that heritage has in reality more power over our constitution and character than all the influences from without, moral and physical,"—will be grateful to Mr. Galton for the facts he has accumulated, as well as for the opinions he has matured. Nothing can be apter than his remarks upon the celibacy of the priesthood, and the effect of religious persecutions in deteriorating the human race. It is well known that the Church selected, and still selects, her priests much as the State selects her soldiers, refusing the maimed, the halt, and the blind, and accepting only the physically strong and capable. Added to this, the social condition of the Middle Ages was so abominable, that men and women of superior natures flew to religious institutions for the sake of tranquillity. But the Church chose to exact celibacy from all who sought her refuge, and thus, to use Mr. Galton's words, selected the rudest portion of the community to be alone the parents of future generations. Again, consider the effect of religious persecutions. "The Church, having first captured all the gentle natures and condemned them to celibacy, made another sweep of her huge nets, this time fishing in stirring waters, to catch those who were the most fearless, truth-seeking, and intelligent in their modes of thought, and therefore the most suitable parents of a high civilisation, and put a strong check, if not a direct stop to their progeny." That this is no exaggerated statement, history bears ample witness. Take, for instance, such a book as Mr. Smiles's admirable history of the Huguenots in England. After the Revocation of the Edict of Nantes, Vauban writes that "France has lost a hundred thousand inhabitants, sixty millions of money, nine thousand sailors, twelve thousand tried soldiers, and its most flourishing manufacturers." Fénelon writes later—"The cultivation of the soil is almost abandoned: all industries languish. France has become but as a huge hospital without provisions." And what was the effect of the French immigration upon our own country? Just this: the exiled Huguenots were for the most part industrious, intelligent, and high-minded men, who not only stimulated and in a measure created British industry, but also influenced our political and religious history. We quote Mr. Smiles's words; and anyone who turns over the pages of his book can judge for himself whether or no our policy proved expedient as well as humane. Amongst the descendants of "the gentle and profitable

* "Hereditary Genius: An Inquiry into its laws and consequences." By Francis Galton, F.R.S. Macmillan.

strangers" may be named Grote, the historian, the Martineaus, the Archbishop of Dublin, Austin Layard, the brothers Newman, and many others equally familiar.

No one can travel in Spain, or study the course of Spanish contemporary history, without doubting that the policy of the Inquisition has caused woeful deterioration—both physical and intellectual—of the present race. For three hundred centuries that unhappy country was drained of free-thinkers at the rate of a thousand a year. Is it little wonder that the actual state of things is so lamentable? The present writer was talking to an intelligent and cultivated Spaniard in Madrid three or four years ago about the then impending revolution, and he shook his head slowly and significantly. "It is not that opportunities are wanting," he said; "but the men to use them. I know that the struggle is at hand; but I despair because the people are not ready."

Mr. Galton's chapter on the English peerage is worth consideration. A very careful inquiry has brought him to the conclusion that the extinction of so many noble families is to be attributed to the custom of marrying heiresses. Obviously, an heiress who is the sole issue of a marriage might be expected to have fewer children than the woman who has many brothers and sisters. Infertility, Mr. Galton urges, must be hereditary in the same way as other physical attributes; in any case, the facts he states are highly interesting and suggestive. "My table," he says, "shows how exceedingly precarious must be the line of a descent from an heiress, especially when the younger sons are not apt to marry. One-fifth of the heiresses have no male children at all: a full third have not more than one child; three-fifths have not more than two. It has been the salvation of many families that the husband outlived the heiress whom he first married, and was able to leave issue by the second wife." We have not space to quote the table.

THE LATE EARL OF DERBY

On the whole, then, this is a book to read. In Dr. Elam's recent work ("A Physician's Problems"), he propounds the following problem:—Apart from the possession of money, houses, and land, which do not endure, what do we derive from our parents that is permanent and inalienable—that determines our temperament and constitution, our proclivities to death and disease, to virtue or vice, to dulness, mediocrity, or genius—in short, our entire intellectual and moral nature, no less than our physical organisation? He proceeds to demonstrate that the career of a child for good or evil, for personal advantages or the contrary, for intellect or imbecility, and even for moral tendencies, if not written before his birth, "with pen of adamant on tablet of brass," is at least marked out for him by boundary lines, which to overpass, if unfavourable, will require more than ordinary courage, resolution, and a concurrence of favourable circumstances not often to be looked for.

To deal with Dr. Elam's essay as it deserves to be dealt with, requires much more science than ordinary readers possess, but unaided common sense will see the force of his leading arguments. We have, alas! but too requent testimony to the scriptural phrase "the fathers have eaten sour grapes and the children's teeth are set on edge," in our police and criminal reports. When Dr. Elam scientifically states that all moral qualities are transmissible from parents to child, with this important addition, that in the case of vicious habits or tendencies, the simple practice of the parents becomes the passion, the mania, the all but irresistible impulse of the child, we are placed face to face with the chief difficulty in the repression of crime. This is apart from our subject, but as Mr. Galton's work is really a study of heredity *pur et simple*, his readers will do wisely to consult the physiologist's researches as well.

SPOTTISWOODE & CO.
NEW-STREET SQUARE, LONDON, E.C.

ART. IV.—*Hereditary Genius: an Inquiry into its Laws and Consequences.* By FRANCIS GALTON, F.R.S., &c. 8vo. London: 1869.

'WE often hear of hereditary talents, hereditary vices, and 'hereditary virtues; but whoever will critically ex-'amine the evidence will find that we have no proof of their 'existence. The way in which they are commonly proved is 'in the highest degree illogical; the usual course being for 'writers to collect instances of some mental peculiarity found 'in a parent and in his child, and then to infer that the pecu-'liarity was bequeathed. By this mode of reasoning we might 'demonstrate any proposition; since in all large fields of in-'quiry there are a sufficient number of empirical coincidences 'to make a plausible case in favour of whatever view a man 'chooses to advocate. But this is not the way in which truth 'is discovered; and we ought to inquire not only how many 'instances there are of hereditary talents, &c., but how many 'instances there are of such qualities not being hereditary. 'Until something of this sort is attempted, we can know 'nothing about the matter inductively; while, until physio-'logy and chemistry are much more advanced, we can know 'nothing about it deductively. These considerations ought to 'prevent us from receiving statements which positively affirm 'the existence of hereditary madness and hereditary suicide; 'and the same remark applies to hereditary disease; and with 'still greater force does it apply to hereditary vices and here-'ditary virtues, inasmuch as ethical phenomena have not been 'registered as carefully as physiological ones, and therefore our 'conclusions respecting them are precarious.'*

This passage, from the work of a writer of vast knowledge and acknowledged intellectual power, is chiefly remarkable as affording an instance of the extraordinary manner in which love of paradox, and an aversion for the commonplace, and a desire to say something new on all subjects, will sometimes divert a mind of so high a class from the straightforward but trodden road of truth. Mr. Buckle's determination not to adopt the ordinary belief in hereditary influences in human physiology was akin to the determined scepticism with which Cornewall Lewis, not a dissimilar spirit, set himself to reject all ancient record outside the pages of classical and Bible history, and all evidence that human beings had attained the age of a century. We quote it now, not in any disposition to triumph over the obstinate incredulity which was Mr. Buckle's weakness, as over-credulity is that of others, but in order to introduce the decisive answer with which Mr. Darwin disposes of all such negative theories, and establishes on scientific grounds the doctrine already so firmly rooted in popular belief of 'heredity of talent,' or rather of mental conformation.†

'Some writers, who have not attended to natural history, have attempted to show that the force of inheritance has been much exaggerated. The breeders of animals would smile at such simplicity; and, if they condescended to make any answer, might ask what would be the chance of winning a prize if two inferior animals were paired together? They might ask whether the half-wild Arabs were led by theoretical notions to keep pedigrees of their horses? Why have pedigrees been scrupulously kept and published of the short-horn cattle, and more recently of the Hereford breed? Is it an illusion that these recently improved animals safely transmit their excellent qualities even

* Buckle, 'History of Civilisation,' vol. i. ch. 4.

