

Sir Joseph Fayrer's scrap-book: General interest items, including cuttings re archaeological finds in Egypt, 1880, the opium trade, 1882, deer forests, 1882, Indian criminal procedure, 1883-1884, the administration of the War Office, 1891, the Duke of Sutherland, 1893, medicine, and obituaries

Publication/Creation

1880-1893

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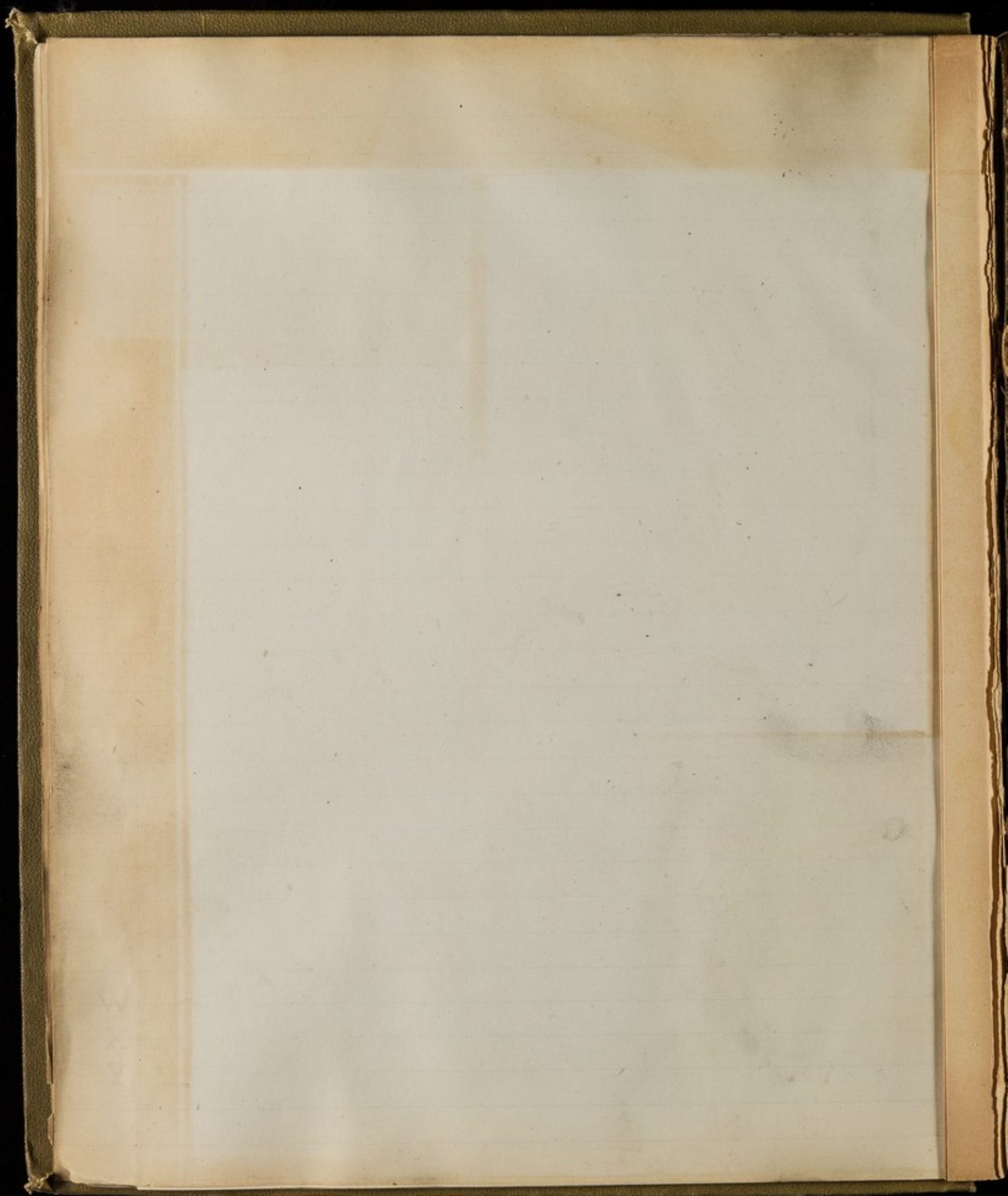
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South Africa 29 hours

30 January 1880

DEATH OF MR. SA...

