NOTEWORTHY FAMILIES
(MODERN SCIENCE)

AN INDEX TO KINSHIPS IN NEAR DEGREES BETWEEN PERSONS WHOSE ACHIEVEMENTS ARE HONOURABLE, AND HAVE BEEN PUBLICLY RECORDED

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INTRODUCTORY NOTE

THE brief biographical notices of sixty-six noteworthy families printed in this book are compiled from replies to a circular issued by me in the spring of 1904 to all living Fellows of the Royal Society. Those that first arrived were discussed in "Nature," August 11, 1904.

On Mr. Schuster's appointment by the University of London, in October, 1904, to the Research Fellowship in National Eugenics, all my materials were placed in his hand. He was to select from them those families that contained at least three noteworthy kinsmen, to compile lists of their achievements on the model of the above-mentioned memoir, to verify statements as far as possible, and to send what he wrote for final approval by the authors of the several replies.

This was done by Mr. Schuster. The results were then submitted by him as an appendix to his Report to the Senate last summer.

After preliminary arrangements, it was determined by the Senate that the list of Noteworthy Families should be published according to the title-page of this book, I having agreed to contribute the

preface, Mr. Schuster's time being fully occupied with work in another branch of Eugenics.

So the list of "Noteworthy Families" in this volume is entirely the work of Mr. Schuster, except in respect to some slight alterations and additions for which I am responsible, as well as for all the rest.

FRANCIS GALTON.

PREFACE

Chapter I.—General Remarks.

This volume is the first instalment of a work that admits of wide extension. Its object is to serve as an index to the achievements of those families which, having been exceptionally productive of noteworthy persons, seem especially suitable for biographical investigation.

The facts that are given here are avowedly bald and imperfect; nevertheless, they lead to certain important conclusions. They show, for example, that a considerable proportion of the noteworthy members in a population spring from comparatively few families.

The material upon which this book is based is mainly derived from the answers made to a circular sent to all the Fellows of the Royal Society whose names appear in its Year Book for 1904.

The questions were not unreasonably numerous, nor were they inquisitorial; nevertheless, it proved that not one-half of those who were addressed cared to answer them. It was, of course, desirable to know a great deal more than could have been asked for or published with propriety, such as the proneness

of particular families to grave constitutional disease. Indeed, the secret history of a family is quite as important in its eugenic aspect as its public history; but one cannot expect persons to freely unlock their dark closets and drag forth family skeletons into the light of day. It was necessary in such a work as this to submit to considerable limitations, while turning to the fullest account whatever could be stated openly without giving the smallest offence to any of the persons concerned.

One limitation against which I still chafe in vain is the impracticability of ascertaining so apparently simple a matter as the number of kinsfolk of each person in each specific degree of near kinship, without troublesome solicitations. It was specially asked for in the circular, but by no means generally answered, even by those who replied freely to other questions. The reason must in some cases have been mere oversight or pure inertia, but to a large extent it was due to ignorance, for I was astonished to find many to whom the number of even their near kinsfolk was avowedly unknown. Emigration, foreign service, feuds between near connections, differences of social position, faintness of family interest, each produced their several effects, with the result, as I have reason to believe, that hardly one-half of the persons addressed were able, without first making inquiry of others, to reckon the number of their uncles, adult nephews, and first cousins. The isolation of some few from even their nearest relatives was occasionally so complete that the

number of their brothers was unknown. It will be seen that this deficiency of information admits of being supplied indirectly, to a considerable degree.

The collection of even the comparatively small amount of material now in hand proved much more troublesome than was anticipated, but as the object and limitations of inquiries like this become generally understood, and as experience accumulates, the difficulty of similar work in the future will presumably lessen.

Chapter II.—Noteworthiness.

The Fellowship of the Royal Society is a distinction highly appreciated by all members of the scientific world. Fifteen men are annually selected by its council out of some sixty candidates, each candidate being proposed by six, and usually by more, Fellows in a certificate containing his qualifications. The candidates themselves are representatives of a multitude of persons to whom the title would be not only an honour but a material advantage. The addition of the letters "F.R.S." to the names of applicants to any post, however remotely connected with science, is a valuable testimonial and a recognised aid towards success, so the number of those who desire it is very large. Experience shows that no special education, other than self-instruction, is really required to attain this honour. Access to laboratories, good tuition, and so forth, are doubtless helpful, so far

that many have obtained the distinction through such aid who could not otherwise have done so, but they are far from being all-important factors of success. The facts that lie patent before the eyes of every medical man, engineer, and the members of most professions, afford ample material for researches that would command the attention of the scientific world if viewed with intelligence and combined by a capable mind.

It is so difficult to compare the number of those who might have succeeded with the number of those who do, that the following illustration may perhaps be useful: By adding to the 53 registration counties in England, the 12 in Wales, the 33 in Scotland and the 32 in Ireland, an aggregate of 130 is obtained. The English counties, and the others in a lesser degree, have to be ransacked in order to supply the fifteen annually-elected Fellows; so it requires more than eight of these counties to yield an annual supply of a single Fellow to the Royal Society.

It is therefore contended that the Fellows of the Royal Society have sufficient status to be reckoned "noteworthy," and, such being the case, they are a very convenient body for inquiries like these. They are trained to, and have sympathy with, scientific investigations; biographical notices are published of them during their lifetime, notably in the convenient compendium "Who's Who," to which there will be frequent occasion to refer; and they are more or less known to one another, either directly or through friends, making it comparatively easy to satisfy the

occasional doubts which may arise from their communications. It was easier and statistically safer to limit the inquiry to those Fellows who were living when the circulars were issued—that is, to those whose names and addresses appear in the "Royal Society's Year Book" of 1904. Some of them have since died, full of honours, having done their duty to their generation; others have since been elected; so the restriction given here to the term "Modern Science" must be kept in mind.

Another and a strong motive for selecting the F.R.S. as subjects of inquiry was that so long ago as 1863-1864 I had investigated the antecedents of 180 of those who were then living, who were further distinguished by one or other of certain specified and recognised honours. My conclusions were briefly described in a Friday evening lecture, February 27, 1864, before the Royal Institution. These, together with the data on which they were founded, were published in the same year in my book "English Men of Science." Readers who desire fuller information as to the antecedents conducive to success that are too briefly described further on should refer to the above book.

The epithet "noteworthy" is applied to achievements in all branches of effort that rank among the members of any profession or calling as equal, at least, to that which an F.R.S. holds among scientific men. This affords a convenient and sufficiently definite standard of merit. I could think of none more appropriate when addressing scientific men,

and it seems to have been generally understood in the desired sense. It includes more than a half of those whose names appear in the modern editions of "Who's Who," which are become less discriminate than the earlier ones. "Noteworthiness" is ascribed, without exception, to all whose names appear in the "Dictionary of National Biography," but all of these were dead before the date of the publication of that work and its supplement. Noteworthiness is also ascribed to those whose biographies appear in the "Encyclopædia Britannica" (which includes many who are now alive), and, in other works, of equivalent authority. As those persons were considered by editors of the last named publications to be worthy of note, I have accepted them, on their authority, as noteworthy.

Chapter III.—Highest Order of Ability.

No attempt is made in this book to deal with the transmission of ability of the very highest order, as the data in hand do not furnish the required material, nor will the conclusions be re-examined at length that I published many years ago in "Hereditary Genius." Still, some explanation is desirable to show the complexity of the conditions that are concerned with the hereditary transmission of the highest ability, which, for the moment, will be considered as the same thing as the highest fame.

It has often been remarked that the men who

have attained pinnacles of celebrity failed to leave worthy successors, if any. Many concurrent causes aid in producing this result. An obvious one is that such persons are apt to be so immersed in their pursuit, and so wedded to it, that they do not care to be distracted by a wife. Another is the probable connection between severe mental strain and fertility. Women who study hard have, as a class—at least, according to observant caricaturists—fewer of the more obvious feminine characteristics; but whether this should be considered a cause or a consequence, or both, it is difficult to say. A third, and I think the most important, reason why the children of very distinguished persons fall sometimes lamentably short of their parents in ability is that the highest order of mind results from a fortunate mixture of incongruous constituents, and not of such as naturally harmonize. Those constituents are *negatively* correlated, and therefore the compound is unstable in heredity. This is eminently the case in the typical artistic temperament, which certainly harmonizes with Bohemianism and passion, and is opposed to the useful qualities of regularity, foresight, and level common sense. Where these and certain other incongruous faculties go together in well-adjusted proportions, they are capable of achieving the highest success; but their heritage is most unlikely to be transmitted in its entirety, and ill-balanced compounds of the same constituents are usually of little avail, and sometimes extraordinarily bad. A fourth reason is that the highest imaginative power is dangerously near

lunacy. If one of the sanest of poets, Wordsworth, had, as he said, not unfrequently to exert strength, as by shaking a gate-post, to gain assurance that the world around him was a reality, his mind could not at those times have been wholly sane. Sanity is difficult to define, except negatively; but, even though we may be convinced of the truths of the mystic, that nothing is what it seems to be, the above-mentioned conduct suggests temporary insanity. It is sufficient to conclude, as any Philistine would, that whoever has to shake a gate-post to convince himself that it is not a vision is dangerously near madness. Mad people do such things; those who carry on the work of the world as useful and law-abiding citizens do not. I may add that I myself had the privilege of hearing at first hand the narrator's own account of this incident, which was much emphasized by his gestures and tones. Wordsworth's unexpected sally was in reply to a timid question by the late Professor Bonamy Price, then a young man, concerning the exact meaning of the lines in his famous "Ode to Immortality," "not for these I raise the song of praise; but for those obstinate *questionings of sense and outward things*," etc.

I cannot speak from the present returns, but only from my own private knowledge of the somewhat abnormal frequency with which eccentricity, or other mental unsoundness, occurs in the families of very able scientific men. Lombroso, as is well known, strongly asserted the truth of this fact, but more strongly, as it seems to myself, than the evidence warrants.

It is, therefore, not in the highest examples of human genius that heredity can be most profitably studied, men of high, but not of the highest, ability being more suitable. The only objection to their use is that their names are, for the most part, unfamiliar to the public.

The vastness of the social world is very imperfectly grasped by its several members, the large majority of the numerous persons who have been eminent above their far more numerous fellows, each in his own special department, being unknown to the generality. The merits of such men can be justly appreciated only by reference to records of their achievements. Let no reader be so conceited as to believe his present ignorance of a particular person to be a proof that the person in question does not merit the title of noteworthy.

I said what I have to say about the modern use of the word "genius" in the preface to the second edition of my "Hereditary Genius." It has only latterly lost its old and usual meaning, which is preserved in the term of an "ingenious" artisan, and has come to be applied to something akin to inspiration. This simply means, as I suppose, though some may think differently, that the powers of unconscious work possessed by the brain are abnormally developed in them. The heredity of these powers has not, I believe, been as yet especially studied. It is strange that more attention has not been given until recently to unconscious brain-work, because it is by far the most potent factor in

mental operations. Few people, when in rapid conversation, have the slightest idea of the particular form which a sentence will assume into which they have hurriedly plunged, yet through the guidance of unconscious cerebration it develops itself grammatically and harmoniously. I write on good authority in asserting that the best speaking and writing is that which seems to flow automatically shaped out of a full mind.

Chapter IV.—Proportion of Noteworthies to the Generality.

The materials on which the subject of this chapter depends are too various to lead to a single definite and trustworthy answer. Men who have won their way to the front out of uncongenial environments owe their success principally, I believe, to their untiring energy, and to an exceptionally strong inclination in youth towards the pursuits in which they afterwards distinguished themselves. They do not seem often to be characterized by an ability that continues pre-eminent on a wider stage, because after they have fully won a position for themselves, and become engaged in work along with others who had no early difficulties to contend with, they do not, as a rule, show greatly higher natural ability than their colleagues. This is noticeable in committees and in other assemblies or societies where intellects are

pitted against one another. The bulk of existing noteworthies seem to have had but little more than a fair education as small boys, during which their eagerness and aptitude for study led to their receiving favour and facilities. If, in such cases, the aptitudes are scholastic, a moderate sum suffices to give the boy a better education, enabling him to win scholarships and to enter a University. If they lie in other directions, the boy attracts notice from some more congenial source, and is helped onwards in life by other means. The demand for exceptional ability, when combined with energy and good character, is so great that a lad who is gifted with them is hardly more likely to remain overlooked than a bird's nest in the playground of a school. But, by whatever means noteworthiness is achieved, it is usually after a course of repeated and half-unconscious testings of intelligence, energy, and character, which build up repute brick by brick.

If we compare the number of those who achieved noteworthiness through their own exertions with the numbers of the greatly more numerous persons whose names are registered in legal, clerical, medical, official, military, and naval directories, or in those of the titled classes* and landed gentry, or lastly, in those of the immense commercial world, the pro-

* By a rough count of the entries in Burke's "Peerage, Baronetage and Knightage," I find that upwards of 24,000 ladies are of sufficient rank to be included by name in his Table of Precedence.

portion of one noteworthy person to one hundred of the generality who were equally well circumstanced as himself does not seem to be an over-estimate.

Chapter V.—Noteworthiness as a Measure of Ability.

Success is the joint result of the natural powers of mind and body, and of favourable circumstances. Those of the latter which fall into definite groups will be distinguished as "environment," while the others, which evade classification, will be called "accidental."

The superstitions of old times cling so tenaciously to modern thought that the words "accident" and "chance" commonly connote some mysterious agency. Nothing of the kind is implied here. The word "accident" and the like is used in these pages simply to express the effect of unknown or unnoted causes, without the slightest implication that they are unknowable. In most cases their neglect has been partly due to their individual insignificance, though their combined effect may be very powerful when a multitude work in the same direction. Moreover, a trifling pressure at the right spot suffices to release a hair-trigger and thereby to cause an explosion; similarly, with personal and social events, a trifling accident will sometimes determine a career.

Noteworthiness and success may be regarded

statistically as the outcome of ability and environment and of nothing else, because the effects of chance tend to be eliminated by statistical treatment. The question then becomes, How far may noteworthiness be accepted as a statistical measure of ability?

Ability and environment are each composed of many elements that differ greatly in character. Ability may be especially strong in particular directions as in administration, art, scholarship, or science; it is, nevertheless, so adaptive that an able man has often found his way to the front under more than one great change of circumstance. The force that impels towards noteworthy deeds is an innate disposition in some men, depending less on circumstances than in others. They are like ships that carry an auxiliary steam-power, capable of moving in a dead calm and against adverse winds. Others are like the ordinary sailing ships of the present day—they are stationary in a calm, but can make some way towards their destination under almost any wind. Without a stimulus of some kind these men are idle, but almost any kind of stimulus suffices to set them in action. Others, again, are like Arab dhows, that do little more than drift before the monsoon or other wind; but then they go fast.

Environment is a more difficult topic to deal with, because conditions that are helpful to success in one pursuit may be detrimental in another. High social rank and wealth conduce to success in political life, but their distractions and claims clash with

quiet investigation. Successes are of the most varied descriptions, but those registered in this book are confined to such as are reputed honourable, and are not obviously due to favour.

In attacking the problem it therefore becomes necessary to fix the attention, in the first instance, upon the members of some one large, special profession, as upon artists, leaders in commerce, investigators, scholars, warriors, and so forth, then to divide these into subclasses, until more appears to be lost through paucity of material than is gained through its increasing homogeneity.

Whatever group be selected, both ability and environment must be rated according to the requirements of that group. It then becomes possible, and it is not difficult, to roughly array individuals under each of these two heads successively, and to label every person with letters signifying his place in either class. For purposes of the following explanation, each quality will be distributed into three grades, determined not by value, but by class place —namely, the highest third, the medium third, and the lowest third. In respect to ability, these classes will be called A, B, and C. In respect to environment, the grades will refer to its helpfulness towards the particular success achieved, and the classes will be called E, F, G. It must be clearly understood that the differences between the grades do not profess to be equal, merely that A is higher than B, and B than C; similarly as to E, F, and G. The A, B, C may be quite independent of E, F, G,

or they may be correlated. Both cases will be considered.

Ability and Environment being mutually helpful towards success, the successes statistically associated with AE will be reckoned higher than those associated with AF. Again, for simplicity of explanation only, it will here be assumed that Ability and Environment are equally potent in securing success. Any other reasonable relation between their influences may be substituted for the purpose of experiment, but the ultimate conclusion will be much the same.

TABLE I.—COMBINATIONS OF ABILITY AND ENVIRONMENT.

AE. I.	AF. I.	AG. II.
BE. I.	BF. II.	BG. III.
CE. II.	CF. III.	CG. III.

First, suppose Ability and Environment to be entirely independent, A being as frequently associated with E as it is with F or with G; similarly as regards B and C, then the nine combinations shown in Table I. will be equally frequent. These tabular entries fall into three equal groups. The three that lie in and about the upper left-hand corner contain the highest constituents—namely, either *high* combined with *high*, or one *high* with one *medium*. They will produce Successes of Grade I. The three in

the middle diagonal band running between the lower left and the upper right corners are either one *high* and one *low*, or both are *medium;* they will produce Successes of Grade II. The three in and about the right-hand corner are either one *medium* with one *low*, or both are *low;* they will produce Successes of Grade III. This is still more clearly seen by sorting the results into Table II., from which it is clear that a high grade of Success is statistically associated with a high, but less, grade of Ability, a medium with a medium, and a low

TABLE II.—ABILITY INDEPENDENT OF ENVIRONMENT.

Grades of Success.	Contributory Combinations.			Corresponding Abilities.		
I.	AE	AF	BE	2 of A	1 of B	—
II.	AG	BF	CE	1 of A	1 of B	1 of C
III.	CG	BG	CF	—	1 of B	2 of C

grade of Success with a low, but less low, grade of Ability.

Secondly, suppose A, B, C to be correlated with E, F, G, so that A is more likely to be associated with E than it is with F, and much more likely than with G. Similarly, C is most likely to be associated with G, less likely with F., and least likely with E. The general effect of these preferences will be well represented by divorcing the couples which differ by two grades—namely, AG and CE, by re-mating their constituents as AE and CG, and by re-sorting

them, as in Table III. The couples that differ by no more than one grade are left undisturbed. The results now fall into five grades of Success, in four of which each grade contains two-ninths of the whole number, and one, the medium Grade 3, contains only one-ninth.

As remarked previously, the grades are not supposed to be separated by equal steps. They are numbered in ordinary numerals to distinguish them from those in Table II.

TABLE III.—ABILITY CORRELATED WITH ENVIRONMENT.