† We are bound to add, that Mr. Buckle's incredulity in this matter has been shared by minds of a more philosophical order than his. The 'school of Monpellier,' in French physical science, was opposed to the doctrine of 'heredity' as well as to other notions implying the existence of congenital mental peculiarities. See the writings of two of its distinguished pupils, Lourdat and Virey, commented on, and answered, in the remarkable work of Prosper Lucas, 'Traité physiologique et 'philosophique de l'hérédité,' 1847.

when crossed with other breeds? Have the short-horns, without good reason, been purchased at immense prices and exported to almost every quarter of the globe? . . . In fact, the whole art of breeding, from which such great results have been attained during the present century, depends on the inheritance of each small detail of structure. But inheritance is not certain; for if it were, the breeder's art would be reduced to a certainty, and there would be little scope left for skill and perseverance.'

After giving some remarkable instances of hereditary personal marks and deformities, Mr. Darwin proceeds:—

'When we reflect that certain extraordinary peculiarities have thus appeared in a single individual out of many millions, all exposed in the same country to the same general conditions of life, and, again, that the same extraordinary peculiarity has sometimes appeared in individuals living under widely different conditions of life, we are driven to conclude that such peculiarities are not directly due to the action of the surrounding conditions, but to unknown laws acting on the organisation or constitution of the individual; that their production stands in scarcely closer relation to the condition than does life itself. If this be so, and the occurrence of the same unusual character in the parent and child cannot be attributed to both having been exposed to the same unusual conditions, then the following problem is worth consideration, as showing that the result cannot be due, as some authors have supposed, to mere coincidence, but must be consequent on the members of the same family inheriting something in common in their constitution. Let it be assumed that in a large population a particular affection occurs on an average in one out of a million, so that the *à priori* chance that an individual taken at random will be so affected is only one in a million. Let the population consist of sixty millions, composed, we will assume, of ten million families, each containing six members. On these data, Professor Stokes has calculated for me that the odds will be no less than 8,333 millions to one that in the ten million families there will not be even a single family in which one parent and two children will be affected by the peculiarity in question. But numerous cases could be given, in which several children have been affected by the same rare peculiarity with one of their parents; and in this case, more especially if the grandchildren be included in the calculation, the odds against mere coincidence become something prodigious, almost beyond calculation.' *

Mr. Darwin here vindicates the popular belief in the heritable character of physical peculiarities in a manner which clenches, as it were, the demonstration, by showing that an ingenious and complicated art has been created and carried to a high pitch of perfection, is based on no scientific principle—for no philosopher has as yet shown, or even indicated, the latent causes or laws of such transmission from parent to offspring—but simply on experience as familiar to the ancients as to ourselves; as familiar to one race of mankind as to another; as familiar to the cottage dame who registers the sayings and doings of the families of her gossips, as to the antiquary who traces family features and coincidences in the history of the Bourbons, or the Stuarts, or in the pages of the British peerage. The whole subject, in the impressive words of Sir Henry Holland, forms only one chapter, and as yet a dark one, in the philosophy of 'the great mystery of generation. The transmission, not merely of life, but of likeness, from parents to offspring, involves and includes every question on the subject. It would be futile to raise a difficulty as to a part, when the whole is inaccessible to our inquiry. While we find cause for wonder at the transmission of resemblances from parent to offspring, we must admit the wonder to be equal that there should be ever deviation from this likeness, and that such deviation should be so little governed by any apparent rule or law. The one case is in reality as great a miracle to our understanding as the other.'† And hence, to recur once more to the language of Mr. Darwin, 'we are led to look at inheritance as the rule, and non-inheritance as the exception.'

* Variation of Animals and Plants, vol. ii. ch. 12.

† Medical Notes and Reflections.

f.48r

Before we proceed to the more direct purpose of our inquiry, let us, by way of giving an instance which shall illustrate both the transmission of remarkable physical peculiarities and the importance which attaches to its investigation, cite a remarkable episodical passage in Mr. Galton's inquiries. Nothing is more familiar to our ordinary experience and comment, quite irrespective of philosophical research, than the notion that fertility is hereditary in particular families, especially among the females. That to marry into such or such a family is a probable way to insure a numerous issue, is what we may call elementary knowledge of the gossip order. Now if the virtue of fecundity be hereditary, the contrary defect, sterility, is certainly likely to be so likewise. And Mr. Galton, remarking, as others have done, the notorious fact of the rapid extinction of British peerages, was led to suggest a cause for it which had not, so far as we are aware, been noticed before, and which seems to go some way towards accounting for it. The subjects chosen for his analysis in this instance are the descendants of thirty-one judges who obtained peerages, 'and who last sate on the Bench 'previous to the reign of George IV.'

'In order to obtain an answer to these inquiries, I examined into the number of children and grandchildren of all the thirty-one peers, and into the particulars of their alliances, and tabulated them; when, to my astonishment, I found a very simple, adequate, and novel explanation of the common cause of extinction of peerages stare me in the face. It appeared in the first instance, that a considerable proportion of the new peers and of their sons married heiresses. Their motives for doing so are intelligible enough, and not to be condemned. They have a title, and perhaps a sufficient fortune, to transmit to their eldest son; but they want an increase of possessions for the endowment of their younger sons and their daughters. On the other hand, an heiress has a fortune, but wants a title. Thus the peer and heiress are urged to the same issue of marriage by different impulses. But my statistical lists showed, with unmistakable emphasis, that these marriages are peculiarly unprolific. We might, indeed, have expected that an heiress, who is the sole issue of a marriage, would not be so fertile as a woman who has many brothers and sisters. Comparative infertility must be hereditary in the same way as other physical attributes; and I am assured it is so in the case of the domestic animals. Consequently, the issue of a peer's marriage with an heiress frequently fails, and his title is brought to an end.'

After proceeding to illustrate these propositions by a list of every case in the first or second generation of the law lords, taken from the English judges (who last sate on the Bench previous to the close of the reign of George IV.), where there has been a marriage with an heiress or a co-heiress, he sums up the result as follows:—

'1. Out of thirty-one peerages, there were no less than seventeen in which the hereditary influence of an heiress or co-heiress affected the first or second generation. This influence was sensibly an agent in producing sterility in sixteen out of these seventeen peerages, and the influences were sometimes shown in two, three, or more cases in one peerage. 2. The direct male lines of no less than eight peerages, viz. Colepepper, Harcourt, Worthington, Clarendon, Jeffreys, Raymond, Trevor, and Rosslyn, were actually extinguished through the influence of the heiresses; and six others, viz. Shaftesbury, Cowper, Guilford, Parker, Camden, and Talbot, had very narrow escapes from extinction owing to the same cause.'

Mr. Galton traces the same cause of decay through th family history of statesmen-peers, and proceeds:—

'The important result disclosed by these facts, that intermarriage with heiresses is a notable agent in the extinction of families, is confirmed by more extended inquiries. I devoted some days to ransacking Burke's volumes on the extant and on the extinct peerages. I first tried the marriages made by the second peers of each extant title. It seemed reasonable to expect that the eldest son of the first peer, the founder of the title, would marry heiresses pretty frequently; and so they do, and with terrible destruction to their race . . .