THE readers of the death of the late...

curiosity naturally excited by the records and monuments of the oldest civilized race in the world have now given place to scientific research and reasoned conclusion. To this result MARIETTE Bey has contributed as much as any of his contemporaries. If BRUGSCH Bey is pre-eminently the historian, MARIETTE Bey is pre-eminently the archaeologist of the modern school. He has covered the Serapeum and the duplicate tablet of Abydos, the accomplished archaeologist who first arranged the great museum of Boulak, will always occupy a distinguished place in the list of those who have devoted a lifetime to the study of Egypt and its monuments.

Students of Egyptology throughout the world, as well as every traveler in Egypt with eyes to see and ears to hear, will regret the death of the distinguished scholar long known in Egypt as the French have a national and a rest in Egyptian antiquities. CHAMPOLLION to those of MARIETTE of France has possessed a continuous and distinguished name in a long and brilliant career. The greater part of his life, devoted to science, not for fame, was devoted to his study and to the active prosecution of the monuments and antiquities of the transformation of what was little better chaos of antiquarian conjecture into an orderly body of scientific knowledge. Egyptology is the most fascinating of pastimes as well as the most absorbing of scientific pursuits. By one who has made the Nile voyage, nearly every one who has taken Cairo, the Pyramids, the Sphinx and possibly Memphis, as an episode in a voyage to India, has felt the charm of the study and given himself over more or less enthusiastically to its pursuit. Undoubtedly one of the reasons for this strange and universal fascination is that of late years the study of Egyptology has been vivified and rendered intelligible by the labours of many scholars in many lands. The mere wonder and

the name of the creator of the museum at Boulak will always be honoured as that of one who has nobly laboured in the world. Every time I have paying him a visit at Cambusar, he was well acquainted with the ingenious turn of mind, which shut out the ladder is 378 yards; latest facility, as was ing a grisle with my principle of this pass experiments. He pass, as it is now trust, always bear

But MARIETTE's ambition soon ranged beyond the narrow limits of Coptic lore. He found his way to Sakkarah, the temple and enclosure dedicated to the worship of the sacred bull Apis, as well as the long series of excavations which will be for ever associated with his name. He discovered the Serapeum, the temple and enclosure dedicated in ancient times to the worship of the sacred bull Apis, as well as the long series of excavations which will be for ever associated with his name. He discovered the Serapeum, the temple and enclosure dedicated in ancient times to the worship of the sacred bull Apis, as well as the long series of excavations which will be for ever associated with his name.

ST. KITTS. (A CORRESPONDENT.)

STEAMER PARA, AT SEA, JAN. 17.

not often that news from the West Indies is at all important to science or to the general reader of newspapers, but during the last fortnight two events have occurred in the Leeward Islands which fairly claim some attention from the mother country. It is more than probable that the bare facts have been already announced through the medium of the cable, but some additional details from an eye-witness may be of interest. I have to record a volcanic eruption in the island of Dominica.

They had verified the assets. Thanks were voted to the directors for their conduct in the manner in which they had discharged their duties. The present meeting was held on the 17th inst. and was attended by the directors and a number of shareholders. The directors reported that the affairs of the bank had been conducted in a most satisfactory manner, and that the assets were valued at £250,000. The directors also reported that the bank had received a large amount of business, and that the profits were increasing. The shareholders expressed their satisfaction with the management of the bank, and voted to continue the directors for another year. The meeting closed at 10 o'clock.

DEATH OF MR. SAM BATHSON, OF CAMBRIDGE.

THE death of Mr. Sam Bathson, of Cambridge, is a sad loss to the community. He was a man of high standing, and his death is a great calamity to his family.

At my last interview with him we had a conversation with him as to the possibility of applying his pen to the full of his powers. He was a man of high standing, and his death is a great calamity to his family.

Students of Egyptology throughout the civilized world, as well as every traveller who has visited Egypt with eyes to see and ears to hear, will mark with regret the death of the distinguished French scholar known in Egypt as M. Balthazar.

THE TERRIBLE FLOOD AT ST. KITT'S.

ROYAL MAIL STEAMER PEARL, AT SEA, JAN. 12. It is not often that news from the West Indies is so important as to be sent to the general reader of newspapers, but during the last fortnight two articles have appeared in the Standard which have been received from the editor, which have been received from the editor, which have been received from the editor.

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THE TERRIBLE FLOOD AT ST. KITT'S. (Continued from page 10.) The news from St. Kitt's is truly alarming. The flood has done more damage than could have been expected. The water has risen to a height of several feet, and has done much damage to the property of the island. The people are suffering much, and the situation is very dangerous.