Grades of Success.	Contributory Combinations.		Corresponding Abilities.		
1	AE	AE	2 of A	—	—
2	AF	BE	1 of A	1 of B	—
3	BF	—	—	1 of B	—
4	BG	CF	—	1 of B	1 of C
5	CG	CG	—	—	2 of C

It clearly appears from this table that the effect of correlation between Ability and Environment is to increase, and not to diminish, the closeness of association between Success and Ability. Indeed, if the correlation were perfect, Success would become an equal measure *both* of Ability and of Favourableness of Environment.

These arguments are true for each and every branch of Success, and are therefore true for all: Ability being construed as Appropriate Ability, and Environment as Appropriate Environment.

The general conclusion is that Success is, statistically speaking, a magnified, but otherwise trustworthy, sign of Ability, high Success being associated with high, but not an equally high, grade of Ability, and low with low, but not an equally low. A few instances to the contrary no more contradict this important general conclusion than a few cases of death at very early or at very late ages contradict the tables of expectation of life of a newly-born infant.

Chapter VI.—Nomenclature of Kinship.

Specific kinships are such as "paternal uncle" or "maternal uncle," as distinguished from the general term "uncle." The phrase "first cousin" covers no less than eight specific kinships (four male and four female), not taking the issue of mixed marriages into account. Specific kinships are briefly expressed by a nomenclature in which *fa*, *me*, *bro*, *si*, *son*, *da*, *Hu*, *Wi*, stand respectively for *father*, *mother*, *brother*, *sister*, *son*, *daughter*, *Husband*, *Wife*. Each of these syllables is supposed to have the possessive *'s* added to it whenever it is followed by another syllable of the set, or by the word *is* when it is not. *Example:* Let the person from whom the kinships are reckoned be called *P*, and let *Q* and *R* be two of *P*'s kinsfolk, described respectively as *fa bro* and *me si son*. That means that *P's father's brother* is *Q*, and that *P's mother's*

sister's son is *R*. It is a simple and easily intelligible nomenclature, and replaces intolerable verbiage in the description of distant kinships. My correspondents used it freely, and none of them spoke of any difficulty in understanding it. Its somewhat babyish sound is soon disregarded.

TABLE IV.—ABBREVIATIONS.

Males.		Females.	
Grandfather, paternal	*fa fa*	Grandmother, paternal	*fa me*
,, maternal	*me fa*	,, maternal	*me me*
Father	*fa*	Mother	*me*
Uncle, paternal ...	*fa bro*	Aunt, paternal ...	*fa si*
,, maternal ...	*me bro*	,, maternal ...	*me si*
Brother	*bro*	Sister	*si*
Son	*son*	Daughter	*da*
Nephew, brother's son	*bro son*	Niece, brother's daughter	*bro da*
Nephew, sister's son	*si son*	Niece, sister's daughter	*si da*
Male first cousins:		Female first cousins:	
1. Son of paternal uncle	*fa bro son*	1. Dau. of paternal uncle	*fa bro da*
2. Son of maternal uncle	*me bro son*	2. Dau. of maternal uncle	*me bro da*
3. Son of paternal aunt	*fa si son*	3. Dau. of paternal aunt	*fa si da*
4. Son of maternal aunt	*me si son*	4. Dau. of maternal aunt	*me si da*

Those relationships that are expressed by different combinations of these letters differ *specifically;* therefore, in saying, in the next chapter, that each person has "roughly, on the average, one fertile relative in each and every form of specific kinship,"

it means in each and every combination of the above syllables that is practically possible.

Relationship may also be expressed conveniently for some purposes in Degrees of remoteness, the number of the Degree being that of the number of syllables used to express the specific kinship.

Chapter VII.—Number of Kinsfolk in each Degree.

The population may be likened to counters spread upon a table, each corresponding to a different individual. The counters are linked together by bands of various widths, down to mere threads, the widths being proportional to the closeness of the several kinships. Those in the first degree (*father*, *mother*, *brother*, *sister*, *son*, *daughter*) are comparatively broad; those in the second degree (*grandparent*, *uncle*, *aunt*, *nephew*, *niece*, *grandchild*) are considerably narrower; those in the third degree are very narrow indeed. Proceeding outwards, the connections soon become thinner than gossamer. The person represented by any one of these counters may be taken as the subject of a pedigree, and all the counters connected with it may be noted up to any specified width of band. In this book one of the counters is supposed to represent a Fellow of the Royal Society, whose name appears in the "Year-Book" of that Society for 1904, and the linkage

proceeds outwards from him to the third degree inclusive. Usually it stops there, but a few distant kinships have been occasionally inserted chiefly to testify to a prolonged heritage of family traits.

The intensity with which any specified quality occurs in each or any degree of kinship is measured by the proportion between the numbers of those who possess the quality in question and the total number of persons in that same degree. Particular inquiries were made on the latter point, but, as already stated, the answers were incomplete. There is, however, enough information to justify three conclusions of primary importance to the present inquiry—namely, the *average* number (1) of brothers of the subject, (2) of brothers of his father, and (3) of brothers of his mother.

The number of Fellows to whom circulars were addressed was 467. The number of those who gave useful replies was 207, a little more than one-half of whom sent complete returns of the numbers of their brothers and uncles; some few of these had, however, placed a query here or there, or other sign of hesitation. As the number of completely available returns scarcely exceeded 100, I have confined the following tables to that number exactly, taking the best of the slightly doubtful cases. It would have been possible, by utilizing partial returns and making due allowances, to have obtained nearly half as many again, but the gain in numbers did not seem likely to be compensated by the somewhat inferior quality of the additional data.

The first three lines of Table V. show that there is no significant difference between the average numbers of brothers and sisters, nor between those of fathers' brothers and fathers' sisters, nor again between those of mothers' brothers and mothers' sisters; nor is there any large difference between those of male and female cousins, but it is apparently

TABLE V.—NUMBER OF KINSFOLK IN ONE HUNDRED FAMILIES WHO SURVIVED CHILDHOOD.

Generic Kinships.	Specific Kinships.	Number of Persons.	Specific Kinships.	Number of Persons.
Brothers and sisters	*bro*	206	*si*	207
Uncles and aunts	*fa bro*	228	*fa si*	207
	me bro	219	*me si*	238
	Mean ...	224	Mean ...	223
First cousins, male and female	*fa bro son*	265	*fa bro da*	302
	fa si son	184	*fa si da*	208
	me bro son	236	*me bro da*	266
	me si son	237	*me si da*	246

a fact that the group of "brothers" is a trifle smaller than that of uncles on either side. It seems, therefore, that the generation of the Subjects contains a somewhat smaller number of individuals than that of either of their Parents, being to that extent significant of a lessening population so far as their class is concerned.

It may seem at first sight surprising that a brother and a sister should each have the same average number of brothers. It puzzled me until I had thought the matter out, and when the results were published in "Nature," it also seems to have puzzled an able mathematician, and gave rise to some newspaper controversy, which need not be recapitulated. The essence of the problem is that the sex of one child is supposed to give no clue of any practical importance to that of any other child in the same family. Therefore, if one child be selected out of a family of brothers and sisters, the proportion of males to females in those that remain will be, *on the average*, identical with that of males to females in the population at large. It makes no difference whether the selected child be a boy or a girl. Of course, if the conditions were "given a family of three boys and three girls," each boy would have only two brothers and three sisters, and each girl would have three brothers and two sisters, but that is not the problem.

Subject to this explanation, the general accuracy of the observed figures which attest the truth of the above conclusion cannot be gainsaid on theoretical grounds, nor can the conclusions be ignored to which they lead. They enable us to make calculations concerning the average number of kinsfolk in each and every specified degree in a stationary population, or, if desired, in one that increases or decreases at a specified rate. It will here be supposed for convenience that the average number of males and

females are equal, but any other proportion may be substituted. The calculations only regard its fertile members; they show that every person has, on the average, about one male fertile relative in each and every form of specific kinship.

Kinsfolk may be divided into direct ancestry, collaterals of all kinds, and direct descendants. As regards the direct ancestry, each person has one and only one ancestor in each specific degree, one *fa*, one *fa fa*, one *me fa*, and so on, although in each *generic* degree it is otherwise; he has two grandfathers, four great-grandfathers, etc. With collaterals and descendants the average number of *fertile* relatives in each specified degree must be stationary in a stationary population, and calculation shows that number is approximately *one*. The calculation takes no cognizance of infertile relatives, and so its results are unaffected by the detail whether the population is kept stationary by an increased birth-rate of children or other infertiles, accompanied by an increased death-rate among them, or contrariwise.

The exact conclusions were ("Nature," September 29, 1904, p. 529), that if $2d$ be the number of children in a family, half of them *on the average* being male, and if the population be stationary, the number of fertile males in each specific ancestral kinship would be *one*, in each collateral it would be $d-\frac{1}{2}$, in each descending kinship d. If $2d=5$ (which is a common size of family), one of these on the average would be a fertile son, one a fertile

daughter, and the three that remained would leave no issue. They would either die as boys or girls or they would remain unmarried, or, if married, would have no children.

The reasonable and approximate assumption I now propose to make is that the number of fertile individuals is not grossly different to that of those who live long enough to have an opportunity of distinguishing themselves. Consequently, the calculations that apply to fertile persons will be held to apply very roughly to those who were in a position, so far as age is concerned, to achieve noteworthiness, whether they did so or not. Thus, if a group of 100 men had between them 20 noteworthy paternal uncles, it will be assumed that the total number of their paternal uncles who reached mature age was about 100, making the intensity of success as 20 to 100, or as 1 to 5. This method of roughly evading the serious difficulty arising from ignorance of the true values in the individual cases is quite legitimate, and close enough for present purposes.

Chapter VIII.—Number of Noteworthy Kinsmen in each Degree.

The materials with which I am dealing do not admit of adequately discussing noteworthiness in women, whose opportunities of achieving distinction are far fewer than those of men, and whose energies

are more severely taxed by domestic and social duties. Women have sometimes been accredited in these returns by a member of their own family circle, as being gifted with powers at least equal to those of their distinguished brothers, but definite facts in corroboration of such estimates were rarely supplied.

The same absence of solid evidence is more or less true of gifted youths whose scholastic successes, unless of the highest order, are a doubtful indication of future power and performance, these depending much on the length of time during which their minds will continue to develop. Only a few of the Subjects of the pedigrees in the following pages have sons in the full maturity of their powers, so it seemed safer to exclude all relatives who were of a lower generation than themselves from the statistical inquiry. This will therefore be confined to the successes of fathers, brothers, grandfathers, uncles, great-uncles, great-grandfathers, and male first cousins.

Only 207 persons out of the 467 who were addressed sent serviceable replies, and these cannot be considered a fair sample of the whole. Abstention might have been due to dislike of publicity, to inertia, or to pure ignorance, none of which would have much affected the values as a sample; but an unquestionably common motive does so seriously—namely, when the person addressed had no noteworthy kinsfolk to write about. On the latter ground the 260 who did not reply would, as a whole, be poorer in noteworthy kinsmen than the 207 who

did. The true percentages for the 467 lie between two limits: the upper limit supposes the richness of the 207 to be shared by the 260; the lower limit supposes it to be concentrated in the 207, the remaining 260 being utterly barren of it. Consequently, the upper limit is found by multiplying the number of observations by 100 and dividing by 207, the lower by multiplying by 100 and dividing by 467. These limits are unreasonably wide; I cannot guess which is the more remote from the truth, but it cannot be far removed from their mean values, and this may be accepted as roughly approximate. The observations and conclusions from them are given in Table VII., p. xl.

Chapter IX.—Marked and Unmarked Degrees of Noteworthiness.

Persons who are technically "noteworthy" are by no means of equal eminence, some being of the highest distinction, while others barely deserve the title. It is therefore important to ascertain the amount of error to which a statistical discussion is liable that treats everyone who ranks as noteworthy at all on equal terms. The problem resembles a familiar one that relates to methods for electing Parliamentary representatives, such as have been proposed at various times, whether it should be by the coarse method of one man one vote, or through

some elaborate arrangement which seems highly preferable at first sight, but may be found on further consideration to lead to much the same results.

In order to test the question, I marked each noteworthy person whose name occurs in the list of sixty-six families at the end of this book with 3, 2, or 1, according to what I considered his deserts, and soon found that it was easy to mark them with fair consistency. It is not necessary to give the rules which guided me, as they were very often modified by considerations, each obvious enough in itself, but difficult to summarize as a whole. Various provisional trials were made; I then began afresh by rejecting a few names as undeserving any mark at all, and, having marked the remainder individually, found that a total of 657 marks had been awarded to 332 persons; 117 of them had received 3 marks; 101, 2 marks; 104, 1 mark; so the three subdivisions were approximately equal in number. The marks being too few to justify detailed treatment, I have grouped the kinsmen into first, second, and third degrees, and into first cousins, the latter requiring a group to themselves. The first degree contains father and brothers; the second, grandfathers and uncles; the third, great-grandparents and great-uncles. The results are shown in Table VI. The marks assigned to each of the groups are given in the first line (total 657), and the number of the noteworthy persons in each group who received any mark at all is shown in the third line (total 329). In order to compare the first and third

lines of entries on equal terms, those in the first were multiplied by 329 and divided by 657, and then entered in the second line. The closeness of resemblance between the second and third lines emphatically answers the question to be solved. There is no significant difference between the results of the marked and the unmarked observations. The reason probably is that the distribution of triple, double, and

TABLE VI.—COMPARISON OF RESULTS WITH AND WITHOUT MARKS IN THE SIXTY-FIVE FAMILIES.

	First Degree.	Second Degree.	Third Degree.	First Cousins.	Total.
Number of marks assigned	225	208	102	122	657
Number of marks reduced proportionately ...	113	104	51	61	329
Number of individuals unmarked	110	112	46	61	329
Mean	111	108	49	61	329

single marks separately is much the same in each of the groups, and therefore remains alike when the three sets of marks are in use at the same time. It is thus made clear that trouble taken in carefully marking names for different degrees of noteworthiness would be wasted in such a rough inquiry as this.

Table VII., in the next chapter, affords an interesting illustration of the character of the ignor-

ance concerning the noteworthiness of kinsmen in distant degrees, showing that it is much lessened when they bear the same surname as their father, or even as the maiden surname of their mother. The argument is this : Table V. has already shown that *me bros* are, speaking roughly, as frequently noteworthy as *fa bros*—fifty-two of the one to forty-five of the other—so noteworthiness is so far an equal characteristic of the maternal and paternal lines, resembling in that respect nearly all the qualities that are transmitted purely through heredity. There ought, therefore, to be as many persons recorded as noteworthy in each of the four different kinds of great-grandparents. The same should be the case in each of the four kinds of great-uncles. But this is not so in either case. The noteworthy great-grandfathers, *fa fa fa*, who bear the same name as the subject are twice as numerous as the *me fa fa* who bear the maiden surname of the mother, and more than five times as numerous as either of the other two, the *fa me fa* and *me me fa*, whose surnames differ from both, unless it be through some accident, whether of a cross marriage or a chance similarity of names. It is just the same with the great-uncles. Now, the figures for great-grandfathers and great-uncles run so closely alike that they may fairly be grouped together, in order to obtain a more impressive whole —namely, two sorts of these kinsmen, bearing the same name as the Subject, contain between them 23 noteworthies, or 11·50 each ; two sorts having the mother's maiden surname contain together 11 note-

worthies, or 5·50 each ; four sorts containing between them 7 names, or an average of 1·75 each. These figures are self-consistent, being each the sum of two practically equal constituents, and they are sufficiently numerous to be significant. The remarkable differences in their numbers, 11·50, 5·50, 1·75, when they ought to have been equal, has therefore to be accounted for, and the explanation given above seems both reasonable and sufficient.

Chapter X.—Conclusions.

The most casual glance at Table VII. leaves no doubt as to the rapid diminution in the frequency of noteworthiness as the distance of kinship to the F.R.S. increases, and it would presumably do the same to any other class of noteworthy persons.

In drawing more exact conclusions, the returns must be deemed to refer not to a group of 207 F.R.S., because they are not a fair sample of the whole body of 467, and, for reasons already given, they are too rich in noteworthiness for the one and too poor for the other. They will, therefore, be referred to the number that is the mean of these two limits—namely, to 337. I am aware of no obvious guidance to any better hypothesis.

The value of the expectation that noteworthiness would be found in any specified kinsman of an

F.R.S., of whom nothing else is known, may be easily calculated from Table VII. on the two hypotheses already mentioned and justified: (1) That the figures should be taken to refer to 337, and not to 207; (2) that 1 per cent. of the generality are noteworthy—that is to say, there are 3·37 noteworthies to every 337 persons of the generality.

TABLE VII.—NUMBER OF NOTEWORTHY KINSMEN RECORDED IN 207 RETURNS.

Kinship.	Numbers Recorded.	Kinship.	Numbers Recorded.
fa	81	—	—
bro	104	—	—
fa fa	40	*fa fa fa*	11
me fa	42	*fa me fa*	2
fa bro	45	*me fa fa*	5
me bro	52	*me me fa*	1
fa bro son	30	*fa fa bro*	12
me bro son ...	19	*fa me bro*	2
fa si son	28	*me fa bro*	6
me si son	22	*me me bro*	2

Thus, for the fathers of F.R.S., 81 are recorded as noteworthy, against 3·37 of fathers of the generality—that is, they are 24·1 times as numerous. For the first cousins of F.R.S. there are 99 noteworthies, divided amongst four kinds of male first-cousins, or 24·75 on an average to each kind, against the 3·37 of the generality—that is, they are 7·3 times as numerous.

On this principle the expectation of noteworthi-

ness in a kinsman of an F.R.S. (or of other noteworthy person) is greater in the following proportion than in one who has no such kinsman: If he be a father, 24 times as great; if a brother, 31 times; if a grandfather, 12 times; if an uncle, 14 times; if a male first cousin, 7 times; if a great-great-grandfather on the paternal line, $3\frac{1}{2}$ times.

The reader may work out results for himself on other hypotheses as to the percentage of noteworthiness among the generality. A considerably larger proportion would be noteworthy in the higher classes of society, but a far smaller one in the lower; it is to the bulk, say, to three-quarters of them, that the 1 per cent. estimate applies, the extreme variations from it tending to balance one another.

The figures on which the above calculations depend may each or all of them be changed to any reasonable amount, without shaking the truth of the great fact upon which Eugenics is based, that able fathers produce able children in a much larger proportion than the generality.

The parents of the 207 Fellows of the Royal Society occupy a wide variety of social positions. A list is given in the Appendix of the more or less noteworthy parents of those Fellows whose names occur in the list of sixty-six families. The parents are classified according to their pursuits.