'I find that among the wives of peers, 100 who are heiresses have 208 sons and 206 daughters; 100 who are not heiresses have 336 sons and 284 daughters . . . One-fifth of the heiresses have no male children at all; a full third have not more than one child (male child,

UNIVERSITY COLLEGE LONDON GALTON PAPERS 120/5

F. 48 v

we suppose, though this is not specified); three-fifths have not more than two. It has been the salvation of many families that the husband outlived the heiress whom he first married, and was able to leave issue by a second wife.' (Pp. 131–138.)

We will contrast the results thus obtained with those produced by a little investigation of our own. Sovereign princes are, as a rule, unlikely to marry heiresses. This particular impediment to fertility is not likely to exist among them. They usually intermarry with females of their own hereditary rank, belonging, therefore, to families free, like their own, from this special cause of sterility. Now a slight examination of the Almanac de Gotha gives us, for twenty-nine European sovereigns (nearly all those of the old reigning houses) ninety-six brothers and sisters (of whole blood), or nearly three apiece. In other words, four children is the average issue (as far as these figures show) of the marriage of a hereditary sovereign. But the number is a good deal larger if, as we suspect, the Almanac is not particular in recording the names of royal brothers and sisters who died infants. Putting the general result at five births to a marriage, we arrive at the fact that the number of births in sovereign houses is greater than the average in the most prolific country of Europe (4·8 in Belgium, according to Maurice Block). And as there are many circumstances connected with Court life which would naturally militate against the multiplication of children, we may pretty fairly infer that the cause of this phenomenon is the hereditary prolificness of the families which thus intermarry.

But if incredulity like that of Mr. Buckle on the subject of hereditary qualities is very unphilosophical, it is necessary, nevertheless, to be on our guard against the opposite extreme. The predisposition of most writers is to the credulous side. They find instances of 'inheritance' everywhere. In the pursuit of their favourite theory they neglect the thousand causes of deviation which modify and interfere with the results of nearness of blood. There is no limit to the capacity of philosophers of this description for admitting extraordinary stories. No old nurse, who descants on the wonderful congenital signs and tokens, physical and mental, which she has noticed in the course of her business, is half so romantic on the subject as an anthropologist fairly mounted on his hobby. No wonder, therefore, if works of history and philosophy are full of the most absurd instances, based on no evidence at all or the most insignificant, of marvellous likenesses and transmitted specialties of temper and character; or that the most extravagant political theories are every day founded on certain supposed congenital qualities of people whose ancestors are asserted, on very shadowy evidence, to have been once upon a time Saxons or Celts, Latins or Sclaves, in countries where intermixture by marriage has prevailed for many centuries. We take up, almost at hazard, a specimen of this kind of popular triviality from a recent publication, in which we have found, nevertheless, some matter of interest and value on this as well as other cognate subjects. Dr. Elam, in 'A Physician's Problems,' cites as a proof of hereditary tallness 'the numerous gigantic figures, 'both of men and of women, met with in Potsdam, where for 'fifty years the guards of the *late* Frederick William of Prussia 'were quartered.' Not having ourselves remarked this tendency to lofty stature in the civil population of Potsdam so far as our observation has extended, and remembering that 'the 'late King Frederick William,' if by that name is meant the sovereign who delighted in gigantic guardsmen, has been dead a hundred and thirty years, we must be content to wait for farther elucidation. In the meantime we quote a still more astounding statement from the pages of that repertory of marvels, the 'Anthropological Review.' 'Two gentlemen were 'introduced to each other who had such an extraordinary re-'semblance that a stranger could hardly distinguish the one

f. 49r

'from the other. Upon tracing their genealogy back, it was 'found that they were descended from the same ancestor of 'five hundred years before. No intermarriage had occurred 'in the interval, one line having lived in England and the 'other in Canada!' From whence we learn, among other matters, that Canada has been peopled by Europeans for five hundred years. We cannot refrain from drawing on the stores of Dr. Elam for another specimen of the kind of evidence which the partisans of heredity think it worth their while to adduce. It relates to a young man, born and bred in France, who had never heard English spoken until he came to England, where he had lived only two years. This gentleman, to the surprise of his interlocutor, was heard to pronounce the name 'Thistlethwayte' accurately and readily, a name which, Dr. Elam truly observes, no thoroughbred Gaul who ever lived could possibly articulate. It turned out that the speaker had enjoyed the advantage of an Irish grandmother on the mother's side, whom he had never seen! Such idle frivolities as these—and most works on the subject are full of them—go some way to account for the scepticism of judgments like that of Mr. Buckle, and tend to lower the prevalent philosophical spirit of this nineteenth century to that which characterised the early days of the Royal Society, when the book of nature was like a newly opened volume studied by children.

But we have detained our readers too long from Mr. Galton's own exposition of the problem which he proposes to solve. The proof of the inheritableness of corporeal qualities is no doubt easier than that of mental; but the fact is not more certain. The phenomena of inherited insanity alone would, unhappily, leave no doubt on this point in the mind of any unprejudiced observer. 'Some writers,' to quote once more Mr. Darwin, 'have doubted whether those complex mental attributes on 'which genius and talent depend, are inherited, even when 'both parents are thus endowed. But he who will read Mr. 'Galton's able paper* on hereditary talent will have his 'doubts allayed.'

'I propose (says Mr. Galton) to show in this book that a man's natural abilities are derived by inheritance, under exactly the same limitations as are the form and physical features of the whole organic world. Consequently, as it is easy, notwithstanding those limitations, to obtain by careful selection a permanent breed of dogs or horses gifted with peculiar powers of running or of doing anything else, so it would be quite practicable to produce a highly-gifted race of men by judicious marriages during several consecutive generations. I shall show that social agencies of an ordinary character, whose influences are little suspected, are at this moment working towards the degradation of human nature, and that others are working towards its improvement. I conclude that each generation has enormous power over the natural gifts of those that follow, and maintain that it is a duty we owe to humanity to investigate the range of that power, and to exercise it in a way that, without being unwise towards ourselves, shall be most advantageous to future inhabitants of the earth. . . . The general plan of my argument is to show that high reputation is a pretty accurate test of high ability; next to discuss the relationships of a large body of fairly eminent men—namely, the judges of England from 1660 to 1868, the statesmen of the time of George III., and the Premiers during the last hundred years—and to obtain from these a general survey of the laws of heredity in respect to genius. Then I shall examine, in order, the kindred of the most illustrious commanders, men of literature and of science, poets, painters, and musicians, of whom history speaks. I shall also discuss the kindred of a certain selection of divines and of modern scholars. Then will follow a short chapter, by way of comparison, on the hereditary transmission of physical gifts, as deduced from the relationships of certain classes of oarsmen and wrestlers. Lastly, I shall collate my results, and draw conclusions. . . . There is one advantage left to a candid critic in my having left so large a field

* The paper thus referred to appeared in 'Macmillan's Magazine' for 1865, and has been expanded into the work now before us.

untouched; it enables me to propose a test that any well-informed reader may easily adopt who doubts the fairness of my examples. He may most reasonably suspect that I have been unconsciously influenced by my theories to select men whose kindred were most favourable to their support. If so, I beg he will test my impartiality as follows: Let him take a dozen names of his own selection, as the most eminent in whatever profession and in whatever country he knows most about, and let him trace out for himself their relations. It is necessary, as I find by experience, to take some pains to be sure that none even of the immediate relatives, on either the male or female side, have been overlooked. If he does what I propose, I am confident he will be astonished at the completeness with which the result will confirm my theory. I venture to speak with assurance, because it has often occurred to me to propose this very test to incredulous friends, and invariably, so far as my memory serves me, as large a proportion of the men who were named were discovered to have eminent relations as the nature of my views on heredity would have led me to expect.' (Pp. 2–5.)