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London, 20 March 1882

Friday 30 January 1880

DEATH OF MR. ...
I am sure, be very sorry to hear of the death of ...

THESE, OF CAMBUSMORE.

I am sure, be very sorry to hear of the death of ... His brother, Colonel Watson, of ...

THE DISASTROUS FLOOD AT ST. KITTS.

(FROM A CORRESPONDENT.)

ROYAL MAIL STEAMER PARA, AT SEA, JAN. 17.

It is not often that news from the West Indies is at all important to science or to the general reader of newspapers, but during the last fortnight two events have occurred in the Leeward Islands which fairly claim some attention from the mother country. It is more than probable that the bare facts have been already announced through the medium of the cable, but some additional details from an eye-witness may be of interest. I have to record a volcanic eruption in the island of Dominica and a disastrous flood in St. Kitts. Sir Charles Lyell divides the West Indian islands into two parallel series; one for the most part composed of calcareous rock and having a very low sea-level—such as Tobago, Barbados, Mariegalante, Antigua, St. Martin; and the others of purely volcanic formation—such as St. Kitts, Montserrat, Guadeloupe, Dominica, and St. Vincent. Since 1522, when the great crater of St. Vincent vomited forth vast quantities of volcanic ash which, falling in Barbados—an island nearly 80 miles distant—destroyed a great part of the vegetation, there has been no outbreak in the volcanic series, although in Martinique, Dominica, and Guadeloupe there are craters still smouldering, and, occasionally, ejecting boiling water. On Sunday, the 4th inst., at 11 1/2 a.m., the inhabitants of Roseau, the capital of Dominica, a town situated on its western shore, were suddenly plunged into almost total darkness, for, although it had been raining heavily all the morning, the sky up to half-past 10 was fairly clear, and there was no warning of what was to come except a strong smell of sulphur pervading the atmosphere, and this, in an island abounding in sulphur springs, is so usual that few of the inhabitants had even noticed it. With the strange darkness came torrents of milk-white water, mixed with black volcanic sand and ash, flashes of bright red lightning, peal after peal of thunder, while white over and snow between the peaks could be heard a strange subterranean noise which I can only compare to the breaking of waves on a lee-shore. What I have just described lasted nearly 15 minutes, but to the inhabitants it seemed an age of horror. When daylight was restored the town was found to be covered with ashes as thick as deep, and the surrounding country presented a most abnormal appearance. The cause of this strange volcanic phenomenon did not long remain a mystery, for next morning, during a fall in the deluge of rain, there could be seen hanging over the "Boiling Lake" crater, and in clear outline against the sky, a cloud such as the younger Filby describes as having hung over Vesuvius in August, 79, of our era. The now famous "Boiling Lake" of Dominica is the centre of a large crater in the southern extremity of the island, called the Grand Soufriere Hills. This crater, of which unfortunately there is no geological record, was first seen in recent times in 1873, by the writer, when the island was under survey by Captain Stanley, R.N., the present Superintendent of the island, and the lake itself was seen and its outline visited in 1875. I say and that during the eruption nearly all the rivers in the island overflowed their banks, and that in the Point Malin river, which rises from the crater of the "Boiling Lake," all the fish, even those near to the estuary, died, and were subsequently taken out in baskets by the natives.

The flood in St. Kitts occurred on Sunday, the 11th inst., exactly one week after the eruption I have just described, and I am indebted to Mr. A. W. Mair, C.M.G., the President of the island, who came off to the mail steamer at St. Kitts, on the 12th inst., for the following particulars:—The storm began at about 10 p.m. with heavy rain, which gradually increased in intensity until midnight, when it almost ceased to be rain and seemed to assume the character of a falling waterfall. During this time there were occasionally strong blasts of wind, very vivid lightning, and once or twice a tremendous undulating movement of mother earth. There was, however, only one reverse shock to add to the horrors of the night, and it is said to have occurred about 2.30 a.m. on the 12th, when the full fury of the storm was attained. After this it began to decrease in violence, and at 4.30 all was silent and the work of destruction was over. When day broke a painful scene of desolation presented itself to the inhabitants of Basseterre, the capital of the island. Many houses were found to have been washed away, and all the streets and squares were so filled with sand and debris as to be scarcely recognizable. The fine church of St. George, which had only recently been restored, fortunately escaped, owing chiefly to its elevated site above the street; but some of the public buildings, such as the Post Office and the Treasury, suffered severely. The estates on the low-lying lands near to the coast were all partially submerged, and the damage to the roads, bridges, waterworks and property generally is estimated at over £20,000. I regret to add that, although up to the time of the steamer leaving St. Kitts the loss of life had not been accurately ascertained, the general idea was that about 200 persons had perished by drowning and other accidents. Certain it is that 40 bodies had been recovered and decently buried, and that energetic measures were being taken by President Mair, Archbishop Gibbs, Dr. Branch, and others to recover the missing bodies, and to feed the starving and homeless poor of Basseterre. As the loss occasioned by this flood painfully affects the peasantry, it is certainly to be hoped that friends in England may be induced to do something to relieve the numerous sufferers and to restore their ruined houses.