Many parents of the other Fellows in the 207 families were not noteworthy in the technical sense of the word, but were reported to be able. It was also often said in the replies that the general level of ability among the members of the family of the F.R.S. was high. Other parents were in no way remarkable, so the future Fellow was simply a "sport," to use the language of horticulturists and breeders, in respect to his taste and ability. It is to be remembered that "sports" are transmissible by heredity, and have been, through careful selection, the origin of most of the valuable varieties of domesticated plants and animals. Sports have been conspicuous in the human race, especially in some individuals of the highest eminence in music, painting, and in art generally, but this is not the place to enter further into so large a subject. It has been treated at length by many writers, especially by Bateson and De Vries, also by myself in the third chapter of "Natural Inheritance" and in the preface to the second edition of "Hereditary Genius."

NOTEWORTHY FAMILIES OF FELLOWS OF THE ROYAL SOCIETY LIVING IN 1904.

Avebury, Lord. See LUBBOCK.

Balfour, Right Hon. Arthur James (*b.* 1848), P.C., etc., F.R.S., Leader of the House of Commons, 1895; Prime Minister, 1902; President of the British Association, 1904; author of "The Foundations of Belief." [For fuller references, see "Who's Who" and numerous other biographies.]

bro, Francis Maitland **Balfour** (1851-1882), F.R.S., Professor of Animal Morphology at Cambridge; brilliant investigator in embryology; gold medal, Royal Society, 1881; killed by a fall in the Alps.

bro, Right Hon. Gerald W. **Balfour** (*b.* 1853), P.C., Fellow of Trinity College, Cambridge; President of the Board of Trade, 1902.

si, Eleanor Mildred (Mrs. Henry **Sidgwick**), Principal of Newnham College, Cambridge.

si, Evelyn, wife of **Lord Rayleigh,** F.R.S., and mother of Hon. Robert John **Strutt,** F.R.S. (*q.v.*).

me bro, 3rd Marquis of **Salisbury,** Robert A. T. **Gascoigne—Cecil** (1830-1903), K.G., P.C., etc., F.R.S.; eminent statesman; Prime Minister, 1885-1886, 1886, 1895-1903; Chancellor of the University of Oxford; President of the British Association, 1894; in earlier life essayist and critic; also an experimenter in electricity.

It is difficult to distinguish those in the able family of the Cecils whose achievements were due to sheer ability from those who were largely helped by social influence. A second *me bro* and five *me bro sons* are recorded in "Who's Who."

Sir Robert Stawell **Ball,** LL.D., F.R.S. (*b.* 1840), Lowndean Prof. of Astronomy and Geometry, Cambridge; Fellow of King's College, Cambridge; Member of the Council of the Senate; Director of the Cambridge Observatory since 1892; Royal Astronomer of Ireland, 1874-1892; Ex-President of Royal Astronomical Soc., Mathematical Assoc., and of Royal Zoological Soc. of Ireland; author of many works on astronomical, mathematical, and physical subjects.—["Who's Who."]

fa, Robert **Ball** (1802-1857), Hon. LL.D., Trinity Coll., distinguished naturalist; Secretary of Royal Zoological Soc. of Ireland; President of

Geological Soc. of Ireland; Director of Trinity Coll. Museum, 1844.—["Dict. N. Biog."]

bro, Valentine **Ball,** LL.D., C.B., F.R.S. (1843-1895); on staff of Geological Survey of India, 1864-1880; Prof. of Geology and Mineralogy in the University of Dublin, 1880-1882; Director and Organizer of National Museum, Dublin, 1882-1895; author of "Jungle Life in India," of an elaborate treatise on the economic geology of India, and of "Diamonds and Gold of India."—["Obit. Notice, P.R.S.," 1895.]

bro, Sir Charles Bent **Ball,** M.D., M.Ch., F.R.C.S.I., Hon. F.R.C.S., England; Regius Professor of Surgery, Univ. of Dublin; Surgeon to Sir Patrick Dun's Hospital, and Honorary Surgeon to the King in Ireland; author of various surgical works.—["Who's Who."]

me bro son, Ames **Hellicar,** the successful manager of the leading bank in Sydney, N.S.W.

Thomas George **Baring,** first Earl of **Northbrook** (1826-1904), P.C., D.C.L., LL.D., F.R.S.; Under-Secretary of State for India, Home Department, and for War; Viceroy of India, 1872-1876; First Lord of the Admiralty, 1880-1885.—["Who's Who," and "Ency. Brit."]

fa fa fa, Sir Francis **Baring** (1710-1810), Chairman of East India Company, 1792-1793; created baronet 1793.—["Dict. N. Biog."]

fa fa bro, Alexander **Baring,** first Baron **Ashburton** (1774-1848), financier and statesman ; head for many years of Baring Brothers and Co. ; member of Sir Robert Peel's Cabinet of 1835 ; raised to peerage 1835 ; Commissioner to U.S.A., 1842, for Settlement "Ashburton Treaty" of Boundary Dispute.—["Dict. N. Biog."]

me me, Hon. Lady **Grey,** *née* **Whitbread** (1770-1858), prominent in every work of Christian philanthropy during twenty-four years in the Commissioner's house in Plymouth, afterwards in Ireland.—["Record" newspaper, May 26, 1858.]

fa, Francis Thornhill **Baring** (1786-1866), first Baron **Northbrook,** double first at Oxford, 1817 ; First Lord of the Admiralty.—["Dict. N. Biog."]

fa bro, Thomas **Baring** (1799-1873), financier ; refused Chancellorship of Exchequer, also a peerage ; head for many years of Baring Brothers and Co.—["Dict. N. Biog."]

fa bro, Charles **Baring** (1807-1879), double first at Oxford, 1829 ; Bishop of Gloucester and Bristol, 1856, of Durham, 1861.—["Dict. N. Biog."]

fa fa bro son, Evelyn **Baring** (*b.* 1841), first Earl **Cromer**, P.C., son of H. Baring, M.P. ; passed first into staff college from Royal Artillery ; made successively Baron, Viscount, and Earl, for services in Egypt.—["Who's Who," and "Ency. Brit."]

fa fa si son, Henry **Labouchere** (1798-1869), first Baron **Taunton,** first-class "Greats" at Oxford ; Cabinet Minister under Lord Melbourne and Lord

John Russell; raised to peerage 1859.—["Dict. N. Biog."]

me bro, Sir George **Grey** (1799-1882), Home Secretary 1846-1852, 1855-1858, 1861-1866; carried the Bill that abolished transportation.

me fa bro, Charles **Grey** (1764-1845), second Earl **Grey**, Prime Minister; carried the Reform Bill.—["Dict. N. Biog."]

me si son, Sir Edward **Jenkinson** (b. 1835), K.C.B., Private Secretary to Lord Spencer when Lord Lieutenant of Ireland.—["Who's Who."]

Descended from *fa fa fa bro*, Rev. S. **Baring-Gould** (*b.* 1834), author of numerous novels and works on theology and history.—["Who's Who."]

William Thomas **Blanford**, LL.D., F.R.S.; (1832-1905), on staff of Geological Survey of India, 1855-1882; accompanied Abyssinian Expedition and Persian Boundary Commission; sometime President of Geological Society and of Asiatic Soc. of Bengal, also of Geological Section British Assoc.; author of works dealing with the geology and zoology of Abyssinia, Persia, and India.—["Who's Who."]

fa, William **Blanford**, established a manufacturing business in London, and was a founder, and for many years Chairman, of the Thames Plate Glass Company.

me bro, Alfred **Simpson**, established a large and

successful manufacturing business in Adelaide, S. Australia.

bro, Henry Francis **Blanford,** F.R.S., for many years at the head of the Indian Meteorological Department, which he originally organized.

Right Hon. Charles **Booth** (*b.* 1840), P.C., F.R.S., economist and statistician; President of the Royal Statistical Soc., 1892-1894; originated and carried through a co-operative inquiry in minute detail into the houses and occupations of the inhabitants of London, which resulted in the volumes "Life and Labour of the People of London"; author of memoirs on allied subjects. ["Ency. Brit.," xxvi. 306; "Who's Who."]

fa fa, Thomas **Booth,** successful merchant and shipowner at Liverpool.

fa bro, Henry **Booth** (1788-1869), railway projector; co-operated with Stephenson in applying steam to locomotion, published much relating to railways, and invented mechanical contrivances still in use on railways; secretary and then railway director.—["Dict. N. Biog.," v. 382.]

fa bro, James **Booth** (1796-1880), C.B., Parliamentary draughtsman; became Permanent Secretary to the Board of Trade.

me si son, Charles **Crompton,** Fourth Wrangler, Q.C., and for some years M.P. for the Leek Division of Staffordshire.

me si son, Henry **Crompton,** a leader in the

Positivist Community; authority on Trades Union Law, and author of "Industrial Conciliation."

me si son, Sir Henry Enfield **Roscoe,** F.R.S. (*q.v.*)

Robert Holford Macdowall **Bosanquet,** F.R.S. (*b.* 1841). Fellow of St. John's Coll., Oxford; author of many mathematical and physical memoirs, chiefly in the "Philosophical Magazine."

fa fa bro, Sir John Bernard **Bosanquet** (1773-1847), Judge of Common Pleas, 1830; Lord Commissioner of Great Seal, 1835-1836.—["Dict. N. Biog."]

bro, Bernard **Bosanquet** (*b.* 1848), Prof. of Moral Philosophy, St. Andrews, since 1903; formerly Fellow of University Coll., Oxford; worked in connection with Charity Organization Society; author of many books on philosophy.—["Who's Who."]

bro, Vice-Admiral Day Hort **Bosanquet** (*b.* 1843), Commander-in-Chief West Indian Station since 1904; previously Commander-in-Chief East Indian. —["Who's Who."]

fa son, Charles Bertie Pulleine **Bosanquet** (*b.* 1834), a founder and the first secretary of the Charity Organization Society.

me fa bro, Hay **Macdowall** (*d.* 1806), Commander-in-Chief of Madras Presidency.

fa son son, Robert Carr **Bosanquet** (*b.* 1871), archæologist, director of British School of Archæology at Athens.

me si son, Ralph **Dundas,** head of large and influential firm of Dundas and Wilson, Writers to the Signet, Edinburgh. His relatives on his father's side include his—

fa, John **Dundas,** worked up the business of Dundas and Wilson into its present position.

fa fa son, Sir David **Dundas** (1799-1877), Judge-Advocate-General and Privy Councillor, 1849.—["Dict. N. Biog."]

fa fa son, George **Dundas**, Judge in Scotch Courts under the title of Lord **Manor**.

fa fa son son, David **Dundas**, K.C. (*b.* 1854), Judge in Scotch Courts under the title of Lord **Dundas;** Solicitor-General for Scotland, 1903. —["Who's Who."]

James Thomson **Bottomley** (Hon. LL.D., Glasgow), D.Sc., F.R.S., electrical engineer (1870-1899); Arnott and Thomson, Demonstrator in the University of Glasgow.—["Who's Who."]

me fa, James **Thomson.**
me bro, William **Thomson,** Lord Kelvin, F.R.S.
me bro, James **Thomson,** F.R.S.
See **Thomson** for the above.

Sir Dietrich **Brandis** (*b.* 1824), K.C.I.E., F.R.S., Superintendent of Forests, British Burmah, 1856-1864; Inspector-General of Forests to the Government of India, 1864-1883.—["Who's Who."]

fa fa, Joachim Dietrich **Brandis,** born at Hildesheim, where his ancestors had governed the town as Burgemeister for centuries; practised medicine at Brunswick, Driburg, and Pyrmont; Professor of Pathology at Kiel; ultimately physician to the Queen of Denmark.

fa, Christian August **Brandis,** secretary of the Prussian Legation in Rome, 1818; afterwards Professor of Philosophy at Bonn; went to Athens, 1837-1839, as confidential adviser to King Otho, partly with regard to the organization of schools and colleges in Greece; author of a "History of Greek Philosophy."

me bro, Friedrich **Hausmann,** Professor of Mineralogy and Geology at Göttingen; author of a "Handbook of Mineralogy."

bro, Johannes **Brandis,** for many years Kabinetsrath of H.M. Empress Augusta, Queen of Prussia.

me si son, Julius **von Hartmann,** commanded a cavalry division in the Franco-German War; after the war was Governor of Strasburg.

Alexander Crum **Brown** (*b.* 1838), M.D., D.Sc., LL.D., F.R.S., Professor of Chemistry at Edinburgh University since 1869; president of the Chemical Soc., London, 1892-1893.—["Who's Who."]

fa fa fa, John **Brown** (1722-1787), of Haddington, Biblical commentator; as a herd boy taught

himself Latin, Greek, and learned Hebrew with the aid of a teacher, at one time a pedlar; served as a soldier in the Edinburgh garrison, 1745; minister to the Burgher congregation at Haddington, 1750-1787; acted as Professor of Divinity to Burgher students after 1767.—["Dict. N. Biog."]

fa fa, John **Brown** (1754-1832), Scottish divine; minister of Burgher church at Whitburn, 1776-1832; wrote memoirs of James Hervey, 1806, and many religious treatises.—["Dict. N. Biog."]

fa, John **Brown** (1784-1858), minister of Burgher church at Biggor, 1806; of Secession Church at Edinburgh, 1822; D.D., 1830; Professor of Exegetics Secession Coll., 1834, and in United Presbyterian Coll. 1847; author of many exegetical commentaries.—["Dict. N. Biog."]

me bro, Walter **Crum**, F.R.S., manufacturer at Thornliebank, near Glasgow; a successful man of business and a very able chemist.

fa son, John **Brown** (1810-1882), M.D., practised in Edinburgh with success; author of "Horæ Subsecivæ," "Rab and his Friends."—["Dict. N. Biog."]

fa si son, Robert **Johnstone** (*b.* 1832), D.D., LL.B., Professor of New Testament Literature and Exegesis in the United Free Church Coll., Aberdeen; has published works on the New Testament. —["Who's Who."]

si son, Charles **Stewart-Wilson**, Postmaster-General, Punjab, since 1899.—["India List."]

me bro son, Alexander **Crum**, managing director

of the "Thornliebank Co.," for some time M.P. for Renfrewshire.

Sir James Crichton **Browne** (*b.* 1840), M.D., LL.D., F.R.S., Lord Chancellor's Visitor in Lunacy since 1875; Vice-President and Treasurer Royal Institution since 1889; author of various works on mental and nervous diseases. —["Who's Who."]

me fa, Andrew **Balfour,** successful printer in Edinburgh; collaborated with Sir David Brewster in production of the "Edinburgh Encyclopædia," the forerunner of the "Ency. Brit."; one of the leaders of the Free Church disruption.

fa, William Alexander Francis **Browne,** F.R.S.E., physician; largely instrumental in introducing humane methods for the treatment of the insane into Scotland; was appointed First Scotch Commissioner in Lunacy; author of works on mental diseases.

me bro, John Hutton **Balfour** (1808-1884), M.D., LL.D., F.R.S. and F.R.S.E., Professor of Botany at Glasgow, 1841; and at Edinburgh, 1845; wrote botanical text-books. —["Dict. N. Biog."]

bro, John Hutton **Balfour-Browne,** K.C. (*b.* 1845), Leader of the Parliamentary Bar; Registrar and Secretary to Railway Comm., 1874; author of numerous legal works.—["Who's Who."]

me bro son, Isaac Bayley **Balfour,** M.D., D.Sc., LL.D., F.R.S. (*b.* 1853), King's Botanist in Scot-

land; Regius Keeper of Royal Botanic Garden, Edinburgh; Professor of Botany at Glasgow and at Oxford, and since 1888 at Edinburgh.—["Who's Who."]

Sir John Scott **Burdon-Sanderson,** Bart., *cr.* 1899, M.D., D.C.L., LL.D., D.Sc., F.R.S.; held a succession of important offices, beginning with Inspector Med. Dep. Privy Council, 1860-1865; Superintendent Brown Institution, 1871-1878; Professor of Physiology University Coll., London, 1874-1882; in Oxford, 1882-1895; President Brit. Assoc., 1893; Regius Professor of Medicine at Oxford, 1895-1904; served on three Royal Commissions; author of many physiological memoirs.—["Ency. Brit.," xxvi. 464; "Who's Who."]

fa fa, Sir Thomas **Burdon,** Kt., several times Mayor of Newcastle, knighted for his services in quelling a riot.

me fa, Sir James **Sanderson,** Bart., M.P., Lord Mayor of London; a successful merchant.

fa, Richard **Burdon-Sanderson,** graduated first class and gained Newdigate prize; Fellow of Oriel Coll., Oxford; was Secretary to Lord Chancellor Eldon.

bro, Richard **Burdon-Sanderson,** the first promoter of the "Conciliation Board" of coal-owners and colliers at Newcastle-on-Tyne, and of the first reformatory in Northumberland.

si son, Rt. Hon. Richard Burdon **Haldane** (b. 1856), P.C., M.P., high honours at Edinburgh and three other Scotch universities; author of "Life of Adam Smith" and of "Memoirs on Education." —["Who's Who."]

si son, John Scott **Haldane** (*b.* 1860), *q.v.*, M.D., F.R.S., University Lecturer on Physiology at Oxford; joint editor and founder of "Journal of Hygiene."—["Who's Who."]

si da, Elizabeth Sanderson **Haldane** (*q.v.*).

More distant kinsmen and connections:

fa me bro, John **Scott**, first Earl of **Eldon** (1751-1838), famous Lord Chancellor of England.—["Dict. N. Biog."]

fa me bro, William **Scott** (1745-1836), first Baron **Stowell,** eminent maritime and international lawyer; judge of High Court of Admiralty, 1798-1828).—["Dict. N. Biog."]

wife's bro, **Farrer,** first Lord **Herschell,** Lord Chancellor of England.

Charles **Chree,** Sc.D. (Camb.), LL.D. (Aberdeen), F.R.S. (1860), Superintendent Observatory Department, National Physical Lab.; graduated Aberdeen, 1879, obtaining gold medal awarded to the most distinguished graduate in Arts of the year; Sixth Wrangler, Cambridge, 1883; first division Math. Tripos, Part III.; first class Natural Sciences Tripos,

Part II.; and Fellow of King's College, 1885; re-elected as Research Fellow, 1890.—["Who's Who."]

fa, Charles **Chree,** Hon. D.D. Aberdeen University; for many years clerk to Presbytery of Meigle, and convener of committee for examining divinity students in St. Andrew's University. Had considerable reputation in Church of Scotland for general scholarship, and especially for knowledge of Hebrew.

bro, William **Chree,** after graduating with first class mathematical honours at Aberdeen University, obtained a "Fullerton" mathematical scholarship. In addition to prizes in mathematics and physics at Aberdeen, obtained also prizes in Latin, natural history, and moral philosophy. At Edinburgh University was awarded either first or second prizes in Scots Law, conveyancing, civil law, public law, and constitutional history. Practises as advocate at Scotch Bar.

bro, Alexander Bain **Chree,** died young, having graduated at Aberdeen University with first class honours in mathematics, obtaining prizes in mathematics, physics, Latin, Greek, moral philosophy, and natural history.

si, Jessie Scarth **Chree,** obtained two prizes and honours in at least four subjects (French, logic, Latin, physics) in the Edinburgh University local examinations.