The system of proof thus suggested is wrought out by Mr. Galton, first, by a double 'classification' of men of note—'according to their reputation,' and 'according to their natural 'gifts.' As to these last, he maintains that 'analogy clearly 'shows there must be a fairly constant average mental capacity of the inhabitants of the British Isles, and that the 'deviations from that average—upwards towards genius and 'downwards towards stupidity—must follow the law that 'governs deviations from all true averages.' He tabulates 'ability' in a very curious manner, dividing mankind into a certain number of 'grades,'—for which we must refer the reader to the work itself (pp. 14–35) as the demonstration could not be made intelligible by extracts. One of his casual observations as to the abundance of unrecognised ability in the world, is worth noting from its conformity with general experience, though not bearing directly on his demonstration:—

'I may mention a class of cases that strikes me forcibly as a proof that a sufficient power of command to lead to eminence in troublous times, is much less unusual than is commonly supposed, and that it lies neglected in the course of ordinary life. In beleaguered towns, as for example during the great Indian mutiny, a certain type of character very frequently made its appearance. People rose into notice who had never previously distinguished themselves, and subsided into their former way of life, after the occasion for exertion was over; while during the continuance of danger and misery, they were the heroes of their situation. They were cool in danger, sensible in council, cheerful under prolonged suffering, humane to the wounded and sick, encouragers of the faint-hearted. Such people were formed to shine only under exceptional circumstances. They had the advantage of possessing too tough a fibre to be crushed by anxiety and physical misery, and, perhaps in consequence of that very toughness, they required a stimulus of the sharpest kind to goad them to all the exertions of which they were capable.' (P. 48.)

This preliminary work completed, Mr. Galton proceeds to furnish us with the 'tables' which constitute the chief result of his very laborious, if not to us quite conclusive, researches. For his plan of 'notation of kindred,' which is the key of this part of the book, we can only refer the reader to the book itself (p. 50). It must be mastered before the reader can pursue the subject. He then 'tabulates' the judges of England since the restoration of 1660, statesmen, commanders, literary men, men of science, poets, musicians, painters, divines, not to mention certain more eccentric specimens of greatness, namely, senior classics of Cambridge, 'oarsmen,' and 'wrestlers'; assigns to each name in his lists all the distinguished relatives whom he can find who come within the limits of his system of notation, and thence draws the general conclusion of his labours. 'The 'theory of hereditary genius, though usually scouted,' he says in his preface, 'has been advocated by a few writers in past as 'well as in modern times. But I may claim to be the first to 'treat the subject in a statistical manner, to arrive at numerical 'results, and to introduce the "law of deviation from an

f.50r

"'average" into discussion on heredity.' Now, for reasons already given, we must differ from Mr. Galton at the outset on one point, which has not been without importance in his manner of dealing with the subject. So far from the doctrine of the influence of heredity on genius (using this last word in the loose sense in which Mr. Galton is here using it, as to which more presently) being 'usually scouted,' we imagine that there is no doctrine more usually admitted. Among philosophers there may be a few paradoxical Buckles; among mankind in general there is, as we have said, no appearance of doubt on the subject. That such and such a person belongs to a 'clever 'family' is as perfectly received a mode of expression as that he belongs to a tall family or a fair family; and no one doubts the influence of the congenital tendencies common to the race in the one case more than the other. Now it is this singular misconception on Mr. Galton's part—this idea that he has the popular prejudice to fight against, instead of having it fighting on his side—which has induced him very much to overstate his case, and to press as evidence on his side many a circumstance which will not bear the stress laid on it. For nothing is clearer than that the children of clever persons have advantages over others in the way of education, emulation, conscious and unconscious imitation, which are quite distinct from any supposed tendency in the blood itself. Dr. Elam, indeed, carries this notion so far as to believe that powers acquired by industry in one generation become hereditary in the next. 'The de-'velopment of the intellectual faculties of the parents' (as he expresses it) 'renders the children more capable of receiving 'instruction.' Without going this length, let us merely put the case of two children of equal abilities, born respectively from an inferior and a superior couple in point of intellect. The strongest advocate of 'heredity' must surely admit that this is not an impossible case, allowing for the doctrine of 'variation.' In such a case we may be quite sure that the latter—the child of clever parents—has a much better chance of being well instructed, and through such instruction of becoming 'eminent,' and filling a place in statistical lists after Mr. Galton's fashion, than the child of the other pair. Here, then, is one great cause which evidently militates against the compilation of any such lists of more than a very general and superficial value.

The next qualification of the doctrine of hereditary talents as proved by statistics, is this: that in a great number of cases a father who has made his way in the world has advantages for bringing forward his sons and other relatives in the career of life beyond what are possessed by others who have not thriven in the same way. A successful family, therefore, means a family of which the members have taken good care of themselves and of each other, rather than one of which the members one by one achieved success according to their deserts. 'I 'have shown,' says Mr. Galton, 'that social hindrances cannot 'impede men of high ability from becoming eminent. I shall 'now maintain that social advantages are incompetent to give 'that status to a man of moderate ability.' Now this, begging our author's pardon, is a position which it is possible no doubt to maintain, but utterly impossible to prove. In fact the ordinary experience of every day abundantly confutes it. We may work out tables (as Mr. Galton has done) of men who have attained certain positions in life—judges, bishops, and so forth—and then we may point to them as instances of 'ability.' But in point of fact we know that both judges and bishops, especially the latter, do constantly attain these positions without any display of *exceptional* ability at all. They reach them by a thousand turns of fortune and vicissitudes of favour. Any classification which includes all these as 'eminent' men is objectionable from extreme generality. Any reasoning which deduces from such classification a theory of hereditary ability

is subject to the double fallacy, first of assuming eminence as a test of ability, which is at best a most imperfect one; secondly of selecting one presumed cause of success—peculiarity of blood—where many more obvious and probable causes of success are discoverable.

The truth is that the success in life which leads to distinction is due to two causes, the one consisting in natural aptitude or ability, the other in surrounding circumstances. Even if it be possible to refer the former condition to the laws of descent, who shall attempt to calculate the variations of the latter? Who shall say how often talents of a high order are repressed by penury, by the want of education, by the drudgery of life? We cannot agree with Mr. Galton that men endowed with a certain amount of genius always force their way to the front ranks of society. For one who succeeds, a hundred, perhaps not inferior in natural gifts, fail and perish by the way. Like the seed of the sower, much of it falls on rocky ground.

'The world has never known its greatest men.'

And if this be true in one sense, it is not less certain that many of those whose names are rescued from oblivion owe their celebrity to favourable opportunity, to patronage, or family influence, or to what is termed good fortune, quite as much as to their natural gifts. Mr. Galton asserts, taking the names contained in the 'Men of the Day' for his text, that in this country about one man in 4000 rises to eminence. But to prove ~~anything~~ his point he should show that the nameless majority start from the same ~~point or~~ level as the small minority who leave a name behind them. That is notoriously not the case.