Arthur Herbert **Church** (*b.* 1834), F.R.S., D.Sc., Professor of Chemistry at Royal Academy of Arts since 1879; discoverer of turacin, also of churchite and other new minerals; President of the Mineralogical Society, 1898-1901; author of various works on English pottery and porcelain, on precious stones, on food, and on the chemistry of paints and painting.—["Who's Who."]

bro, Henry Francis **Church** (1824-1899), solicitor, Chief Clerk in Chancery, and Master of the High Court of Judicature.

bro, Alfred John **Church** (Rev.), (*b.* 1829), Headmaster of Henley and of Retford Grammar Schools; Professor of Latin at Univ. Coll., London, 1880-1888; prize poem, Oxford, 1883; author of various works dealing with classical subjects.—["Who's Who."]

fa si da son, Sir John R. **Seeley,** K.C.M.G. (1834-1895), Professor first of Latin at Univ. Coll., London, and afterwards of Modern History at Cambridge; published in 1865 "Ecce Homo," a work which attracted immediate attention and provoked a storm of controversy; also works on history and political science.—["Dict. N. Biog."]

Sydney Monckton **Copeman,** F.R.S., M.D. (Camb.), Medical Inspector Local Government Board; Member of Council of Epidemiological Society; Research Scholar and Special Com-

missioner British Medical Association; recipient of many gold medals and prizes of importance. —[" Who's Who."]

fa fa fa, Peter **Copeman,** founder, with his brother Robert, of Copeman's Bank, Aylsham, Norfolk (now incorporated with Barclay's); successful merchant.

fa, Arthur Charles **Copeman,** M.B., London; gold medallist in anatomy and physiology, University of London; entered Army Medical Service on the nomination of the Chancellor of the University; subsequently entered the Church, and became Hon. Canon of Norwich Cathedral; for many years Chairman of Norfolk and Norwich Hospital, and of Norwich School Board and Board of Guardians.

fa bro, Edward **Copeman,** M.D., Aberdeen; President British Medical Association; consulting physician to Norfolk and Norwich Hospital; author and inventor of gynæcological instruments and of special methods of operation.

James Henry **Cotterill,** F.R.S. (*b.* 1836), Lecturer and subsequently Vice-Principal of the Royal School of Naval Architecture, South Kensington; Professor of Applied Mechanics at the Royal Naval Coll., Greenwich, 1873-1897.—[" Who's Who."]

fa bro, Thomas **Cotterill,** eminent clergyman at Sheffield; A.B., Cambridge, 1801.—[" Grad. Cant."]

bro, Joseph Morthland **Cotterill,** D.D. (hon. causa), St. Andrew's University.

fa son, Henry **Cotterill,** Senior Wrangler, 1835; second classic, Fellow of St. John's Coll., Cambridge; Bishop of Edinburgh.—["Grad. Cant."]

bro son, Joseph M. **Cotterill** (*b.* 1851), Surgeon to Edinburgh Royal Infirmary, Lecturer at Edinburgh School of Medicine.—["Who's Who."]

bro son, Arthur **Cotterill,** Head of Permanent Way Department Egyptian Railway Administration.

fa bro son, Thomas **Cotterill,** third wrangler, 1832; fellow of St. John's Coll., Cambridge; one of the earliest members of the London Mathematical Soc., to which he contributed many papers of importance.—["Grad. Cant."]

George Howard **Darwin** (*b.* 1845), F.R.S., second wrangler, 1868; Plumian Professor of Astronomy and Experimental Philosophy, Cambridge; author of many papers in the "Philosophical Transactions" relating to tides, physical astronomy, and cognate subjects; President of British Association in 1905 at Cape Town.—["Who's Who."]

fa fa fa, Erasmus **Darwin,** M.D., F.R.S. (1731-1802), physician, poet, and philosopher; author of "Botanic Garden," "Zoonomia," and other works, in which he maintained a view of evolution subsequently expounded by Lamarck.—["Life," by Ch. R. Darwin, and "Dict. N. Biog."]

fa fa, Robert Waring **Darwin** (1766-1848), M.D., F.R.S., sagacious and distinguished physician; described by his son, Charles R. Darwin, as "the wisest man I ever knew."—["Life and Letters of Charles R. Darwin," i. 10-20.]

fa fa bro, Charles **Darwin** (1758-1778), of extraordinary promise, gained first gold medal of Æsculapian Society for experimental research; died from a dissection wound, aged twenty; many obituary notices.—["Life and Letters of Charles R. Darwin," i. 7.]

fa bro, Erasmus **Darwin.** (See Carlyle's inexact description, and the appreciations of him by his brother and others, in "Life and Letters of Charles R. Darwin," i. 21-25.)

fa, Charles Robert **Darwin** (1809-1882), F.R.S., the celebrated naturalist. The dates of his works are "Voyage of the *Beagle,*" 1840; "Origin of Species," 1859; followed by a succession of eight important volumes ranging from 1862 to 1881, each of which confirmed and extended his theory of descent. Among the very numerous biographical memoirs it must suffice here to mention "Life and Letters," by Francis Darwin, and "Dict. N. Biog."

me me fa, Josiah **Wedgwood**, F.R.S. (1730-1795), the famous founder of the pottery works.—["Dict. N. Biog."]

me me bro, Thomas **Wedgwood** (1771-1805), an experimenter in early life, and in one sense the first to create photography; a martyr to ill-health later.

Sydney Smith knew "no man who appeared to have made such an impression on his friends," his friends including many of the leading intellects of the day.—["Dict. N. Biog."]

me fa fa (she was her husband's *me bro dau*), Josiah **Wedgwood,** F.R.S.; see above.

me bro, Hensleigh **Wedgwood** (1803-1891), author of "Etymological Dictionary" and of other works, partly mathematical.—["Dict. N. Biog."]

me bro dau, Julia **Wedgwood,** essayist.

bro, Francis **Darwin** (*b.* 1848), F.R.S., botanist; biographer of his father; reader in botany at Cambridge, 1876-1903; foreign sec. Royal Society. Author of botanical works and memoirs.—["Who's Who."]

bro, Major Leonard **Darwin** (*b.* 1850), late R.E., second in the examination of his year for Woolwich; served on several scientific expeditions, including transit of Venus of 1874 and 1882; Staff Intelligence Dep. War Office, 1885-1890; M.P. for Lichfield, 1892-1895. Author of "Bimetallism," "Municipal Trade."—["Who's Who."]

bro, Horace **Darwin** (*b.* 1851), F.R.S., engineer and mechanician; joint founder of the Cambridge Scientific Instrument Company and its proprietor. It is now a limited company, of which he is chairman.—["Who's Who."]

More distant relatoin:

fa fa si son, Francis **Galton,** F.R.S. (*q.v.*).

Sir John **Evans** (*b.* 1823), K.C.B., D.C.L., LL.D., Sc.D., F.R.S., President of the Royal Numismatic Society since 1874; trustee of the British Museum; treasurer and vice-president of the Royal Society during twenty years; has been president of numerous learned societies; author of works on the coins of the Ancient Britons, and on their stone and bronze implements.—["Who's Who," and "Ency. Brit."]

fa fa, Lewis **Evans** (1755-1827), F.R.S., F.A.S., mathematician; first Mathematical Master of R.M.A., Woolwich.—["Dict. N. Biog."]

fa, Arthur Benoni **Evans** (1781-1854), D.D., miscellaneous writer; Professor of Classics and History, R.M.C., 1805-1822; headmaster of Market Bosworth Grammar School, 1825-1854.—["Dict. N. Biog."]

me bro and *wi fa*, John **Dickinson** (1782-1869), F.R.S., inventor of paper-making machine.

bro, Sebastian **Evans**, LL.D., poet, artist, and author.

si, Anne **Evans** (1820-1870), poet and musician, composer.—["Dict. N. Biog."]

son, Arthur John **Evans** (*b.* 1851), D.Litt. (Oxon), Hon. D.Litt. (Dublin), Hon. LL.D. (Edinburgh), F.R.S., Keeper of Ashmolean Museum, Oxford, since 1884; in 1893 started investigations in Crete, which resulted in the discovery of the pre-Phœnician script; in 1900-1905 excavated the prehistoric palace of Knossos.—["Who's Who."]

me bro son and *wi bro*, John **Dickinson** (1815-1876), writer on India, and founder of Indian Reform Society, 1853.—["Dict. N. Biog."]

Right Hon. Sir Edward **Fry** (*b.* 1827), D.C.L., LL.D., F.R.S., Judge of High Court, Chancery Division, 1877-1883; Lord Justice of Appeal, 1883-1892; President of the Royal Com. on the Irish Land Acts, 1897-1898; Chairman of the Court of Arbitration under the Metropolitan Water Act, 1902; member of the Permanent Court of International Arbitration at the Hague; author of a "Treatise on the Specific Performance of Contracts," of "British Mosses," and "The Mycetozoa."—["Who's Who."]

fa bro, Francis **Fry** (1803-1886), member of the firm of J. S. Fry and Co., Bristol; a great authority on bibliography.—["Dict. N. Biog."]

bro, Right Hon. Lewis **Fry** (*b.* 1832), M.P. for Bristol, 1878-1885; N. Bristol, 1885-1892, and 1895-1900.—["Who's Who."]

bro, Joseph Storrs **Fry,** has maintained and extended a large manufacturing business, and taken an active part in philanthropic work.

fa fa fa, Joseph **Fry** (1728-1787), practised medicine in Bristol, afterwards manufactured cocoa and chocolate; started type-founding business with William Pine, 1764.—["Dic. N. Biog."]

fa fa bro, Edmund **Fry** (1754-1835), M.D. of Edinburgh; devoted his life to the business of type-

founding, and to the philological studies connected with it.—["Dic. N. Biog."]

wife, Mariabella, *née* **Hodgkin,** *dau* of the historian.

Francis **Galton** (*b.* 1822), D.C.L., Hon. Sc.D. (Camb.), F.R.S. traveller, anthropologist and biometrician; author of many works and memoirs on these and analogous subjects, including meteorology, heredity, identification by finger-prints; latterly a promoter of the study of Eugenics. Gold medal R. Geog. Soc., 1853, for travels in Damaraland, S. Africa; Royal medal, 1886, and Darwin medal, 1903, of the Royal Soc., for applications of measurement to human faculty; Huxley medal of the Anthropol. Institute, 1901.—["Ency. Brit.," and "Who's Who."]

fa si, **Schimmelpenninck** (1778-1856), Mrs. Mary Anne, author of various works, mostly theological, and on the Port Royalists and Moravians.—["Dic. N. Biog."]

fa fa fa, Samuel **Galton** (1720-1799), cultured Quaker philanthropist, contractor and banker.—[See life of above M. A. S., and the "Annual Register."]

fa me ½ *bro*, Robert Barclay **Allardice** (1779-1854), commonly known as Capt. **Barclay** of Ury, pedestrian, noted for his walking feats, agriculturist. —["Dic. N. Biog."]

me fa, Erasmus **Darwin,** M.D., F.R.S.—See DARWIN.

me ½ *bro son*, Charles Robert **Darwin**, F.R.S., the naturalist.—See DARWIN.

si son, Edward G. **Wheler** (*b.* 1850), a founder and president of the Land Agents' Society; commissioner and estate agent during sixteen years for 155,000 acres of various descriptions of property.

fa bro son, Sir Douglas **Galton** (1822-1901), K.C.B., D.C.L., LL.D., F.R.S., passed from Woolwich to Royal Engineers with the best examination then on record, obtaining first prize in every subject, 1840; Inspector of Railways, and Secretary of Railway Dept., Board of Trade, 1856; Assistant Inspector-General of Fortifications, 1860; designed and constructed the Herbert Hospital at Woolwich; Director of Public Works and Building in H.M. Works, 1870-1875; General Secretary of British Assoc., 1870-1895; President of it, 1895; authority on hospital construction, and on the sanitation, ventilation, etc., of public buildings.—["Dict. N. Biog.," Suppl. ii.]

His kindred by his mother's side are:

me fa fa, Jedediah **Strutt** (1726-1797), hosiery manufacturer and cotton spinner; inventor of machine for making ribbed stockings; partner of Sir Richard Arkwright.—["Dict. N. Biog."]

me fa, Joseph **Strutt** (1765-1844), first Mayor of Derby, 1835, and donor of the arbo-

retum ; great friend of the poet Thomas Moore. —["Dict. N. Biog.," and "Life and Letters" of T. Moore.]

me fa bro, William **Strutt** (1756-1830), ingenious mechanician and inventor; friend of Erasmus Darwin, R. L. Edgeworth, Robert Owen, Joseph Lancaster, Samuel Bentham, Dalton, etc.; originator and designer of the first Derby Infirmary.—["Dict. N. Biog."]

me fa bro son, Edward **Strutt** (1801-1880), created Baron **Belper,** 1856; M.P., F.R.S.; a philosophical Radical, intimate with Bentham, the Mills, and Macaulay; Chancellor of the Duchy of Lancaster, 1852-1854; President of University Coll., London, 1871.—["Dict. N. Biog."]

me fa bro son, Anthony **Strutt** (1791-1875), ingenious mechanician.

me me si son, Sir Charles **Fox** (1810-1874), constructing engineer of London and Birmingham Railway; knighted after designing Exhibition buildings in Hyde Park, 1851; made first narrow-gauge line in India; built Berlin Waterworks.—["Dict. N. Biog."]

Sir Archibald **Geikie** (*b.* 1835), F.R.S., and many foreign distinctions; Director-General Geological Survey of United Kingdom, and Director Museum Practical Geology in Jermyn Street, 1882-1901; medallist of the Royal and

other societies; Secretary of the Royal Society; author of numerous works on geology, also of biographies of David Forbes, Sir R. Murchison, and Sir A. Ramsay.—["Who's Who," "Ency. Brit."]

fa, James Stewart **Geikie** (1811-1883), musician and musical critic; author of much psalmody, and of several well-known Scottish melodies, such as "My Heather Hills."

fa bro, Walter **Geikie** (1795-1837), R.S.A., painter and draughtsman; author of "Etchings Illustrative of Scottish Character and Scenery."—["Dict. N. Biog."]

me bro, William **Thoms**, master mariner; subsequently teacher of navigation in New York; author of an elaborate treatise on navigation.

bro, James **Geikie** (*b.* 1839), LL.D., D.C.L., F.R.S.; Professor of Geology and Mineralogy since 1882, and Dean of the Faculty of Science Edinburgh; author of many works on geology, and of "Songs and Lyrics by Heinrich Heine."—["Who's Who," and "Ency. Brit."]

fa bro son, Cunningham **Geikie** (*b.* 1824), LL.D., D.D., a clergyman; author of many religious works. —["Who's Who."]

fa bro son, Walter Bayne **Geikie**, Professor of Anatomy, and Dean of Medical Faculty, Trinity Coll., Toronto.

Lieutenant-Colonel Henry Haversham **Godwin-Austen** (*b.* 1834), F.R.S., geologist; Topographical Assistant to the Trigonometric Survey of India; surveyed the high country and glaciers of Kashmir and by Ladak, also between Darjeeling and Punakha; numerous scientific memoirs.—["Who's Who."]

fa fa fa, Robert **Austen**, archæologist and coin collector; he was one of the few in his time who understood the value of local maps; a good surveyor of his own property and neighbourhood.

fa fa, Sir Henry E. **Austen,** interested in forestry, and planted largely on his estate; he also knew the value of maps, and had excellent ones of his property.

fa, Robert Alfred C. **Godwin-Austen** (1808-1884), F.R.S., geologist, took additional surname of Godwin; wrote important papers on the geology of Devonshire, Southern England, and parts of France.—["Dict. N. Biog."]

me fa, Major-General Sir Thomas H. **Godwin** (1784-1853), K.C.B., served in Hanover and the Peninsula, Commander-in-Chief in second Burmese War.—["Dict. N. Biog."]

bro, Harold **Godwin-Austen,** Assistant-Commissioner to the Andaman Islands for thirteen years; was selected by Ney Elias to accompany him on a mission to Yarkand and Kashmir; is now a Deputy Commissioner in S. India.

me, Maria Elizabeth **Godwin-Austen**, was cer-

tainly above the average of women of her time; interested in natural history; drew well in pen and pencil; was an accomplished musician.

si son, Bertram H. M. **Hewett**, civil engineer; surveyed the great glaciers of the Mustakh Range, Kashmir, and elsewhere; is now in sole charge of main shaft of tunnel under the river in New York.

Francis **Gotch** (*b.* 1853), D.Sc., F.R.S., Waynflete Professor of Physiology at Oxford; formerly Holt Professor of Physiology at University Coll., Liverpool; author of many scientific papers.—["Who's Who."]

me fa, Ebenezer **Foster**, founder of well-known banking firm of Messrs. Foster, Cambridge.

fa, Fredrick William **Gotch**, LL.D., late President of Baptist College, Bristol; Hebrew scholar; member of committee for the authorized version of the Old Testament.

fa bro son, Thomas Cooper **Gotch** (*b.* 1854), well-known painter.—["Who's Who."]

wi bro, Sir Victor **Horsley** (*q.v.*).

Right Hon. Sir Mountstuart Elphinstone **Grant Duff** (*b.* 1829), G.C.S.I., P.C., F.R.S., sometime Under-Secretary of State for India and the Colonies, and Governor of Madras; has been Lord Rector of Aberdeen University, and president of many learned societies; King's Trustee of British Museum since 1903; author

of political, literary, and biographical works.—["Who's Who."]

fa, James **Grant Duff** (1789-1858), while still a lieutenant, aged twenty-eight, reduced the Sattara State to order after the overthrow of the Peishwa, and restored it to the descendant of its ancient princes, whom he guided as resident till his health broke down at the age of thirty-three. Returning to this country, he wrote the "History of the Mahrattas."—["Dict. N. Biog."]

me fa, Sir Whitelaw **Ainslie** (1767-1837), surgeon in the East India Company's service, 1788-1815; published "Materia Medica of Hindoostan," and other works.—["Dict. N. Biog."]

son, Arthur Cuninghame **Grant Duff** (*b.* 1861), lately First Secretary to H.M.'s Legation, Mexico.

son, Evelyn Mountstuart **Grant Duff** (*b.* 1863), First Secretary to H.M.'s Legation, Persia.

son, Adrian **Grant Duff** (*b.* 1869), Staff-Captain (Intelligence Dept.) Army Headquarters.

John Scott **Haldane** (*b.* 1860), F.R.S., University Lecturer in Physiology, Oxford; joint editor and founder of "Journal of Hygiene"; has served on several departmental committees, and carried out special inquiries for Government departments; author of "Blue Books on the Cause of Death in Colliery Explosions," 1895; "Ankylostomiasis in Mines," 1902-1903, etc.—["Who's Who."]

fa fa, James Alexander **Haldane** (1768-1851), in the East India Company's naval service till 1797; then devoted himself to itinerary evangelization in Scotland; author of several theological treatises.—["Dict. N. Biog."]

fa fa bro, Robert **Haldane** (1764-1842), in the Royal Navy till 1797; sold his estate in Stirlingshire to devote the proceeds to missions in India, but was prevented by the Government from carrying out this scheme. Carried on evangelistic work in Geneva and the South of France, and co-operated in Scotland with his brother, endowing places of worship and training young ministers. Wrote several theological treatises.—["Dict. N. Biog."]

fa bro, Daniel Rutherford **Haldane** (1824-1887), M.D., LL.D., President of Edinburgh College of Physicians.—["Dict. N. Biog."]

me bro, Sir John **Burdon-Sanderson,** Bart, M.D., F.R.S., etc.—(*q.v.*)

bro, Rt. Hon. Richard Burdon **Haldane,** P.C., M.P., LL.D., a distinguished politician; author of books on philosophy.—["Who's Who."]

si, Elizabeth Sanderson **Haldane,** authoress of "Life of Ferrier," translator of Hegel's "History of Philosophy"; promoter of education and of reforms in Scotland.

fa bro son, Alexander Chinnery **Haldane,** LL.D., Bishop of Argyll and the Isles.

fa bro son, Lieutenant-Colonel James Aylmer Lowthorpe **Haldane** (*b.* 1862), D.S.O., served with distinction in Chitral, Tirah, and South Africa, and

has won rapid promotion; author of "How we Escaped from Pretoria."—["Who's Who."]

me fa me bro, John **Scott,** first Earl of **Eldon** (1751-1838), famous Lord Chancellor of England. —["Dict. N. Biog."]

me fa me bro, William **Scott,** first Baron **Stowell** (1745-1836), Judge of High Court of Admiralty.—["Dict. N. Biog."]

fa fa me bro, Adam **Duncan** (1731-1804), cr. Viscount **Duncan** of **Camperdown** 1797, after the Battle of Camperdown, in which he defeated the Dutch Admiral, De Winter.—["Dict. N. Biog.," and "Life," by his great-grandson, the present Earl of Camperdown.]

fa me me bro, Sir Ralph **Abercromby** (1734-1801), General; served with distinction in Flanders, 1795; commanded expedition against French in West Indies, 1795; commanded troops in Mediterranean, 1800; defeated French at Alexandria, where he died of his wounds.—["Dict. N. Biog."]

fa me me bro, Sir Robert **Abercromby** (1740-1827), General; Governor and Commander-in-Chief, Bombay, 1790; reduced Tippoo Sultan, 1792; conducted second Rohilla War.—["Dict. N. Biog."]

William Abbott **Herdman** (*b.* 1858), D.Sc., F.R.S., P.L.S., General Secretary of British Association, Professor of Natural History, University of Liverpool, since 1881; has worked particularly at marine biology; was one of the

founders of the Port Erin Biological Station, and of the seafish hatchery at Piel; was sent to Ceylon 1901-1902 to investigate the pearl oyster fishery for the Government (results published by the Royal Society, 1903-1905); author of numerous zoological works.—["Who's Who."]

fa me, Sophia **Herdman,** great ability and strength of character shown by the way she brought up her four sons, after having been left a widow early in life.

fa, Robert **Herdman** (1829-1888), R.S.A., well known in Scotland as a portrait and historical painter; also a good Greek scholar, an antiquary, and student of Shakespearian literature.—["Dict. N. Biog."]

fa bro, William **Herdman,** Presbyterian minister at Rattray; an antiquary, good botanist, and geologist.

fa bro, James Chalmers **Herdman,** D.D. (hon.), Presbyterian minister of Melrose; a popular preacher and convener of foreign missions.

fa bro son, James Chalmers **Herdman,** D.D. (hon.), occupies a leading position in the Scottish Church in Canada.

Sydney John **Hickson** (*b.* 1859), F.R.S., D.Sc., Professor of Zoology, Owens Coll., Manchester, since 1894; author of "A Naturalist in North

Celebes," "The Fauna of the Deep Sea," "The Story of Life in the Seas," and many scientific memoirs.—["Who's Who."]

fa bro, William Edward **Hickson** (1803-1870), educational writer; author of "Time and Faith," etc.; editor of "Westminster Review," 1840-1852.—["Dict. N. Biog."]

me bro, Sir Sydney Hedley **Waterlow** (*b.* 1822), K.C.V.O., first Bart., Lord Mayor of London, 1872-1873; M.P. for co. Dumfries, 1868-1869; Maidstone, 1874-1880; Gravesend, 1880-1885; very active philanthropist.—["Who's Who."]

me bro son, Sir Ernest **Waterlow** (*b.* 1850), R.A., President Royal Society Painters in Water-colours. —["Who's Who."]

fa si da and *me bro da*, Mrs. Ruth **Homan,** educationalist; member of London School Board; co-opt. member Education Committee L.C.C.

Leonard **Hill,** F.R.S. (*b.* 1866), Hunterian Professor Royal College Surgeons, previously Demonstrator of Physiology, Oxford, and Assistant-Professor of Physiology, University Coll., London; author of books and memoirs on physiology.—["Who's Who."]

fa fa, Arthur **Hill,** headmaster of Bruce Castle School; reformer of education.

fa, G. Birkbeck **Hill,** author of many books on eighteenth-century literature.

fa bro, Edward Bernard Lewin **Hill** (*b.* 1834), C.B., retired as senior Assistant-Secretary-General Post Office.—["Who's Who."]

fa bro, Sir John Edward Gray **Hill** (*b.* 1839), President of the Incorporated Law Society, and of the International Law Association, 1903-1904; author of "With the Beduins" and papers on various subjects connected with maritime law, etc.—["Who's Who."]

me bro, Sir John **Scott** (*b.* 1841), K.C.B., judge in the High Court, Bombay; appointed to reform administration of criminal law in Egypt.—["Who's Who."]

bro, Norman **Hill,** Secretary to the Shipping Association; a distinguished Liverpool lawyer, and writer and authority on the Economics of Shipping.

fa fa fa, Thomas Wright **Hill** (1736-1851), schoolmaster and stenographer.—["Dict. N. Biog."]

fa fa bro, Sir Rowland **Hill** (1795-1879), inventor of penny postage; as Chairman of the Brighton Railway introduced express and excursion trains, 1843-1846.—["Dict. N. Biog."]

fa fa bro, Edwin **Hill** (1793-1876), inventor and author; supervisor of stamps at Somerset House; with Mr. De la Rue invented machine for folding envelopes; exhibited 1851.—["Dict. N. Biog."]

fa fa bro, Matthew Davenport **Hill** (1792-1872). first recorder of Birmingham; reformer of criminal law and of the treatment of criminals.—["Dict. N. Biog."]

Sir Joseph Dalton **Hooker** (*b.* 1817), G.C.S.I., F.R.S., President Royal Society, 1872-1877, eminent botanist and traveller; director of the Royal Gardens, Kew, 1855-1865; naturalist to H.M.S. "Erebus" in Antarctic expedition, 1839-1843; botanical travels in the Himalaya, 1847-1851; Morocco and Atlas in 1871; California and Rocky Mountains, 1877; many botanical publications, including "Genera Plantarum."—["Ency. Brit.," xxix., 324; "Who's Who."]

me fa, Dawson **Turner,** F.R.S. (1775-1858).—See PALGRAVE.

fa, Sir William Jackson **Hooker** (1758-1865), F.R.S., eminent botanist; director of the Royal Gardens, Kew, which he greatly extended and threw open to the public, and where he founded the museum of economic botany; Regius Professor of Botany, Glasgow, 1820; knighted 1847; many botanical publications.—["Dict. N. Biog."]

me si sons, the four brothers **Palgrave.**—See PALGRAVE.

Sir Victor A. Haden **Horsley,** F.R.S., M.D. (*b.* 1857), eminent surgeon and operator; Professor-Superintendent of Brown Institution, 1884-1890; Professor of Pathology University College, 1893-1896.

fa fa, William **Horsley** (1774-1858), Mus. Bac. Oxford, musical composer, especially of glees, and

writer on musical topics.—["Dict. N. Biog.," and Grove's "Dict. of Music."]

me fa, Charles Thomas **Haden,** a rising London physician, who initiated a treatment for gout, much noted at the time (*d.* young in 1823).—[Unpublished information.]

fa, John Callcott **Horsley,** R.A., distinguished painter.—["Who's Who."]

fa bro, Charles Edward **Horsley** (1822-1876), composer of oratorios; best known in America; author of "Text-book of Harmony."—["Dict. N. Biog.," and Grove's "Dict. of Music."]

me bro, Sir F. Seymour **Haden** (*b.* 1818), surgeon. Founder and President of the Royal Society of Painter-Etchers. A well-known sanitarian, especially in respect to the disposal of the dead. Grand Prix, Paris, 1889 and 1900; many publications.—["Who's Who."]

fa si son, Isambard **Brunel,** Chancellor to the Diocese of Ely; ecclesiastical barrister.

Ancestors in more remote degrees:

fa me fa, John Wall **Callcott** (1766-1821), composer, mainly of glees and catches; published "Musical Grammar," 1806.—["Dict. N. Biog.," and Grove's "Dict. of Music."]

fa me fa bro, Sir Augustus Wall **Callcott,** R.A. (1779-1844), distinguished painter, mainly of landscapes; knighted, 1837.—["Dict. N. Biog."]

me fa fa, Thomas **Haden**, the principal doctor

and three times Mayor of Derby.—[Unpublished information.]

wife, née **Bramwell.**

wife's fa, Sir Frederick **Bramwell,** Bart. (1818-1903), F.R.S., eminent engineer; President British Association, 1888; Pres. Institution of Civil Engineers, 1884-1885; Hon. Sec. Royal Institution.—["Who's Who."]

wife's fa bro, Lord **Bramwell** (1808-1902), Judge, 1856; Lord Justice, 1876-1881; raised to peerage, 1882.—["Dict. N. Biog.," Suppl. i.]

John **Joly** (*b.* 1858), D.Sc., F.R.S., Professor of Geology and Mineralogy in the University of Dublin since 1897; has published many contributions to the Royal Soc., Royal Dublin Soc., etc.—["Who's Who."]

fa fa, Henry Edward **Joly**, divine and physician; is credited with scientific medical views in advance of his time.

me fa, Frederick, Comte de **Lusi,** statesman, author and linguist; resident Minister of the King of Prussia in London, St. Petersburg, Greece, etc.; made one of the earliest ascents of Mont Blanc, in 1816.

fa, John Plunket **Joly** (Rev.), accomplished as a painter of bird, insect, and plant life; left a remarkable collection of pictures behind him; died early.

me bro, Frederick, Comte de **Lusi**, soldier; distinguished himself in the German-Danish War of 1848; decorated for valour in saving the life of General Halkett.

fa bro, Jasper Robert **Joly**, remarkable precosity as a boy; obtained distinguished college successes in classics in his thirteenth year at Trinity Coll., Dublin. Devoted his life to the collection of Hogarth and Bewick, upon whom he was an authority.

fa si, Mary **Joly**, died young; left a remarkable collection of minutely accurate paintings of birds and flowers.

me fa fa, Spiridion, Comte de **Lusi**, the founder of the de Lusi family, ennobled by Frederick the Great for statesmanship.—["Percy Anecdotes."]

Kelvin, Lord.—See WILLIAM THOMPSON.

Alfred Bray **Kempe** (*b.* 1849), F.R.S., Chancellor of the Dioceses of Newcastle, Southwell, and St. Albans; Treasurer and Vice-President of the Royal Society from 1899; has published works on mathematics.—["Who's Who."]

fa fa, Alfred John **Kempe** (1784-1846), distinguished antiquary; published works on Holwood Hill, Kent, and St. Martin-le-Grand Church, London.—["Dict. N. Biog."]

fa, John Edward **Kempe** (*b.* 1810), late Rector of St. James's, Piccadilly; Hon. Chaplain to the King since 1901.—["Who's Who."]

bro, John Arrow **Kempe,** C.B. (*b.* 1846), Comptroller and Auditor-General.—["Who's Who."]

bro, Harry Robert **Kempe** (*b.* 1852), Principal Technical Officer of the Postal Telegraph Department; author of "Handbook of Electrical Testing," and other works which have gone through many editions; for many years editor of "Electrical Review."—["Who's Who."]

bro son, Edward **Kempe,** Captain and Gold Medallist, Radley School; scholar of Lincoln Coll., Oxford; editor of "The Huia," New Zealand.

fa fa si, Anna Eliza **Bray,** *née* **Kempe** (1790-1883), historical novelist; completed "Monumental Effigies of Great Britain," commenced by her first husband, Charles Alfred Stothard.—["Dict. N. Biog."]

[For further particulars see "A History of the Kempe and Kemp Families."]

Edwin Ray **Lankester** (*b.* 1847), LL.D., F.R.S., celebrated zoologist; Director of Natural History Departments, British Museum, since 1898; Fullerian Professor of Physiology and Comparative Anatomy, Royal Inst., 1898-1900; Linacre Professor of Comparative Anatomy, Oxford, 1891-1898; numerous other distinctions."—["Who's Who."]

fa, Edwin **Lankester** (1814-1874), M.D., F.R.S., Professor of Natural History, New Coll., London, 1850; Medical Officer of Health for parish of St. James's, Westminster, and Coroner for Central

Middlesex; joint editor of "Q.J.M.S.," etc.—["Dict. N. Biog."]

me, Phebe **Lankester** (1825-1900), authoress of "Wild Flowers Worth Notice"; the popular portion of Sowerby's "British Botany," and many other publications; also wrote weekly in a newspaper for many years under the signature of "Penelope."

me bro, Samuel **Pope,** Q.C., successful leader of the Parliamentary Bar.

bro, E. Forbes **Lankester,** first class in "Greats," Oxford, 1877; successful barrister.—["Oxf. Reg."]

bro, S. Rushton **Lankester,** H.M. Consul, Batavia.

si, Fay **Lankester,** Secretary of National Health Society.

si, Marion **Vatcher,** wife of Rev. Sydney Vatcher, Vicar of St. Philip's, Stepney. Both well known in connection with East London organization of help to the poor.

si, Nina **Lankester,** Superintendent of Female Clerks in Money Order Department of Post Office.

Joseph **Lister** (*b.* 1827), created Baronet, 1883; Baron **Lister,** 1897; F.R.S., P.C., O.M., and numerous other distinctions; President Royal Soc., 1896-1900; Professor of Surgery, Glasgow, 1860-1869, Edinburgh University, 1869-1877, King's Coll., London, 1877-1893; famous for discovery of antiseptic treatment in surgery.—["Ency. Brit.," and "Who's Who."]

fa, Joseph Jackson **Lister** (1786-1869), F.R.S., optical investigator, especially in connection with the principles of the achromatic microscope, also author of contributions to Zoology, Phil. Trans.—["Dict. N. Biog."]

bro, Arthur **Lister** (*b.* 1830), F.R.S.; botanist; author of monograph on the Mycetozoa.—["Who's Who."]

bro son, Joseph Jackson **Lister,** F.R.S., biologist; Fellow of St. John's Coll., Cambridge.—["Who's Who."]

bro son, Arthur Hugh **Lister,** Ass. Phys., Aberdeen Infirmary; obtained "three stars" at University examination, Aberdeen.

bro da, Gulielma **Lister,** contributed papers to "Linnæan Journal," and, in connection with her brother, to "Journal of Botany."

Sir Oliver **Lodge** (*b.* 1851), F.R.S., D.Sc., London, Oxon, and Vict., LL.D., St. Andrews and Glasgow; Principal of the University of Birmingham since 1900; Professor of Physics, University Coll., Liverpool, 1881-1900; author of various works on physics, and of articles in the "Hibbert Journal."—["Who's Who."]

fa bro, Robert J. **Lodge,** for many years Secretary of the Marine Insurance Company, and reckoned a man of considerable ability in the city.

bro, Richard **Lodge** (*b.* 1855), Professor of History, Edinburgh, since 1899; First Professor of

History, Glasgow University; author of "Student's Modern Europe," "Richelieu" (in Foreign Statesmen Series), and "The Close of the Middle Ages." —["Who's Who."]

bro, Alfred **Lodge,** Professor of Pure Mathematics at Cooper's Hill.

si, Eleanor Constance **Lodge,** Sub-head and Lecturer on History in Lady Margaret Hall, Oxford.

fa bro son, George E. **Lodge,** well-known animal painter and engraver.

Right Hon. Sir John **Lubbock** (*b.* 1834), created Baron **Avebury,** 1900, P.C., D.C.L., LL.D., F.R.S., banker, head of Robarts, Lubbock and Co., well known for the part he has taken in public affairs; has been a member of many Royal Commissions; For. Sec. R.A., German Order of Merit, Commander Legion of Honour. Biologist, President at various times of many learned societies; author of over 100 memoirs in the Transactions of the Royal Soc., and of numerous literary, scientific, and popular scientific works.—["Who's Who," and "Ency. Brit."]

fa fa, Sir John **Lubbock,** a leading banker and governor of the Royal Exchange Assurance Corporation.

fa, Sir John William **Lubbock** (1803-1865), F.R.S., astronomer and mathematician; Treasurer and Vice-President of the Royal Soc.; First Vice-

Chancellor of the London University; Deputy Governor of Royal Exchange Ass. Corp.—["Dict. N. Biog."]

bro, Sir Neville **Lubbock,** K.C.M.G., Chairman West India Committee; Governor of the Royal Exchange Ass. Corp.; Chairman of New Colonial Company, etc.—["Who's Who."]

bro, Edgar **Lubbock,** LL.B., director of the Bank of England; law scholar of University of London; passed first, and obtained Clifford's Inn prize in Law Soc. Exam.—["Who's Who."]