Let us make our meaning clearer by a very simple instance. There is no part of his labours on which Mr. Galton relies with so much evident complacency as the analysis of the relationship of the 'judges of England between 1660 and 1865.' They form, he says, 'a group peculiarly well fitted to afford a 'general outline of the extent and limitation of heredity in 'respect of genius. A judgeship is a guarantee of its posses-'sor being fitted with exceptional ability. . . . In other 'countries it may be different to what it is with us; but we all 'know that in England the Bench is never spoken of without 'reverence for the intellectual power of its occupiers.' Sweeping assertions: but let these pass, and let us assume, as perhaps may safely be assumed, that to be the parent, child, or relative of a judge is to be the parent, child, or relative of a clever man, in a majority of cases sufficient to constitute a rule. That the relatives of clever men are clever is therefore proved in this way: about 112 judges (it is difficult to give the number exactly, as from Mr. Galton's method of compiling his lists there is a good deal of repetition) have had somewhat more than 250 relatives, ascending, descending, and collateral, sufficiently famous to appear in Mr. Galton's catalogue; though, it must be confessed, he seems to be a little hard driven for instances when he resorts to such specimens of intellectual power as 'General Sir William Draper, the well-'known antagonist of Junius,' and 'Queen Anne,' whom her Hyde descent places in the category. But, on looking a little closer, a specialty soon makes itself observed, which throws a considerable shadow of doubt over the whole exemplification. Out of these 250 clever relations of judges more than 100 have been lawyers themselves. Now, unless we are to assume, not only that talent is hereditary, but that the special talent of the lawyer is hereditary also, this is certainly rather a startling result of the general doctrine. And it does in truth point out distinctly how small a share hereditary talent—of which we do not in the least deny the reality—bears in the total mass of the causes which lead to worldly success. For every one knows that the law is among the most hereditary professions. And judges have a somewhat better chance of pushing on their sons in their own profession than other lawyers have. The

favour of a father cannot secure a continuance of briefs to a man who is positively a fool, but short of this it can do a great deal. One of the earliest names in Mr. Galton's list of judges is that of Atkyns. There have been four judges of the name and (let us just note in passing) nobody, except a law student or a painstaking county antiquary, ever heard more than the name of either of them. These Atkyns are credited with seven or eight remarkable relatives, but of these there is only one who was not a lawyer, and he was reader of Lincoln's Inn. The whole list has the unmistakable character of a snug little family party of jobbers, rather than that of a galaxy of genius. The combined houses of Finch and Legge—somewhat better known to fame—furnish us with eight distinguished lawyers against two distinguished in other ways, although one of these —' Dr. William Harvey, discoverer of the circulation of the ' blood '—is forced into the list, only under the somewhat far-fetched denomination of ' grandmother's nephew to Sir Heneage ' Finch,' and that ' doubtful.' The Lyttletons count six lawyers against one solitary personage qualified as ' Speaker of the ' House of Commons,' but who was probably in his youth a lawyer also. Now it is surely unnecessary for us to repeat, that to suppose that all these successful wearers of the forensic gown owed their fame and achievements to certain congenital peculiarities of their race would be about as wild as to suppose that they derived them from the ' contagion of the ' gown ' itself.

The same important modifications of our author's general conclusion are deducible, more or less, from the lists which he gives of persons distinguished in other lines. Though there are few such close hereditary corporations as that of the law, yet the same trades' union spirit exists in many more. Taking up the chapter of literary men, we find that all the eminent members—forty-seven in all—of the races of Boileau, Roscoe, Grotius, Von Schlegel, Seneca, Swift, Taylor of Norwich, Taylor of Ongar—have been literary men; that is, they have one and all written books, good, bad, or indifferent. Now, did the principle of hereditary talent by itself account for the phenomena, these forty-seven would have dispersed themselves over a great variety of careers, and achieved their victories in many different ways. That they all took to writing is a proof, not that they were influenced by physiological causes predisposing them to write, but that they possessed certain tendencies that way from education, emulation, habit, or the simple necessity of living in the easiest mode to which the family connexion with booksellers invited them; and in this way many, who have really no claim to eminence at all, obtain from external circumstances a place in the list. When we are told by ancient chroniclers that there were eight tragic poets in the family of Æschylus, our rational conclusion is, not that there is a hereditary instinct for writing tragedies, but that writing tragedies had become in that family a hereditary occupation, which is a very different thing.

The same inherited professional aptitude, so to speak, is observable in a considerable, though less, degree in the families of divines. What small interest a clergyman may possess lies mostly in the Church itself, and his son takes to the university and the pulpit more naturally than another, and more easily attains in it something which in a catalogue may pass for distinction. Generally, it is observable that the hereditary character of professions, or a tendency to the caste system, has been in England a characteristic of quiet times, when generation succeeded generation with little disturbance of ordinary routine. It was very marked in the tranquil century from the English to the French Revolution; somewhat less so in the troubled days which preceded, when unaided talent and audacity had better chance of making their way to the front; much less so in our own time, when the spread of commercial wealth and that of general education have brought forward in the professions a more considerable proportion than formerly of new men.

UNIVERSITY COLLEGE LONDON
GALTON
PAPERS

F. 51v

But perhaps the most singular [instance in Mr. Galton's book of the propensity to push a favourite fancy to the wildest extremes—unless we are really to read it as a piece of grave irony on his own preceding lucubrations—is to be found in his chapters on 'oarsmen and wrestlers.'

'I propose (he commences) to supplement what I have written about brain by two short chapters on muscle. No one doubts but muscle is hereditary in horses and dogs, but humankind are so blind to facts and so governed by preconceptions, that I have heard it frequently asserted that muscle is not hereditary in man. Oarsmen and wrestlers have maintained that their heroes spring up capriciously, so I have thought it advisable to make inquiries into the matter. The results I have obtained will beat down another place of refuge for those who insist that each man is an independent creation, and not a mere function, physically, morally, and intellectually, of ancestral qualities and external influences.'

He accordingly 'tabulates' certain eminent oarsmen of Newcastle, where he assures us that 'a perfect passion for rowing 'pervades large classes,' and of North-country wrestlers; and shows, what no doubt is very easy to show, that there are a good many families in which rowing powers and wrestling powers are very common. But how far does this contribute towards proving his case of physical inheritance? Surely the propensity of son to imitate his father, and younger brother to rival his elder, in that line of muscular exertion of which each has the exhibition every day under his eyes, is quite sufficient to account for the phenomenon without more recondite natural causes. That a 'Clasper' should take to the oar on the Tyne, and a 'Tinian' go in on every occasion for the belt at Penrith, is not a matter involving deep physiological secrets. We should be easily convinced that a muscular parent often produces a muscular son by the law of nature. But that the law of nature implants in successive generations aptitude for exerting muscle in rowing or wrestling respectively, is a much rasher proposition. How far is this kind of classification to descend? Does stroke oar inherit his special quality from a paternal stroke oar? And are 'bows' for the most part in possession of pedigrees showing that their ancestors have regularly become glorious in the occupation of the same seat of the boat? The incredulous are not likely to be converted by exaggerations such as these.

Thus far we have been only endeavouring to show that Mr. Galton does rather harm than good to the opinion which he advocates, by the extreme minuteness of tabulation through which he seeks to establish it. When we are seriously told that the fact of a Lord Chancellor's son becoming a judge, or the son of a successful author writing a book, is to be taken as proof that 'est in juvencis, est in equis patrum virtus,' we naturally draw back from a conclusion so absurdly opposed to what we know from common study of life of the connexion of cause and effect in such matters. We remain, however, not the less convinced of the fundamental truth of the theory; nor do we deny, after witnessing the extraordinary success with which the statistical method has been applied to inquiries into human conduct and propensities, that the key of this enigma may not be found one day in statistics likewise; but we cannot say that Mr. Galton has discovered it, or approached to the establishment of a system, although he has succeeded in propounding much matter of interest in a desultory way.