Sir Francis Leopold **McClintock** (*b.* 1819), K.C.B., D.C.L., LL.D., F.R.S.; Admiral retired; Elder Brother of Trinity House; served in four Arctic voyages; discovered fate of Franklin's expedition, 1859; author of "The Fate of Sir John Franklin" and "The Voyage of the *Fox*."—["Who's Who."]

fa me, Patience **McClintock,** *née* **Foster,** came of a family which showed in most of its branches a high level of ability, and had several distinguished members. Thus, reckoning relationships from her, we find her:

fa, John William **Foster,** M.P.

fa bro, Anthony **Foster** (*d.* 1778), M.P., Chief Baron of Exchequer, Ireland.

fa bro son, John **Foster,** Baron **Oriel** (1740-1828); Speaker of Irish House of Commons

up to the time of the Union.—["Dict. N. Biog."]

fa bro son, William **Foster** (*d.* 1797), D.D., Bishop successively of Cork, Kilmore, and Clogher.

fa bro son son, John Leslie **Foster** (*d.* 1842), F.R.S., Irish Judge; M.P. for Dublin University, etc.—["Dict. N. Biog."]

fa bro son son, Sir Augustus John **Foster** (1780-1848), Bart., P.C., M.P.; Minister to United States, Denmark, and Turin.—["Dict. N. Biog."]

fa bro son son son, Vere Henry Lewis **Foster** (1819-1900), philanthropist and educationalist.—["Dict. N. Biog."]

bro, Alfred Henry **McClintock** (*d.* 1881), M.D., LL.D., President Royal College of Physicians, Ireland.

fa bro son, John **McClintock,** M.P. for Co. Louth for many years; created Baron **Rathondell** for long political services.

me fa, Ven. George L. **Fleury,** Archdeacon of Waterford.

me bro, Rev. Charles Marley **Fleury,** a celebrated preacher in Dublin.

son, Henry Foster **McClintock,** Assistant Private Secretary to Lord Stanley, Postmaster-General; served with Army Post-Office Corps in South Africa, and was mentioned in despatches.

son, John William Leopold **McClintock**, Com-

mander Royal Navy; passed second into the "Britannia."

son, Robert Singleton **McClintock**, Brevet-Major R.E.; scholar at Charterhouse; served on Sir G. Willcocks' staff in the relief of Coomassie, 1900, and was mentioned in despatches.

Sir Clements R. **Markham** (*b.* 1830), K.C.B., F.R.S., President for many years of the Royal Geograph. Soc.; served in Arctic Expedition, 1850-1851; travelled in Peru, 1852-1854, bringing thence cinchona-bearing trees for cultivation in India; geographer to the Abyssinian Expedition; author and editor of numerous geographical works.—["Ency. Brit.," xxx. 544; "Who's Who."]

fa fa, William **Markham** (1760-1815), scholar; secretary to Warren Hastings in India.

fa bro son, Lieutenant-General Sir Edwin **Markham** (*b.* 1833), K.C.B., R.E., constant active service.—["Who's Who."]

fa bro son, Admiral Sir Albert **Markham** (*b.* 1841), K.C.B., Commander of the "Alert" in Arctic Expedition, 1875-1876; various high naval appointments, besides unprofessional work when unemployed on naval duties.—["Who's Who."]

me bro son, Right Hon. Sir Frederick **Milner**, Bart. (*b.* 1849), P.C., politician.—["Who's Who."]

me si son, Right Hon. Francis **Foljambe** (*b.* 1830), P.C., politician.—["Who's Who."]

me si son, Right Hon. Sir Edwin **Egerton** (*b.* 1841), P.C., G.C.M.G., Ambassador at Madrid, then at Rome.—["Who's Who."]

fa fa fa, William **Markham** (1719-1807), P.C., Archbishop of York; one of the best scholars of the day; Headmaster of Westminster School, 1753-1765; Dean of Christ Church; Preceptor to the Royal Princes, 1771; Archbishop and Lord High Almoner, 1777.—["Dict. N. Biog.," xxxvi. 172.]

fa fa bro, Admiral John **Markham** (1761-1827); many services at sea; twice on Admiralty Board; M.P. for Portsmouth during seventeen years; proposed and carried appointment of Commission on dockyard abuses, 1806.—["Dict. N. Biog.," xxxvi. 171.]

fa fa bro, George **Markham** (1763-1823), Dean of York; scholar and numismatist.

Mervyn Herbert Nevil Story **Maskelyne** (*b.* 1823), F.R.S., Hon. D.Sc., Oxon. Distinguished mineralogist; formerly Keeper of Minerals in British Museum; Professor of Mineralogy at Oxford, 1856-1895; M.P. for Cricklade, 1880-1885; for North Wilts, 1885-1892.—["Who's Who."]

me fa, Nevil **Maskelyne** (1732-1811), D.D., F.R.S., Astronomer Royal for forty-seven years; was the first man to weigh the earth; the originator of the Nautical Almanac.—["Dict. N. Biog."]

fa, Anthony Mervyn Reeve **Story**, F.R.S., gained

a double first-class in Lit. Hum. and Mathematics, when nineteen years of age, at Oxford, in 1810.—["Oxf. Reg."]

si son, John Story **Masterman,** gained a first-class in Lit. Hum., 1872; Fellow of Brasenose, Oxford.—["Oxf. Reg."]

si son, Herbert Warington **Smyth,** Secretary, Mining Dept., Transvaal; Secretary, Siamese Legation, 1898-1901; Order White Elephant of Siam, 1897; author of "Five Years in Siam," etc.—["Who's Who."]

si son, Major Nevill Maskelyne **Smyth,** obtained V.C. at Battle of Khartoum.—["Who's Who."]

wife, *née* Dillwyn **Llewelyn.**

wi fa fa, Lewis Weston **Dillwyn** (1778-1855), F.R.S., well known as a botanist; established Cambrian Pottery Works at Swansea; M.P. for Glamorganshire, 1832-1841.—["Dict. N. Biog."]

wi fa, John Dillwyn **Llewelyn,** F.R.S., early experimenter in photography.

wi fa si son, Traherne **Moggridge,** author of "Flora of Mentone," "Harvesting Ants," and "Trapdoor Spiders."

wi me bro, Christopher Rice Mansel **Talbot,** first-class mathematics, Oxford, 1823; Lord-Lieutenant of Glamorganshire, M.P., "Father of the House of Commons."—["Oxf. Reg."]

wi me me si son, William Henry Fox **Talbot** (1800-1877), F.R.S., independent inventor of

photography, his (wet) processes, talbotype, etc., being those which have survived in various forms. He also discovered the direct method of printing by the autotype process. A distinguished mathematician, he furthermore was one of the earliest interpreters of cuneiform writing; M.P. for Chippenham, 1833-1834.—["Dict. N. Biog."]

Raphael **Meldola** (*b.* 1849), F.R.S., Professor of Chemistry in Finsbury Technical Coll.; discoverer of many new products and processes in the manufacture of coal-tar dyes; also well known as a naturalist; has been President of the Entomological Soc. and of the Essex Field Club.—["Who's Who."]

fa fa, Raphael **Meldola** (1754-1828), invited to London, in 1805, on account of his fame as a theologian, to preside as High Rabbi over the London congregation of British Jews belonging to the Spanish and Portuguese community; author of many theological works.—["Dict. N. Biog."]

fa bro, David **Meldola,** succeeded his father as chief of the community, though not given the same high rank; author of theological works.

me bro, Joseph **Abraham,** founded a large and successful firm in Bristol; took a prominent part in municipal affairs, and became the first Jewish mayor of Bristol.

fa si son, Abram **de Sola,** Professor of Oriental

literature in McGill Coll., Montreal; the only Jewish divine ever invited to open Congress by the U.S. Government; erudite scholar, and author of theological works.

me bro son, Harry **Abraham,** a man of business, and councillor and Mayor of Southampton.

Louis C. **Miall** (*b.* 1842), F.R.S., Professor of Biology, University, Leeds; Fullerian Professor of Physiology, Royal Inst.; President Zool. Sec. British Assoc., 1897; author of memoirs and books on natural history.—["Who's Who."]

fa, James Goodeve **Miall** (Rev.), Chairman of Congregational Union.

fa bro, Edward **Miall** (1809-1881), Independent minister at Leicester, 1834; established and edited the "Nonconformist," 1841; M.P., Rochdale, 1852-1857, Bradford, 1869-1874; strove for Disestablishment of Church.—["Dict. N. Biog."]

me bro, Charles **Mackenzie,** a well-known Haymarket actor (stage-name, Henry **Compton**).

me bro son, Sir Morell **Mackenzie** (1837-1892), celebrated physician; specialist on diseases of the throat.—["Dict. N. Biog."]

me bro son, Sir Stephen **Mackenzie** (*b.* 1844), senior physician, London Hospital; consulting Physician, Poplar Hospital, etc.—["Who's Who."]

son, Stephen **Miall,** first in solicitors' examination, Clement's Inn, and "Daniel Reardon" prizeman, 1896; first-class honours, LL.B. and LL.D., London.

Henry Alexander **Miers** (*b.* 1858), D.Sc., F.R.S., Waynflete Professor of Mineralogy, Oxford, since 1895; author of many scientific papers, "Mineralogy," etc.—["Who's Who."]

fa me fa, Francis **Place** (1771-1854), Radical reformer and writer; started life as leather-breeches maker; succeeded in getting the laws against combinations of workmen repealed.—["Dict. N. Biog."]

fa fa, John **Miers** (1789-1879), F.R.S., engineer and botanist; accompanied Lord Cochrane to Chile, 1818; made collections of birds, insects, and plants; author of many scientific papers.—["Dict. N. Biog."]

fa, Francis Charles **Miers,** engineer and successful man of business.

bro, Edward John **Miers,** zoologist; author of a volume on Brachyura in "Challenger Reports," etc.

Alfred **Newton** (*b.* 1829), F.R.S., Professor of Zoology and Comparative Anatomy, Cambridge; has been very active in promoting the protection of wild birds; has been Vice-President of the Royal and Zoological Societies; gold medal of the Royal and of the Linnæan Societies; author of many works dealing principally with birds.—["Who's Who."]

me fa, Richard Slater **Milnes,** M.P. for York; took a prominent part in county business.

fa, William **Newton,** M.P. for Ipswich.

me bro, Robert Pemberton **Milnes,** M.P. for Pontefract; prominent in county business.

bro, General William Samuel **Newton.**

bro, Robert Milnes **Newton,** Recorder of Cambridge; metropolitan police magistrate.

bro, Lieutenant-General Horace Parker **Newton,** first of his year in R.M.A., Woolwich.

bro, Sir Edward **Newton,** K.C.M.G., Colonial Secretary of Mauritius; Lieutenant-Governor of Jamaica; author of several zoological papers in scientific journals.

bro son, Arthur William **Newton,** H.M. Inspector of Schools.

bro son, Francis James **Newton** (*b.* 1857), C.M.G.; Treasurer of Southern Rhodesia, 1902; some time Administrator of British Bechuanaland, and Colonial Secretary British Honduras and Barbadoes.—["Who's Who."]

me bro son, Richard Monckton **Milnes** (1809-1885), first Baron **Houghton;** M.P. for Pontefract, 1837; distinguished in literary society; author of poems and critical essays. Did much to secure Copyright Act; assisted in the preparation of the "Tribune," 1836; established the "Philobiblon Soc.," 1853.—["Dict. N. Biog.," and "Life" by Wemyss Reid.]

me bro son son, Robert Offley Ashburton **Crewe-Milnes,** first Earl of **Crewe,** son of Lord Houghton; Lord-Lieutenant of Ireland, 1892-1895.—["Who's Who."]

Northbrook, Earl.—See BARING.

Robert Harris Inglis **Palgrave** (*b.* 1827), F.R.S., economist and statistician; editor of the "Economist"; also of "Dictionary of Political Economy."—["Who's Who."]

me fa, Dawson **Turner** (1775 - 1858), F.R.S., botanist and antiquary.—["Dict. N. Biog."]

me fa bro, Joseph **Turner,** Senior Wrangler, 1768.

fa, Sir Francis **Palgrave** (1788-1861) (son of Meyer **Cohen,** adopted the name Palgrave in 1823), historian; deputy-keeper, and assisted in the publication, of H.M. Records. Author of the "Rise and Progress of the English Commonwealth," 1832; "History of England and Normandy," 1851; and other works; greatly promoted study of mediæval history; knighted, 1832.—["Dict. N. Biog."]

me, Elizabeth, *née* Dawson **Turner,** assisted her husband in his literary work.—[Unpublished information.]

me bro, Dawson William **Turner** (1815-1885), D.C.L., philanthropist and educational writer; Demy of Magdalen Coll., Oxford.

bro, Francis Turner **Palgrave** (1824-1897), poet and art critic; first-class Lit. Hum.; Professor of Poetry at Oxford; editor of "Golden Treasury"; author of many critical essays and other publications.—["Dict. N. Biog.," Suppl. iii.]

bro, W. Gifford **Palgrave** (1826-1888), traveller and diplomatist; at twenty years of age gained first-class Lit. Hum. and second-class Math.; became Roman Catholic, and travelled as Jesuit missionary in Syria and Arabia, disguised for the purpose. Author of "A Year's Journey through Eastern and Central Arabia." Severed his connection with the Jesuits in 1865, and thenceforward served as English diplomatist in various distant countries.—["Dict. N. Biog."]

bro, Sir Reginald F. D. **Palgrave** (1829-1904), K.C.B., Clerk of the House of Commons. Author of "Oliver Cromwell the Protector," etc.—["Who's Who."]

me si son, Sir Joseph Dalton **Hooker**, F.R.S. (*q.v.*).

Lawrence **Parsons** (*b.* 1840), fourth Earl of **Rosse**, D.C.L., LL.D., Camb. and Dublin, F.R.S.; Chancellor of University of Dublin; author of "Memoirs of Heat of Moon and Stars" (based on experiments with the famous reflecting telescope made by his father), and on other subjects.—["Who's Who."]

fa, William **Parsons** (1800-1867), third Earl of **Rosse**, Pres. R.S.; constructor of the great reflecting telescope at Parsonstown, and first discoverer by its means of nebulæ and other celestial phenomena. —["Dict. N. Biog."]

bro, Charles Algernon **Parsons** (*b.* 1854), D.Sc.,

F.R.S.; notable in the development of turbine navigation; proprietor and director of electrical and engineering works.

William Matthew Flinders **Petrie** (*b.* 1853), D.C.L., Lit.D., LL.D., Ph.D., F.R.S.; Edwards Professor of Egyptology, University Coll., London, since 1892. Principal discoveries: Greek settlements at Naucratis and Daphnæ; prehistoric Egyptian at Koptos and Naqada; inscription of Israelite War at Thebes; Kings of the earliest dynasties at Abydos; has published much on these subjects. —["Who's Who," and "Ency. Brit."]

fa fa fa, Martin **Petrie**, Commissary-General; good administrator.

fa fa, William **Petrie**, Commissary-General.

me fa, Matthew **Flinders** (1774-1813), naval captain; assisted George Bass to survey the coast of New South Wales and Van Dieman's Land, 1795-1800; in command of the "Investigator," and afterwards of the "Porpoise" and "Cumberland"; made the first survey of a large part of the Australian coast, 1801-1803.—["Dict. N. Biog."]

fa, William **Petrie**, civil engineer; first exhibitor of electric light on a large scale, 1848; inventor of various apparatus for that and chemical industries.

me, Ann **Flinders Petrie**, writer of some books and articles popularizing mineralogy, about 1840; learned both Hebrew and Greek without a teacher.

Percival Spencer Umfreville **Pickering** (*b.* 1858), F.R.S., director of the Woburn Experimental Fruit Farm; investigator in chemical physics; editor of "Memoirs of Anna Maria Pickering," and author of 150 papers on chemical and physical subjects.—["Who's Who."]

me fa, John Spencer **Stanhope,** F.R.S., and Membre de l'Institut at twenty-eight years of age; a man of considerable classical attainments, and author of "Platæa and Olympia," and other topographical studies in Greece.

me me, Elizabeth, *née* **Coke,** a woman of considerable artistic ability.

me me fa, Thomas William **Coke** (1752-1842), of Holkham, was created Earl of **Leicester;** M.P. for Norfolk, 1776-1806, and 1807-1832; favoured Protection and Parliamentary Reform; introduced modern methods into agriculture; a famous improver of stock.—["Dict. N. Biog."]

fa, Percival Andrée **Pickering,** Q.C., Fellow of St. John's Coll., Cambridge; Judge of Passage Court; Attorney-General for County Palatine; author of classical essays and works on Parliamentary law.

me, Anna Maria Wilhelmina, *née* **Spencer Stanhope,** of decided literary and classical ability; author of "Memoirs" recently published.

fa bro, Edward Hayes **Pickering,** Captain of Montem, Eton; Fellow of St. John's Coll., Cambridge; died young.

me bro, Sir Walter Thomas William **Spencer Stanhope** (*b.* 1827), K.C.B., first-class in Mathematics, Oxford, 1848; M.P. West Riding of Yorkshire, S. division, 1872-1880, and 1882-1890.—["Who's Who."]

me bro, John Roddam **Spencer Stanhope**, artist.

si, Mary Evelyn **de Morgan** artist.

si, Anna Maria Diana Wilhelmina **Stirling**, author of novels and tales under the name of Percival **Pickering**.

Sir William **Ramsay** (*b.* 1852), K.C.B., LL.D., D.Sc., Ph.D., F.R.S., F.C.S.; Professor of Chemistry, University Coll., London, since 1887; sometime Professor of Chemistry and Principal of University Coll., Bristol; has published numerous important scientific papers.—["Who's Who."]

fa fa, William **Ramsay**, manufacturing chemist; first made acetic acid from wood; discovered bichrome; President of the first Chemical Society, Glasgow, 1796, which was merged in the Glasgow Philosophical Society, 1802.

fa bro, Sir Andrew Crombie **Ramsay** (1814-1891), F.R.S., Professor of Geology, University Coll., London, 1847; Director-General of the Geological Survey, 1871.—["Dict. N. Biog."]

mo bro, Robert **Robertson**, editor of a daily London paper (about 1835).

Rayleigh, Lord.—See STRUTT.

Clement **Reid,** F.R.S., District Geologist on Survey of England and Wales; author of many works on Geology.—["Who's Who."]

si, Margery Anna **Reid,** B.Sc., London; science mistress at Ladies' Coll., Cheltenham; very successful as a teacher.

me bro son, Harold Leslie **Barnard,** surgeon, and inventor of apparatus for testing blood-pressure.

me me bro, Michael **Faraday** (1791-1867), F.R.S., Fullerian Professor Royal Institution; famous chemist and electrician; started his scientific career as assistant to Sir Humphry Davy.—["Dict. N. Biog."]

me fa bro, George **Barnard,** landscape artist and author of many books on drawing and painting.

me fa bro son, Frederick **Barnard** (1846-1896), artist and caricaturist; illustrator of Dickens, contributor to "Punch," etc.—["Dict. N. Biog."]