But we are only on the threshold of a more important, and far more difficult problem. 'The arguments,' says Mr. Galton, 'by which I endeavour to prove that genius is hereditary, consist in showing how large is the number of instances in which 'men who are more or less illustrious have eminent kinsfolk.' Here the key-words of the inquiry are used in a permissible and popular, but certainly not a scientific, sense. What is the meaning of the word 'genius' and of the word 'eminent'? As

f. 52r

to the second, Mr. Galton, as we have seen, considers that for his purposes anyone who has attained a post of distinction, or become known to the public as a man of action or of letters, may be termed 'eminent.' Perhaps for the very general object of this inquiry such a rough definition may be admissible. As to the first, he deals with it in his ingenious chapters on the 'classification of men according to their natural gifts,' in which, as we have already said, he draws up a table of eight grades of natural ability, whether in respect of general powers or of special aptitudes; and endeavours to apply the conclusions at which he has arrived respecting hereditary influences to each. We prefer, for our own part, a looser and less pretentious mode of classification, being satisfied that this is one of the many subjects connected with 'anthropology' on which the commonest source of error is the attempt to particularise overmuch. And we must premise that we are about to use common words in their popular sense only, for the purpose of being commonly understood, and without too close attempt at philosophical accuracy.

When we speak of intellectual gifts, and especially such as we are disposed to think congenital and not acquired by industry, we commonly use three special words to designate them: Ability, Talents, Genius. By ability we think is commonly meant—and in that sense we intend ourselves to use the word—an adaptation of the mental faculties to achieve success in any task in which they may be engaged. By talents, a special adaptation of the faculties to succeed in this or that pursuit. Let us observe an eminent lawyer conducting a case, or, still more appropriately, conducting a succession of cases one after another. To do this in a masterly manner requires Ability of the very highest order. It does not necessarily require Talent of any kind. Oratorical talent is of value to a great lawyer, but it is not essential. The gift of memory (which we rank as a 'talent') is of still more value; but it is not absolutely essential either. The grasp of mind which seizes the bearings of a complicated question, the comprehensive intellect which follows out the motives and meanings and conduct of men into their remotest processes, the eye of generalship which perceives the exact moment at which certain resources are to be made available and certain dangers avoided; these constitute the higher qualities of the lawyer, and these, taken together, illustrate our notion of Ability. And Ability, in this lofty sense, is not less sure of supremacy in other great intellectual pursuits of a complicated kind; statesmanship, military command, the conduct of a bank, the management of a railway, the *quicquid agunt homines* of that order which taxes the faculties the most; than it is in courts of justice. Nor is sheer Ability, in truth, less predominant in literary pursuits. It maintains its place, as against those special faculties which we call talents, in perhaps a preponderating amount of instances. The historian, the philosopher, the essayist, nay, the man of science, where that science is not merely the fruit of special observation, but is of the higher and architectonic order, all these—supposing that their powers have not been so great as to receive by common consent the designation of Genius—triumph in their several departments through their ability. Nay, in the imaginative domain of poetry itself, the man of ability, if he is in earnest, can find and maintain a place of his own, if not in the highest rank at least among the foremost; as many a great work in English and still more in French and Latin verse remains to testify.

By Talent we mean a special aptitude, which may be consistent with very imperfect adaptation of the mental faculties to general use. Thus we speak of the talent of the artist, musician, arithmetician, poet, and so forth; often, to the surprise of the multitude, found in combination with general inferiority of intellect, sometimes almost with imbecility.

Ability, on the whole, plays a far greater part in the world than Talent; but it is to talent, nevertheless, that we are indebted for most of what ministers to our higher intellectual and spiritual enjoyment, and redeems life from its commonplace character.

Now assuming the theory of heredity to be well founded, it becomes a question of some nicety which of these two great qualities, ability or talent, comes most frequently within its law? A question not very easily answered, for both are frequently, so to speak, sporadic; manifesting themselves when sudden occasion calls for their development, and retreating, as it were, into obscurity as soon as the occasion for that development has passed by.

We believe it will be found, on the whole, that ability is more frequently hereditary than talent. Numerous cases of what commonly passes for hereditary talent are not really so. They arise from other causes than the influence of blood. They are especially subject to those influences which M. Lordat calls 'didactic.' If we find a father and a son possessed of the same special gift—that of playing the fiddle, for instance, or portrait-painting—the first and most obvious conclusion, as we have seen, would be, not that the son has 'followed his profession because he is instinctively drawn to it,' as Mr. Galton would have it, but that the son, possessing fair aptitude, has been carefully instructed in his particular line by the father, or has followed him by natural imitation. But no teaching by the father, no industrious imitation by the son, can convey Ability, in the sense in which we have used the word. And, therefore, when we find not only father and son, but whole families, as is often the case, distinguished for general ability, we have probably the most striking corroboration of the theory of heredity which can be found; far more cogent than those instances of mere special gifts, supposed hereditary, which most writers on the subject, including Mr. Galton as well as M. Lucas, are apt to employ as affording the readiest means of demonstration.

Our English society, so eminently aristocratic, furnishes a great repertory of facts of this description. No one who has read our histories—no one who has even studied the peerage—no one, indeed, who has mixed much in society—will be likely to question the fact that whole families are often so gifted in this way that it is an uncommon circumstance to find an absolutely commonplace personage among them. And another remarkable proposition we would venture to advance on the evidence of public notoriety only, without anticipating contradiction—no man of ability was ever the son of a couple of fools. But it is noteworthy also, in how very many cases this general high average of ability in a family seems to be accompanied with a powerlessness to rise still higher than that average. Every one of us—we appeal again to general observation—must be conversant with cases of families in which almost every member is clever, but not one very clever. None rises much above the average, though few or none seem to fall below it. And one remarkable instance of the kind we will cite from history as an explanation of our meaning rather than a proof, as single instances prove nothing. The Grenville family were for two or three generations a great power in our state. They had every opportunity of success in the line of politics which could be given to mortals. Several of them were 'distinguished,' almost all of them were 'able,' men. And a curious similarity of turn and temperament seemed to unite them all. But not one was *very* able. No Grenville ever said or did a thing particularly worth remembering, if we except the unlucky author of the 'American Stamp Act.' But when Grenville ability became crossed with the loftier qualifications inherited through the blood of Pitt, the result was of a very different order.

f. 53r

Perhaps it is no mere indulgence of the imagination to point out, as a singular instance of pertinacity of family type, the fortunes of the famous house of Fairfax. The Parliamentary general left no male issue; and, through marriage with the heiress of Colepepper, his collateral successor acquired a vast estate in Virginia, extending from the shores of the Potomac to the Alleghany. His descendants have multiplied in that region of the United States.* The present Lord Fairfax is a physician at Baltimore. Now, for these last two hundred years, they seem to have retained among them the leading qualities which characterised the chief of the name—a chivalrous turn of mind, military aptitude, and religious zeal. Irving attributes a good deal of the character of General Washington, as formed in early life, to his familiarity with his relations, the Fairfaxes, especially William, 'a man of liberal education and intrinsic 'worth,' who lived at Belvoir, the wooded promontory which projects into the Potomac immediately south of Mount Vernon. He is described as an eccentric personage, who had retired into the wilderness from some disappointment in love, but retained much of courtly manners. In the late civil war, all the numerous Fairfaxes adopted eagerly the side of the South, except one—and he was the officer detached by Captain Wilkes to arrest Mason and Slidell. The younger members took up arms, mostly as privates, and deeply imbued with that spirit of warlike puritanism of which Stonewall Jackson was as exalted a type as the original Thomas Fairfax himself. One, Eugene, fell at Williamsburg—'a devoted Christian.' Another, Randolph Fairfax, is the subject of a beautiful and touching piece of biography by the Reverend Philip Slaughter, of Richmond. He entered Jackson's army as a private in the Rockbridge Artillery at the age of eighteen. The letters of this gallant youth, chiefly to his mother, are models of simple, unconscious enthusiasm. He was of the Episcopal Church, and well known among his comrades—among whom a similar zealous temperament largely prevailed—by the well-worn New Testament which was his constant companion in the bivouac, after his prayer-book—only second in his estimation—had fallen into the hands of the Yankees with his luggage. He had no doubt of his cause, or of the means to ensure victory. 'I think,' he writes, 'the fate of the country is now in the hands of the 'praying people, and though I cannot see how or when, I 'believe God will certainly answer the prayers of His faithful 'people in the land.' He was killed on the spot by a fragment of shell, in the battle of Fredericksburg.