Sir Henry Enfield **Roscoe,** Ph.D., LL.D., D.C.L., F.R.S., Professor of Chemistry Owens College, Manchester, 1857-1887; President Society of Chemical Industry, 1881; of Chemical Society, 1882; knighted, 1884; M.P. for S. division of Manchester, 1885-1895; President of Brit. Assoc., 1887; Vice-Chancellor of the University of London, 1896-1902; author of many memoirs and works on chemistry.—["Who's Who."]

fa fa, William **Roscoe** (1753-1831), historian, poet, and philanthropist; author of "Lives of Lorenzo de' Medici," of "Leo X.," and of several volumes of verse; M.P. for Liverpool, 1806-1807; promoter and first President of its Royal Institution.—["Dict. N. Biog."]

fa, Henry **Roscoe** (1800-1836), biographer, including Life of his father.—["Dict. N. Biog."]

fa bro, Thomas **Roscoe** (1791-1871), miscellaneous writer and translator.—["Dict. N. Biog."]

fa bro, William Stanley **Roscoe,** poet.—["Dict. N. Biog."]

fa bro, Robert **Roscoe,** poet, wrote "King Alfred."

me, Maria, *née* **Fletcher,** artist and authoress, wrote "Life of Vittoria Colonna."

me si, Harriet **Fletcher,** authoress of "Tales for Children."

fa bro son, William Caldwell **Roscoe** (1822-1859), poet and essayist.—["Dict. N. Biog."]

fa si son, William Stanley **Jevons** (1835-1882), F.R.S., economist and logician; Professor of Logic and Political Economy at Owens Coll., 1866-1879; at University Coll., London, 1876-1880; influential writer.—["Dict. N. Biog."]

me si son, Rt. Hon. Charles **Booth,** P.C., F.R.S. (*q.v.*).

me si son, Charles **Crompton.**—See Booth.

me si son, Henry **Crompton.**—See Booth.

Rosse, fourth Earl of.—See PARSONS.

Edward John **Routh** (*b.* 1831), Sc.D., Camb., Sc.D. (hon.), Dublin, LL.D. (hon.) Glasgow, F.R.S., Senior Wrangler and Smith's prize, 1854; Adams prize, 1877; has had twenty-seven Senior Wranglers and more than forty Smith's Prizemen for pupils. Author of several books on theoretical dynamics and of many mathematical papers.—["Who's Who."]

fa, Sir Randolph Isham **Routh** (1782-1858), K.C.B., 1848; Commissary-General; saw much foreign service, and was senior commissariat officer at Waterloo.—["Dict. N. Biog."]

me bro, Hon. Jean Thos. **Taschereau,** Judge of King's Bench in Canada.

me bro, His Eminence Elzear Alexandre **Taschereau** (*b.* 1820), son of the above; Cardinal-Priest of the Roman Catholic Church, and Archbishop of Quebec.

me bro son, Hon. Sir Henri Thomas **Taschereau** (*b.* 1841), Judge of the Supreme Court of Canada.

me bro son, Hon. Henri Elzear **Taschereau** (*b.* 1836), Judge of the Supreme Court of Canada; author of many works on law. (For the Taschereau family see "Canadian Men and Women of the Time.")

fa son, ½ *bro*, C. H. F. **Routh,** eminent London physician.

fa son son, Amand J. McC. **Routh,** M.D., F.R.C.P., obstetric physician to Charing Cross Hospital, consulting obstetric physician to three other hospitals; author of numerous papers and articles on Midwifery and Gynæcology.—["Who's Who."]

wife's fa, Sir George B. **Airy** (1801-1892), K.C.B., F.R.S., eminent mathematician and astronomer; Senior Wrangler, 1823; Astronomer Royal, 1835-1881.

Dukinfield Henry **Scott** (*b.* 1854), F.R.S., Hon. Keeper Jodrell Lab., Royal Gardens, Kew; Botanical Sec. of the Linnæan Soc.; President of the Royal Microscopical Soc.; author of "An Introduction to Structural Botany," "Studies in Fossil Botany," and various papers in "Phil. Trans.," etc.—["Who's Who."]

fa fa fa, Thomas **Scott** (1747-1821), Chaplain of Lock Hosp., London, afterwards Rector of Aston Sandford; produced a commentary on the Bible in weekly parts from 1788-1792; author of many religious writings.—["Dict. N. Biog."]

fa fa, Thomas **Scott** (1780-1835), Queen's Coll., Cambridge; author of many religious works.—["Dict. N. Biog."]

fa, Sir George Gilbert **Scott** (1811-1878), R.A., restoring architect to Ely, Hereford, Lichfield, Salisbury, and Ripon Cathedrals; architect of Indian, Home and Colonial Offices, the Nicolaikirche at Hamburg, St. Mary's Cathedral, Edinburgh, etc.;

President Royal Inst. Brit. Architects, 1873-1876; Professor of Architecture.—["Dict. N. Biog."]

fa bro, Ven. Melville H. **Scott,** Archdeacon of Stafford.

bro, George Gilbert **Scott,** architect of Roman Catholic Cathedral, Norwich; first in Moral Science Tripos, Cambridge; Burney Prize Essay; author of "History of English Church Architecture."—["Who's Who."]

bro son, Giles Gilbert **Scott,** architect of New Liverpool Cathedral, by competition at the age of twenty-two.

bro son, Henry George **Scott,** Director of Mines and Geology to the Siamese Government at the age of twenty-four.

fa bro son, Canon Thomas **Scott** (*b.* 1831), Whewell University prizeman; first in first-class Moral Science Trip., 1854.—["Who's Who."]

fa bro son, Ven. Edwin A. **Scott,** Archdeacon of Christchurch, New Zealand.

Robert Henry **Scott** (*b.* 1833), D.Sc., F.R.S., classical scholar Trin. Coll., Dublin, 1853; first Senior Mod. Exp. Physics, 1855; Superintendent Meteorological Office 1867-1900.—["Who's Who."]

fa fa, John Pendred **Scott,** resident at the Court of Oude.

me fa, Charles **Brodrick,** Archbishop of Cashel, Ireland.

fa, James Smyth **Scott,** gold medallist Trin. Coll., Dublin.

me bro, William John **Brodrick,** seventh Viscount **Midleton**, Dean of Wells.

bro, Charles **Brodrick Scott,** Senior Classic, Cambridge, 1848; Headmaster of Westminster School.

bro, James George **Scott,** Archdeacon of Dublin, Chancellor of St. Patrick's, Dublin.

bro, Edward Ashley **Scott,** Fellow of Trinity Coll., Cambridge.

bro son, George Digby **Scott,** first-class Classical tripos, Cambridge.

bro son, Charles William **Scott,** engineer to Irish Lights Board.

fa bro son, Edward William **Scott,** General Bengal Artillery; for many years secretary to the Military Board, Bengal.

me bro son, George C. **Brodrick** (*d.* 1903), D.C.L., Warden of Merton Coll., Oxford; brilliant college career; connected with the "Times," 1860-1873; author of "Political Studies" (1879), "Memorials of Merton College" (1885), "Memoirs and Impressions" (1900).—["Who's Who."]

me si son, Charles Brodrick **Bernard,** Bishop of Tuam, Ireland.

me bro son son, William St. John **Brodrick,** P.C., Secretary of State for War, 1900-1903; subsequently for India.—["Who's Who."]

Thomas Roscoe Rede **Stebbing** (*b.* 1835) (Rev.), F.R.S., naturalist; authority on Crustacea; prepared the report on the Amphipoda of the "Challenger" expedition; author of many works on natural history.—["Who's Who."]

fa, Henry **Stebbing** (1799-1883), D.D., F.R.S., poet, preacher, and historian; editor of the "Athenæum" almost from its commencement, 1828; published a continuation to Hume and Smollet's history, "Lives of the Italian Poets," etc.—["Dict. N. Biog."]

me bro, William **Griffin,** Vice-Admiral.

bro, William **Stebbing,** Scholar of Lincoln Coll., scholar and Fellow of Worcester Coll., Oxford, first-class Mods., 1852; first-class Lit. Hum., 1853, first-class Law and History, 1854; for nearly thirty years on the staff of the "Times" as leader writer, and second to the late Mr. Delane in the editorship. —["Who's Who."]

G. Johnstone **Stoney** (*b.* 1826), D.Sc. F.R.S.; Professor of Natural Philosophy in late Queen's University, Ireland; memoirs on the "Physical Constitution of the Sun and Stars," on the "Internal Motion of Gases," etc.—["Who's Who."]

me bro, William Bindon **Blood,** Professor of Engineering; author of professional papers.

me bro son, Sir Bindon **Blood** (*b.* 1842), K.C.B., Commander of the Forces in Punjab; distinguished

in Chitral Expedition and in Boer War.—["Who's Who."]

bro, Bindon Blood **Stoney,** LL.D., F.R.S., Engineer, especially marine; numerous engineering works and publications of great originality.—["Who's Who."]

si son, Maurice **Fitzgerald,** Professor of Engineering, Queen's Coll., Belfast.

si son, George Francis **Fitzgerald** (1891-1903), F.R.S., Professor of Nat. and Exper. Philosophy; Principal of School of Engineering, Dublin University. His scientific writings have been edited since his death by Dr. Larmor.

son, Gerald **Stoney,** one of the principal engineers in the work of the Parson's Steam Turbine Company.

Lieutenant-General Sir Richard **Strachey** (retired 1875), G.C.S.I., R.E., LL.D., F.R.S., Cambridge. Secretary of Government Central Provinces of India during Mutiny, 1857-1858; Public-Works Secretary to Government of India, 1862; Legislative Member of Governor-General's Council, 1869-1870; Member of Council of India, 1875-1889; Acting Financial Member of Governor-General's Council, 1878; Chairman of East Indian Railway from 1889; Chairman of Meteorological Council from 1883; President of Royal Geographical Soc., 1888-1890; Royal Medal of Royal Soc., 1897.

Publications: "Lectures on Geography"; "Finances and Public Works of India" (jointly with his brother, Sir John S.); various scientific memoirs.—["Ency. Brit.," and "Who's Who."]

fa fa, Sir Henry **Strachey** (1736-1810), Bart., private secretary to Lord Clive in India; Joint Under-Secretary of State for the Home Department, 1782; cr. Baronet, 1801.—["Dict. N. Biog.," Suppl. iii.]

me fa, Lieutenant-General **Kirkpatrick,** W. (1754-1812), Orientalist; military secretary to Marquess Wellesley; Resident at Poona; translated Persian works; expert in Oriental tongues and in Indian manners, customs, and laws.—["Dict. N. Biog."]

fa, Edward **Strachey** (1774-1832), Chief Examiner of correspondence to the India House, the other two being Peacock and James Mill (secretaries' work, writing despatches, etc.).

fa bro, Sir Henry **Strachey,** Bart. (1772-1858), distinguished Indian Civilian, described by James Mill ("Hist. Brit. India," vol. vi., chap. vii.) as "the most intelligent of the Company's servants."

fa bro, Richard **Strachey,** Resident at Lucknow and Gwalior.

me si, Isabella Barbara **Buller,** a well-known centre of literary and political society.

bro, Sir John **Strachey,** G.C.S.I., eminent Indian statesman; Lieutenant-Governor of the N. W. Provinces; Financial Member of Governor-General's Council; Member of Council of India. Publications:

"Finance and Public Works of India," 1882 (jointly with his brother, Sir Richard S.); "Hastings and the Rohilla War," 1892; "India," 1888, third edition, 1903.—["Ency. Brit.," and "Who's Who," 1904.]

bro, Colonel Henry **Strachey,** Tibetan explorer, gold medal of Royal Geographical Soc., 1852.

bro, Sir Edward **Strachey** (*d.* 1904), Bart., author of "Hebrew Politics in the Time of Sargon and Sennacherib."

bro, George **Strachey** (1873-1890), Chargé d'Affaires and Minister Resident at Dresden.

bro son, Sir Arthur **Strachey** (1858-1901) [son of Sir John **S.** and of Katherine, daughter of George **Batten**], Chief Justice Allahabad, æt. thirty-nine; *d.* æt. forty-three.

bro son, John St. Loe **Strachey** (*b.* 1860) [son of Sir Edward S. and Mary, sister of John Addington **Symonds,** writer and critic], editor of the "Spectator."—["Who's Who."]

me si son, Charles **Buller** (1806-1848), distinguished politician, sent as secretary with Lord Durham to Canada, 1838; Chief Poor-Law Commissioner.—["Dict. N. Biog."]

me si son, Sir Arthur **Buller,** Judge of the Supreme Court, Calcutta.

fa fa bro, John **Strachey,** LL.D. Cambridge, Archdeacon of Suffolk, Prebendary of Llandaff, preacher at the Rolls.

fa fa fa fa, John **Strachey** (1671-1743), F.R.S., geologist, said to have first suggested theory of stratification in his "Observations on Different

Strata of Earths and Minerals," 1727.—["Dict. N. Biog.," Suppl. iii.]

Wife and her kinsfolk:

wi, Jane Maria, *née* **Grant,** second wife, authoress of "Lay Texts," "Poets on Poets," "Memoirs of a Highland Lady," etc.—["Who's Who," 1904.]

wi fa fa, Sir J. P. **Grant** (1774-1848), Chief Justice of Supreme Court, Calcutta.—["Dict. N. Biog.," xxii. 398.]

wi fa, Sir J. P. **Grant,** G.C.M.G., K.C.B. (1807-1893), Indian and Colonial Governor; Member of Council; Lieutenant-Governor of Central Provinces of India; Lieutenant-Governor of Bengal; Governor of Jamaica (1866-1873).—["Dict. N. Biog.," Suppl. iii. 341.]

wife's me bro son, Sir Trevor Chichele **Plowden,** K.C.S.I., Resident at Kashmir, Hyderabad, and Baghdad.

wife's me bro son, Sir Henry Meredith **Plowden,** Senior Judge of Chief Court, Punjab (1880-1894).—["Who's Who," 1904.]

son, Giles Lytton **Strachey,** Scholarship at Trinity Coll., Cambridge; Chancellor's medal for English verse.

son, Oliver **Strachey,** Eton scholarship.

son, James Beaumont **Strachey,** scholarship at St. Paul's School.

da, Joan Pernel **Strachey,** lecturer on Old French at Royal Holloway College.

da, Marjorie Colvile **Strachey,** prize offered in 1904 by the British Ambassador in Paris to male and female undergraduates of all colleges in Great Britain, for examination in French; scholarship at Royal Holloway College, 1904.

Aubrey **Strahan** (*b.* 1852), F.R.S., district geologist on the Geological Survey of England and Wales; author of geological memoirs on Chester, Rhyl, Flint, Isle of Purbeck, Weymouth, South Wales Coalfield, etc., and contributions to scientific journals. — ["Who's Who."]

me fa, Sir George **Fisher,** General of Royal Artillery; Commandant of Woolwich Arsenal.

bro, George **Strahan,** second for Pollock Medal at Addiscombe; Dep. Surveyor-General of the Trigonometrical Survey of India, 1889; Colonel of Bengal Engineers.

bro, Charles **Strahan,** Lieutenant-General of Bengal Engineers; Surveyor-General of India, 1895.

fa bro son, Herbert **Kynaston** (*b.* 1835), D.D., Camden Medallist and Browne Medallist, 1855; bracketed Senior Classic, 1857; Fellow of St. John's Coll., Cambridge, 1858; Principal of Cheltenham Coll., 1874-1888; Professor of Greek and Classical Literature, University of Durham, 1889.—["Who's Who."]

John William **Strutt** (*b.* 1842), third Baron **Rayleigh,** D.C.L. (Hon. Oxon.), LL.D., O.M., F.R.S., Hon. Sc.D. (Cambridge and Dublin), Professor of Natural Philosophy, Royal Inst., since 1887; Senior Wrangler and Smith's Prizeman, 1865; Professor of Experimental Physics, Cambridge, 1879-1884; Secretary Roy. Soc., 1887; author of "Theory of Sound," and many scientific papers.—["Who's Who," and "Ency. Brit."]

bro, Hon. Edward Gerald **Strutt,** successful land-agent and surveyor.

me si son, Ronald Montague **Burrows** (*b.* 1867), Professor of Greek in the University Coll. of S. Wales and Monmouthshire.—["Who's Who."]

son, Hon. Robert John **Strutt** (*b.* 1875), F.R.S., Fellow of Trinity Coll., Cambridge; author of papers on radium, etc.—["Who's Who."]

me fa bro, Major-General Edward **Vicars,** R.E., distinguished himself under Lord John Hay on North Coast of Spain; brevet majority and Spanish orders for gallantry before San Sebastian in 1836; selected for special duty with the fleet in 1854, but taken ill on the way out, and retired on full pay.

wife, see BALFOUR.

William **Thomson** (*b.* 1824), Baron **Kelvin** (1892), P.C., O.M., F.R.S., and numerous other distinctions; eminent mathematical physicist; inventor of mirror galvanometer, of siphon

recorder in connection with submarine telegraphy, of a new form of mariner's compass, etc.; acted as electrical engineer for many submarine cables; President of British Assoc., 1871, of Royal Soc., 1890-1895, and four times of Royal Soc., Edinburgh; author of numerous mathematical and physical memoirs.—["Who's Who," and "Ency. Brit."]

fa, James **Thomson** (1786-1849), son of a small farmer in co. Down; commenced the study of mathematics on his own initiative; became Professor of Mathematics at Belfast, 1815, then at University of Glasgow, 1832; also a good classical scholar and astronomer; wrote the authorized mathematical text-books of the Commissioners of National Education in Ireland.—["Dict. N. Biog."]

bro, James **Thomson** (1822-1892), F.R.S., Hon. LL.D., Glasgow and Dublin, Professor of Civil Engineering, first at Queen's Coll., Belfast, 1857-1873, then at Glasgow, 1873-1889. Invented the "vortex water-wheel," 1850; numerous memoirs on physical investigations.—["Dict. N. Biog.," and "Ency. Brit."]

bro, John **Thomson**, died young, having contracted hospital fever during medical study at Glasgow. Considered as able as his brothers.

si son, James Thomson **Bottomley**, F.R.S. (*q.v.*).

si son, George **King**, actuary and mathematician; author of many original papers, and of an authoritative work on actuarial subjects.

Sir John Isaac **Thornycroft** (*b.* 1843), LL.D., F.R.S., Vice-President of Inst. of Naval Architecture, etc.; founded shipbuilding works at Chiswick, 1866; introduced improvements in naval architecture and marine engineering, which have promoted high speeds at sea.—["Who's Who."]

me fa, John **Francis** (1780-1861), sculptor, pupil of Chantrey; exhibited at the Royal Academy, 1820-1856; his works include busts of Miss Horatio Nelson, Queen Victoria, Prince Albert, and the Duke of Wellington.—["Dict. N. Biog."]

fa, Thomas **Thornycroft** (1815-1885), sculptor; executed the group of Commerce on the Albert Memorial, and other statues.—["Dict. N. Biog."]

me, Mary **Thornycroft** (1814-1895), sculptor.—["Dict. N. Biog."]

bro, William Hamo **Thornycroft** (*b.* 1850), R.A., sculptor. His works include national monument to General Gordon in Trafalgar Square and in Melbourne; John Bright in Rochdale; Lord Granville in Houses of Parliament; and very many others.—["Who's Who."]