We cannot long pursue inquiries into the subject of hereditary mental powers and propensities in families, without entering on that obscure province of it which has lately received the name of Atavism—the tendency in individuals to reproduce the peculiarities, not of the parent, but of the grandparent, or some remoter ancestor. Observation on this head seems as yet to have failed, not only in laying down rules, but in accumulating sufficient examples for the elements of a theory. But that some such exceptional law of nature does exist seems to be the general opinion of physiologists. There is one rather remarkable instance of Atavism—if we shall not be deemed too fanciful in so terming it—in the annals of great European houses. No modern royal house has exhibited such a general preponderance of natural ability as that of Hohenzollern. But it seems to produce alternately—generation after generation—men of imaginative temperaments, not to say visionaries and eccentrics, and men of clear practical intellect. And thus the throne has been ascended, for nearly two centuries, alternately by an able ruler and by what the Germans call a Phantast. Frederick William the First, indeed, combined to a certain extent both characters. He was a man of strong mental energy, yet withal of an eccentricity approaching to madness, and full of strange crotchets. 'His wild imagination drove him hither 'and thither at a sad rate,' says his panegyrist Mr. Carlyle,

* See Mr. Clements Markham's recent Biography of the General, p. 409.

who considers that his mania for collecting and propagating tall guardsmen was a whim of genius. His son, Frederick the Great, was gifted with as keen and unencumbered an intellect as ever was owned by mortal. Frederick William the Second, who succeeded his uncle, was an *illuminé*, a dreamer of dreams, what would now be called a Spiritualist. His son, the warrior King of the Coalition against Napoleon, inherited the sound practical character of his grandfather, though of course much inferior in mental power. And the son of this last, the late Frederick William, reproduced the type of the Visionary—an amiable enthusiast, whose well-meant efforts at constructing a romantic mediæval Church and State in the clouds we all remember. At his death ensued another break in the direct succession; and we may dispense with pursuing the analysis farther.

Now, as we have already observed, we conceive talent—special aptitude of the mind for special purposes—to be undoubtedly heritable, though less frequently inherited than general ability. We will not dwell on the cases of families of painters, musicians, mathematicians, and the like, to which we have already referred as somewhat questionable, because they may really be due to a combination of other causes; still, these are too numerous and well authenticated to be disregarded as writers like Mr. Buckle would disregard them. Every one's knowledge of his neighbour's family history will more or less corroborate them. And so will popular tradition respecting great houses everywhere. The 'esprit des Mortemars' was proverbial in France. 'There is an old saying in our county 'of Cornwall,' observed the poet Lord Lansdowne, 'that a 'Trelawney never wanted courage, nor a Godolphin wit, 'nor a Granville loyalty.' There is among us at this day a ducal family of which the members in one generation, while in other respects persons of ability, are specially distinguished by one not very usual faculty—aptitude for numerical calculation; developing itself, according to their several temperaments, in lavish statistical argument on public affairs, in the mastery of complicated accounts, and at the whist-table. Another very distinguished house might be named, in which a predominant spirit of contrivance has displayed itself, through successive generations, in large speculations, in the 'management' of the cabinets of the last century, and in achievements of constructive taste. In cases like these, hereditary idiosyncrasy furnishes the only explanation, unless we are determined to regard them as accidental. A musician's son may take to music from education or imitation. But when a family talent for calculation or for construction takes wholly different directions in different members, this persistence of special qualities can only be accounted for, if at all, by physical causes: 'non hæc sine numine divûm eveniunt.'

This would perhaps be the natural stage of our inquiry for entering into the question of the relative physical influence of the father and mother in the formation of the character of children. But no part of the subject is as yet so obscure, or so little illustrated by anything like copious induction. The popular notion that distinguished men owe most to their mothers does not seem to meet with much favour from physiological inquirers. The only doctrine which has been boldly propounded on the subject seems to be that of the mystic Jacob Böhme, who reveals to us that in the formation of children men contribute the soul and women the intellect. Mr. Galton has arrived from his tables at the somewhat overdrawn conclusion that the ratio of distinguished kinships, through male and female respectively, is almost identical in his five first columns—namely, in the cases of judges, statesmen, commanders, men of literature, and men of science; and is as seventy to thirty, or more than two to one, in favour of the male side. 'The 'only reasonable solution which I can suggest,' he adds, 'besides that of inherent incapacity in the female line for transmitting the peculiar forms of ability we are now discussing is,

f. 54r

'that the aunts, sisters, and daughters of eminent men do not 'marry, on the average, so frequently as other women' (p. 328). The reasons for which he thinks may be, first, that such women do not so readily meet with mates up to their own mark; the second, less complimentary, that they are apt to be 'shy and odd,' and also 'dogmatic and self-asserting, and there-'fore less attractive to men.' He however infers from his records 'that it appears to be very important to success in 'science that a man should have a clever mother.' But inasmuch as he adds that he 'believes the reason to be that a child 'so circumstanced has the good fortune to be delivered from 'the ordinary narrowing partisan influences of home education' (p. 196), it is clear that he is here ascribing to the mother a didactic influence, and not that of blood,—a confusion from which his speculations are, as we have seen, not always exempt. He also collects from his statistical inquiries that 'the influence of 'the female line has an unusually large effect in qualifying a 'man to become eminent in the religious world;' and believes that 'the reasons laid down when speaking of scientific men 'will apply, *mutatis mutandis*, to divines' (p. 276). As he somewhat quaintly adds, 'it requires unusual qualifications, 'and some of them of a feminine cast, to become a leading 'theologian.'* If we were to venture on a very hesitating opinion, derived both from studying collections of facts like Mr. Galton's and from general observation, it would be this: that ability—general aptitude—comes frequently from the mother; talent—special aptitude—more generally from the father. But for this, again, there are reasons quite independent of any 'hereditary' theory. Mothers, in education, contribute much to form the general character; it is chiefly the father who directs the mind to its peculiar pursuit.

This question of sexual 'prepotence' we must however pass by, together with another still more curious ramification of it, rather indicated than pursued by Mr. Darwin in his sub-chapter on 'Inheritance as limited by sex'—the supposed descent of special peculiarities from female to female and male to male respectively. Let us return to the more general inquiry from which we have thus far digressed. If we admit as probable the conclusions which have thus far been suggested, namely, that Ability and Talent are both liable to be inherited, but the former more frequently so than the latter, what shall we say of that higher and finer quality to which we give the vague, but generally intelligible, denomination of Genius? Let us begin by coming to an accord as to the meaning of the name. In the first place, genius may be a kind of exceptional attribute of minds not altogether of the first order of endowment. The original, creative, faculty is in itself superior to all other qualities; but any particular development of it may be of an inferior class. Anyone possessed of a fine taste for music can readily distinguish between genius in a composer and mere talent. But, unless we are misinformed on the subject, there are composers of real genius who have, nevertheless, made less mark in the musical world than others not so inspired. So in literature, which affords perhaps the readiest examples. We often, and truly, speak of works of genius, still more often perhaps of writers as possessing genius, without intending thereby to express any very high amount of estimation. They have the ethereal fire which renders them a different order of beings from other men; but they have misused it, or neglected it, or possessed it only in limited

* If, however, eminent divines have as a rule been fortunate in their mothers, it does not appear that they are equally so (in all respects) in their wives:—'The frequency with which the divines become widowers 'is a remarkable fact, especially as they did not usually marry when 'young. I account for the early deaths of their wives on the supposi-'tion that their constitutions were weak; and my reasons for thinking 'so are twofold—first, a very large proportion of them died in child-'bed . . .; secondly, it appears that the wives of the divines were 'usually women of great piety; now it will be shown a little further 'on, that there is a frequent correlation between an unusually devout 'disposition and a weak constitution.' (P. 263.)

UNIVERSITY COLLEGE LONDON GALTON PAPERS

P.54v

quantity. Mr. Beckford, the wonder of half a century ago, was a man of real genius. In his 'Vathek,' still more in his Travels in Italy and in Portugal, there are passages of the very highest imaginative order, a sense of the picturesque approaching to sublimity. Yet no one would assign to him a high rank in literature. His genius, though real, was fitful, and its manifestations not of an attractive kind. Richard Ford's Handbook for Spain is commonly ranged on our shelves and in our minds with the rest of its useful, brick-coloured brethren. But that unpretending volume is instinct with original genius to which no other Handbook that ever was compiled makes the slightest pretence. We have taken commonplace instances, because they suit our meaning the best. Anyone can apply the doctrine further by analysing the effect produced on his mind by such literature as he is familiar with. That is, anyone who has the power of finding out and appreciating genius, a faculty very far from universal. There are many spirits, not otherwise ill-provided with acuteness, to which the distinctive presence of genius, whether in literature, or art, or life, is imperceptible. Our old friend Pepys the diarist was a man of ability, and not without pretensions to taste; and he thought 'Othello' a very inferior play to 'The Adventures of Five 'Hours.' Nevertheless, special quality as it doubtless is, we may perhaps agree in Voltaire's definition of genius, in the inferior sense in which we are now treating of it, as being after all only a higher order of talent.

Is genius, thus understood, physically inheritable? It were bold to affirm the contrary, but the instances seem so rare that they might fairly pass, in the eyes of a sceptic, for fortuitous. Notwithstanding all the pains taken by Mr. Galton as well as by others to construct pedigrees of gifted men, we can only at present remember one clear instance of an English author of real genius belonging to a family of ~~talented~~ kinsmen remarkable for talent: it is that of Coleridge.

But if this kind of sterility or isolation be truly predicable of genius, even of that lower and more every day kind with which we have been hitherto dealing, what are we to say of the doctrine of heredity as applied to genius of the really exalted order—to those minds which subjugate our very powers of judgment, insomuch that we are compelled to own,

> 'That we can judge as fitly of their worth
> As men can of those mysteries which Heaven
> Will not have earth to know.'

If we follow the almost unanimous voice of our instructors, we shall say that genius of this order, at all events, is absolutely kinless. True genius, say Spurzheim, Virey, Lordat, and their disciples, is always isolated. 'The extremes,' says Dr. Elam, 'are solitary; that is, do not transmit their characteristics. The lowest grade of intellect, the perfect idiot, is 'unfruitful: the highest genius is unfruitful as regards its psychical character: true genius does not descend to posterity. 'There may be talent and ability in the ancestry and in the 'descendants, directed to the same pursuits even; but from 'the time that the development culminates in true genius it 'begins to wane.'

To this leading truth surely all the records which we possess bear witness, although Mr. Galton, who seems by no means fully alive to this essential distinction of rank in the hierarchy of great men, tries as far as he can to include men of genius in his tables. Let us take the case of literary greatness alone, not as more remarkable than others, but as that of which examples are most at hand and least questionable. Shakspeare and Milton for England; Molière, Voltaire, Rousseau for France; Goethe and Schiller for Germany; Dante and Machiavel for Italy; these may stand, not as the loftiest names by universal assent (we decline all controversy), but as those most frequently in men's mouths when personifying the literary genius of their respective nations, and as possessing that recognised stamp of supremacy which moves us to involuntary respect whenever they are mentioned. In the case of not one of these is there the slightest evidence of genius being inherited by them or derived from them. They were mostly of quite undistinguished ancestors; none remarkable in a father, except that Milton may have derived a musical organisation

f.55r

from his; several died childless; of none has child or grandchild, notwithstanding the social advantages of such a relationship, attained any distinction worth noting. And if the same course of investigation were applied to the highest genius in its other manifestations, we suspect that the result would be the same. Even in the art of the painter, where kinship is so remarkable a phenomenon, Raphael and Leonardo da Vinci stand alone. No recorded son of men—such at least is our own judgment—ever was gifted with such genius, in his own sphere, as Napoleon I. Of all his numerous and well-cared for kindred, not one evinced anything more than a respectable amount of ability; and Flattery itself renounced in despair the endeavour to make him out any but the most commonplace pedigree.

In music, Beethoven, Mozart, & Mendelsohn left no rivals of their own race.

Omitting, however, the case of sheer genius as exceptional, some may think the evidence in favour of the hereditary transmission of intellectual peculiarities so overwhelming as to dispose them to agree with Sir Henry Holland that the real subject of surprise is, 'not that a character should be inherited, 'but that any should ever fail to be inherited.' They might almost be inclined to adopt Voltaire's lively suggestion, that if as much care were taken in managing the breeds of men as those of animals, 'les généalogies seraient écrites sur les visages 'et se manifesteraient dans les mœurs.' But there is assuredly no danger, or no hope, of the creation anywhere of such a race of intellectual patricians. In the first place, 'mirus Amor' would very certainly render any efforts towards it fruitless by introducing his own capricious exceptions. And, in the next place, if our very elementary knowledge of this branch of physiology has established anything it is this: that from some unknown causes, hereditary peculiarities are certain to die out in time, and most likely to die out early. Such was the judgment of the ancients according to the experience of old times. The most brilliant families, says Aristotle, pass off into insanity; those of steadier ability, into idiotcy. Or, as the same notion was polished into a proverb, 'heroum 'filii noxæ: amentes, Hippocratis filii.' 'The upward move-'ment, 'le mouvement ascendant,' of the high faculties which 'distinguished so many founders of families almost always 'stops short at the third generation, rarely continues to the 'fourth, and scarcely ever beyond the fifth,' is the judgment of Prosper Lucas. How far this apparent brevity of duration, in families, of the hereditary transmission of ability, may be reconciled with Mr. Darwin's general views of the durability of inheritance, inquiries starting from more advanced knowledge may possibly determine. But it is consistent, at all events, with one fundamental law of human nature, which limits the progress of the individual, if not of the species. Each generation inherits the accumulated knowledge of its predecessors. But the individuals of each generation inherit no increase of intellectual power. It is no more possible to add a cubit to the mental than to the bodily stature. Physical training gives health and vigour to the physical faculties; but only up to a certain point, and that a point which has assuredly been reached before. Mr. Galton's 'oarsmen' and 'wrestlers' may maintain inherited supremacy as a body; but the individual best oarsman of this generation is not, except accidentally, a better man than he of the last. Well-trained men may be stronger, swifter, more enduring, than those who are not so; but you cannot train a man to be strong, or swift, or enduring beyond a certain limit, and that a limit which we may be sure some other man has already reached. And, in the like manner, mental cultivation reaches inevitably its appointed maximum. No combination which we are entitled to conceive as possible of hereditary influences will produce an individual fitted with mental powers beyond a standard, not so definable indeed as that of bodily powers, but quite as certain. 'Es ist dafür 'gesorgt,' says the German proverb, 'das die Bäume nicht in 'den Himmel wachsen.'

UNIVERSITY COLLEGE GALTON PAPERS

L 4

P554

Edinburgh Review

(Farrar)