Charles Sissmore **Tomes** (*b.* 1846), F.R.S., late lecturer on dental anatomy at Dental Hosp. of London; Crown nominee on General Medical Council, 1898, etc.; author of a "Manual of Dental Anatomy, Human and Comparative," and of many memoirs on odontology in "Phil. Trans.," etc.—["Who's Who."]

fa, Sir John **Tomes** (1815-1895), F.R.S., dental surgeon; invented dental forceps; memoirs on histology of bone and teeth; delivered lectures at Middlesex Hosp., which marked new era in dentistry; induced Royal Coll. of Surgeons to grant license in dental surgery; one of the chief founders of the Odontological Soc., 1856, and of the Dental Hosp., 1858; secured passing of Dentists Act, 1878; wrote well-known treatise on "Dental Surgery," and other works.—["Dict. N. Biog."]

fa bro, Robert Fisher **Tomes** (1824-1904), authority on insectivora and chiroptera; edited Bell's "British Quadrupeds"; wrote natural history sections for his own and neighbouring county histories.

me bro, George **Sibley**, C.E.I., went out to India as a civil engineer, and without influence rose to be chief engineer of the East Indian Railways, and did much important work in bridge-building.

James William Helenus **Trail** (*b.* 1851), F.R.S., Regius Professor of Botany, University of Aberdeen, since 1877; naturalist of an exploring expedition in N. Brazil, 1873-1875; has been largely occupied in the administrative work of the University and of other educational bodies in N. Scotland; has published numerous botanical and zoological papers in scientific journals.—["Who's Who."]

fa, Samuel **Trail**, LL.D., D.D. (both hon.), obtained Hutton Scholarship in Aberdeen as the

most distinguished graduate of his year, 1825; Professor of Systematic Theology, University of Aberdeen, 1867; Moderator of Church of Scotland, 1874.

me bro, Hercules **Scott,** LL.D., Professor of Moral Philosophy in the King's Coll. and University, Old Aberdeen, 1820-1860; said to have taken a large part in the administration of the University.

bro, John Arbuthnot **Trail,** LL.D., Writer to the Signet in Edinburgh; prominent in administration connected with the University of Edinburgh, the Church of Scotland, and other public bodies.

me si son, David **Brown,** General; formerly Commissioner of Lower Burmah.

John **Venn** (*b.* 1834), D.Sc., F.R.S., Fellow of Caius Coll., Cambridge; President, 1903; for many years lecturer on Moral Philosophy at Cambridge; author of many works on logic, and of "A Biographical History of Gonville and Caius Coll."—["Who's Who."]

fa fa, John **Venn** (1759-1813), scientific and mechanical interests; one of the first to adopt vaccination, applying it to his own children, and recommending it in the parish of Clapham, where he was rector in 1800; the principal founder of the Church Missionary Soc., 1798, the rules of which he sketched out much as they are still retained.—["Dict. N. Biog."]

fa, Henry **Venn** (1796-1873), Wrangler and Fellow of Queens' Coll., Cambridge; for many years secretary and practically manager of the Church Missionary Soc., the income of which increased under his guidance to over £100,000 per annum; vicar of Drypool, 1827, and of St. John's, Holloway, London, 1834-1846.—["Dict. N. Biog."]

fa bro, John **Venn** (1802-1890), Wrangler and Fellow of Queens' Coll., Cambridge; much practical skill and success in philanthropic schemes in his parish of St. Peter's at Hereford; he started a steam corn-mill, which was so successful that it led to many other developments in the way of aiding the industrious—*e.g.*, a loan department, which, by 1848, had advanced some £18,000 to various poor and struggling persons, and an extensive experimental garden for teaching garden allotment and small farm work, etc.

fa si son, Sir James Fitzjames **Stephen** (1829-1894), distinguished judge; in earlier life journalist, essayist, and reviewer; then Legal Member of the Council of the Governor-General of India; author of legal works.—["Dict. N. Biog."]

fa si son, Sir Leslie **Stephen** (1832 - 1904), K.C.B., Litt.D., at one time famous as a mountaineer; eminent literary editor and critic; President of the Ethical Soc.; editor of the earlier volumes of the "Dictionary of National Biography"; author of many works, including a biography of his brother.

fa fa fa, Henry **Venn** (1725-1797), an evangelical

divine, a man of remarkable energy and force of character; Fellow of Queens' Coll., Cambridge, 1749-1757; curate of Clapham, 1754; vicar of Huddersfield, 1759; rector of Yelling, 1771-1797; author of the "Complete Duty of Man."—["Dict. N. Biog."]

fa fa fa fa, Richard **Venn** (1691-1740), a learned divine; rector of St. Antholin's, London, 1725-1739. He acquired some prominence by publicly objecting to the appointment of Dr. Rundle, a latitudinarian, to the bishopric of Gloucester, on the ground of unorthodox views.—["Dict. N. Biog."]

fa si da, Emelia **Batten,** afterwards Mrs. Russell Gurney; distinguished by her artistic taste and accomplishments; author of "Dante's Pilgrims' Progress."—["Letters," with a brief biography, by Ellen Gurney, 1902.]

me fa bro, Daniel **Sykes** (1766-1832), F.R.S., Fellow of Trinity Coll., Cambridge; Recorder and M.P. for Hull; prominent as an early supporter of the Reform Movement.

me fa fa, Joseph **Sykes** (1723-1805), large and successful merchant in Hull, where he was the principal founder of the trade in Swedish iron; Mayor and Sheriff of Hull, and D.L. of the E. Riding.

For further particulars of the Venn family, see "Venn Family Annals," by Dr. John Venn (Macmillan and Co., 1904).

Robert **Warington** (*b.* 1838), F.R.S., Examiner in Agricultural Science to the Board of Education since 1894; Professor of Rural Economy, Oxford, 1894-1897; author of twenty-six papers in the "Transactions" of the Chemical Soc., "The Chemistry of the Farm" (seventeenth edition), "Lectures on the Rothamsted Experiments," and "Lectures on the Physical Properties of the Soil."—["Who's Who."]

fa, Robert **Warington** (1807-1867), F.R.S., chemist, pharmacist, and naturalist; founded in 1841, and was for ten years secretary of the Chemical Soc.; originator of the Aquarium; the author of many papers on chemical and natural history subjects.—["Dict. N. Biog."]

me fa, George **Jackson** (1792-1861), medical practitioner and inventor; Society of Arts medal for improvements in an apparatus for obtaining light; invented a dividing machine for ruling micrometers, which is still in use; introduced several improvements into the microscope; and was President of the Royal Microscopical Soc.

bro, George **Warington,** B.A., first-class Natural Science Tripos, Cambridge; died at the age of thirty-three, but had already made a considerable reputation as an author, critic, teacher, and speaker.

fa si son, John **Brown,** C.M.G.; engineer-in-chief to Cape Government railways.

General Sir Charles **Warren** (*b.* 1840), K.C.B., G.C.M.G., R.E., F.R.S. Conducted excavations at Jerusalem, and reconnaissance of Palestine for the Pal. Expl. Fund, 1867-1870; Administrator and Commander-in-Chief, Griqualand West; commanded troops Northern Border Expedition, 1879; Bechuanaland Expedition, 1884-1885; Suakim, 1886; Commissioner Metropolitan Police, 1886-1888; commanded troops Straits Settlements, 1889-1894; Lieutenant-General in command of 5th Div. South African Field Force, 1899-1900. Author of works concerning the archæology of Jerusalem; also of "On Veldt in the Seventies," and of "The Ancient Cubit and Our Weights and Measures."—["Who's Who."]

fa fa, John **Warren** (1767-1838), Dean of Bangor, N.W.

fa fa bro, Frederick **Warren** (1775-1848), Vice-Admiral; defeated Danish gunboat flotilla in the Belt, 1809; Commander-in-Chief at the Cape, 1831-1834; Admiral-Superintendent at Plymouth, 1837-1841.—["Dict. N. Biog."]

fa fa bro, Pelham **Warren** (1778-1835), M.D., F.R.S., Physician at St. George's Hosp.; Harveian orator, 1826; Physician to the King.—["Dict. N. Biog."]

fa, Sir Charles **Warren** (1798-1866), K.C.B., Major-General; served in India, 1840-1848; in

China, 1841-1844; in the Crimea, 1854-1856.—["Dict. N. Biog."]

fa bro, John **Warren** (1796-1852), F.R.S., mathematician; Fellow and Tutor of Jesus Coll., Cambridge; Chancellor of Bangor.—["Dict. N. Biog."]

son, Richard **Warren** (*b.* 1876), first-class honours, Natural Science, Oxford; scholarship in Anatomy and Physiology, London Hosp.; Radcliffe Travelling Fellow, Oxford; house physician, house surgeon, and senior resident accoucheur, London Hosp.

fa fa fa, Richard **Warren** (1731-1797), M.D., F.R.S., Fellow of Jesus Coll., Cambridge; Physician to George III., and to George, Prince of Wales.—["Dict. N. Biog."]

Bertram Coghill Alan **Windle** (*b.* 1858), F.R.S., President of Queen's Coll., Cork; M.D., D.Sc., Dublin; late Dean of the Medical Faculty and Professor of Anatomy and Anthropology, University of Birmingham; author of scientific papers, books on anatomy, anthropology, and literature, "Tyson's Pygmies of the Ancients," "Life in Early Britain," etc.—["Who's Who."]

me bro, Colonel Kendal **Coghill** (*b.* 1832), C.B., served in Burmah, 1853-1855; Adjutant of 2nd European Bengal Fusiliers during Indian Mutiny, 1857-1858; commanded 19th Hussars in Egyptian Campaign, 1882.—["Who's Who."]

me fa, Admiral Sir J. **Coghill.**

me me fa, Charles Kendal **Bushe** (1767-1843), Solicitor-General for Ireland, 1805-1822; Chief Justice of King's Bench, 1822-1841.—["Dict. N. Biog."]

me bro son, Seymour Coghill Hort **Bushe** (*b.* 1853), K.C., Senior Moderator and Berkeley gold medallist; gold medallist in oratory, Dublin; Senior Crown Prosecutor for County and City of Dublin, 1901.—["Who's Who."]

me si son, Herbert Wilson **Greene,** well-known fellow and lecturer, Magdalen Coll., Oxford; author of version of "Rubayat" of Omar Khayum, etc.

me si son, Boyle **Somerville,** Commander, R.N., author of papers on the ethnology of the Polynesian race in the "Anthropological Journal."

me si da, Edith Œnone **Somerville,** M.F.H., author of "Reminiscences of an Irish R.M.," "All on the Irish Shore," and other novels.

Horace Bolingbroke **Woodward** (*b.* 1848), F.R.S., Assistant Director Geological Survey of England and Wales; author of "Geology of England and Wales," and other works.—["Who's Who."]

fa fa, Samuel **Woodward** (1790-1838), geologist and antiquary; clerk in Gurney's Bank, Norwich, 1820-1838; studied history and archæology; formed collection of fossils and antiquities, and published works relating to Norfolk.—["Dict. N. Biog."]

fa, Samuel Pickworth **Woodward** (1821-1865),

Professor of Geology and Natural History at Royal Agricultural Coll., Cirencester, 1845; first-class assistant in department of geology and mineralogy, British Museum, 1848-1865; author of "Manual of the Mollusca" (1851-1856).—["Dict. N. Biog."]

fa bro, Bernard Bolingbroke **Woodward** (1816-1869), librarian in ordinary to Queen Victoria at Windsor.—["Dict. N. Biog."]

fa bro, Henry **Woodward** (*b.* 1832), LL.D., F.R.S., President of Palæontographical Soc. since 1896; Vice-President of Royal Microscopical Soc.; late Keeper Geological Department, British Museum (Natural History); author of many works on palæontology, zoology, etc.—["Who's Who."]

bro, Bernard Henry **Woodward,** Director of Museum at Perth, W. Australia.

bro, Herbert Willoughby **Woodward,** Archdeacon of Magila, Zanzibar.

fa bro son, Harry Page **Woodward** (*b.* 1858), Government Geologist for W. Australia, 1887-1895.

fa bro son, Martin Fountain **Woodward,** Demonstrator of Biology, Royal Coll. of Science (obituary in "Nature").

APPENDIX

32 NOTEWORTHY FATHERS OF 38 F.R.S.

(TAKEN FROM THE PRINTED LIST OF 66 FAMILIES, AND CLASSIFIED BY OCCUPATIONS)

ASTRONOMY.

SIR J. W. **Lubbock**, F.R.S., Treasurer and Vice-President of the Royal Soc.

son, Lord **Avebury**, F.R.S. (Lubbock).

Third Earl of **Rosse**, President Royal Soc. (1800-1867), constructor of the great reflecting telescope.

son, fourth Earl of **Rosse**, F.R.S.
son, C. A. **Parsons**, F.R.S.

GEOLOGY.

Professor **Ball**, Dublin (1802-1857).

son, Sir Robert **Ball**, F.R.S.
son, Valentine **Ball**, F.R.S.

Sir J. **Evans**, F.R.S., President of Geological and many other societies; Treasurer of the Royal Soc. for many years.

son, Arthur **Evans**, F.R.S.

Godwin-Austen, F.R.S. (1808-1884).

son, H. H. **Godwin-Austen**, F.R.S.

Professor **Woodward**, Cirencester (1821-1865).

son, H. B. **Woodward**, F.R.S.

PHYSICS AND MATHEMATICS.

J. J. **Lister**, F.R.S. (—), optical investigator.

son, Lord **Lister**, O.M., President Royal Soc.
son, Arthur **Lister**, F.R.S.

Lord **Rayleigh**, F.R.S., O.M.

son, Hon. R. **Strutt**, F.R.S.

Professor James **Thomson**, Belfast (1786-1849).

son, Lord **Kelvin**, O.M., President Royal Soc.
son, James **Thomson**, F.R.S.

CHEMISTRY.

R. **Warington**, F.R.S. (1807-1867), ten years Secretary of the Chemical Soc.

son, Robert **Warrington**, F.R.S.

ENGINEER.

W. **Petrie**, inventor of various apparatus for electric and chemical industries.

son, W. M. **Flinders-Petrie**, F.R.S.

BIOLOGY.

Charles **Darwin**, F.R.S. (1809-1865), the great naturalist.

son, Professor G. **Darwin**, F.R.S.
son, Francis **Darwin**, F.R.S.
son, Horace **Darwin**, F.R.S.

Edwin **Lankester**, F.R.S. (1814-1874), Professor of Natural History, New Coll., London.

son, E. Ray **Lankester**, F.R.S.

BOTANY.

Sir William **Hooker**, F.R.S. (1758-1865), Director of Kew Gardens.

son, Sir Joseph **Hooker**, F.R.S.

MEDICINE.

W. A. F. **Browne**, F.R.S.E. (—), First Commissioner in Lunacy for Scotland.

son, Sir J. Crichton **Browne**, F.R.S.

Sir J. **Tomes**, F.R.S., eminent in dental surgery.

son, C. S. **Tomes**, F.R.S.

DIVINITY.

J. **Brown** (1784-1858), Professor of Exegetics, Secession Coll., and after in the United Presbyterian Coll.

son, A. Crum **Brown**, F.R.S.

J. E. **Kempe**, late Rector of St. James, Piccadilly; Hon. Chaplain to the King.

son, A. B. **Kempe**, F.R.S.

J. G. **Miall**, Chairman of the Congregational Union.

son, L. C. **Miall**, F.R.S.

S. **Trail** (—), Professor Systematic Theology, University, Aberdeen.

son, J. W. H. **Trail**, F.R.S.

H. **Venn** (1796-1873), for many years Secretary and practically manager of the Church Missionary Soc.

son, J. **Venn**, F.R.S.

PHILOSOPHY.

C. A. **Brandis**, Professor of Philosophy at Bonn.

son, Sir D. **Brandis**, F.R.S.

LAW.

P. A. **Pickering**, Q.C., Judge Passage Court, Attorney-General, County Palatine.

son, P. S. U. **Pickering**, F.R.S.

PUBLIC SERVICES.

E. **Strachey** (1774-1832), Chief Examiner of Correspondence at India House (Secretary's work, writing despatches).

son, Sir Richard **Strachey**, F.R.S.

HISTORIANS AND BIOGRAPHERS.

J. **Grant Duff** (1789-1858), "History of the Mahrattas," written after a brief but brilliant career in India.

son, Sir Mountstuart **Grant Duff**, F.R.S.

Sir Francis **Palgrave** (1788-1861), "Rise and Progress of the English Commonwealth."

son, R. H. I. **Palgrave**, F.R.S.

Henry **Roscoe**, biographer.

son, Sir H. E. **Roscoe**, F.R.S.

Henry **Stebbing**, D.D., F.R.S. (1799-1883), "Continuation to Hume and Smollet's History," "Lives of the Italian Poets," etc.

son, T. R. R. **Stebbing**, F.R.S.

PAINTERS.

Robert **Herdman** (1829-1888), portrait and historical painter.

son, W. A. **Herdman**, F.R.S.

J. Calcott **Horsley**, R.A.

son, Sir Victor A. H. **Horsley**, F.R.S.

SCULPTOR.

T. **Thornycroft** (1815-1885).

son, Sir J. I. **Thornycroft**, F.R.S.

ARCHITECT.

Sir G. Gilbert **Scott**, R.A. (1811-1878), President Royal Institute British Architects, Professor of Architecture.

son, Dukinfield H. **Scott**, F.R.S.

SUMMARY OF THE OCCUPATIONS OF THE 32 FATHERS

11	PHYSICAL SCIENCE: Astronomy, 2; geology, 4; physics and mathematics, 3; chemistry, 1; engineer, 1.
5	BIOLOGY: Biology, 2; botany, 1; medicine, 2.
6	DIVINITY AND PHILOSOPHY: Divinity, 5; philosophy, 1.
2	LAW AND PUBLIC SERVICE: Law, 1; public service, 1.
4	HISTORIANS: Historians, 4.
4	ARTISTS: Painters, 2; sculptor, 1; architect, 1.
32	

I gather from this that about 21 of the 38 sons have followed the same pursuits as their parents, and that the remaining 17 have followed different ones; but the distinction is not always clear, so other persons may form slightly different estimates. Anyhow, it appears that the two characteristics of (1) general ability and (2) a passion for a particular pursuit are transmitted more or less independently.

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