TO THE EDITOR OF THE TIMES.

Sir,—The following letter contains information just received from our agent, a barrister, at St. Kitts. It gives some particulars of the terrible disaster caused by the floods in that island, and referred to in your columns a short time since. Yours obediently,

HILL, ABBEY, AND CO.
FRENCH, W.H. HILL.
4, Woodville-street, Old Broad-street, Jan. 25.

"My dear Mr. Hill,—I cannot answer your business letter this mail, and I have only a few moments to write to you. We are in the midst of a most gigantic calamity. Last night about 12 o'clock it came on in pour; in two hours Basseterre was nearly all buried away. It is estimated that about 200 people have been killed. The appearance of things looks very grim; the air is as I write filled with the shrieks of people looking for their missing ones. I assure you it is something so frightful I can scarcely realize it. I must stop, as I have to go and see what can be done to relieve the unfortunate people. We are doing all we can, but the disaster is so great we do not know where to begin. I was nearly carried away myself, but, fortunately, only barely. I have suffered nothing. I remain, yours very sincerely,
H. H. PIRRO SCROCCO"
Mr. F. W. Hill.

10 IRELAND.

THE STATE PROSECUTOR
FROM OUR OWN CORRESPONDENT.

Students of Egyptology are not only to be found in London, but in many other parts of the world, as well as every part of Egypt with eyes to see and ears to hear. The French have a national school in Egyptian antiquities. CHANFOLLON to those of MARIETTE. France has possessed a continuous school of Egyptologists. MARIETTE's distinguished name in a long and illustrious career. The greater part of his life, science, not for fame, was devoted to study and to the active prosecution among the monuments and antiquities. He has not only witnessed, but materially transformed what was little but chaos of antiquarian conjecture into a body of scientific knowledge. Egyptology is the most fascinating of sciences as well as the most absorbing of scientific pursuits. One who has made the Nile voyage, nearly one who has taken Cairo, the Pyramids, the Sphinx and possibly Memphis, as an episode in a voyage to India, has felt the charm of the study and given himself over more or less enthusiastically to its pursuit. Undoubtedly one of the reasons for this strange and universal fascination is that of late years the study of Egyptology has been revived and rendered intelligible by the labours of many scholars in many lands. The more wonder and

Times August

THE RECENT DISCOVERIES AT THE...

The following are extracts from a letter just received from Mr. Alexander Peake, who holds the office of Inspector of Provinces in Upper Egypt under the "Com. Générale." The description he gives of a person's amination of the antiquities tabulated in M. Maspero's memoir, published in The Times of Monday, will be read with interest:—

"Cairo, Aug. 2. All those who take an interest in the past life of country have been awaiting with the utmost anxiety the arrival from Upper Egypt of the proofs of the recent grand discovery made lately, and which Herr E. Brugsch has gone to bring home to Cairo, said to consist of various Kings and Queens who have long been known by name but have scarcely been thought to exist longer in the earth which they are well known to have been preserved in their death. The remarkable and valuable things found more than substantiate the reports, but before entering into a description of the actual relics found, and lying in the Bouleau Museum, it may interest you to have a short account of how the valuable mummies, cases, &c., were found and rescued from their tombs.

It was remarked by the authorities of Upper Egypt during the earlier part of the year that an unusual quantity of antiquities, papyri, statues, pieces of mummies cases, &c., were offered for sale by the natives. A suspicion was caused by this fact and the matter referred to the Viceroy, who sent Herr E. Brugsch to Upper Egypt to investigate and endeavour to find out the reason. His investigations soon proved to his satisfaction the fact that it was not a mere chance that more than a hundred mummies were offered for sale, but that as the natives, who showed only reverence for the antiquities in exact proportion to the...

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show her to have been a granddaughter of Pinotem and the mother of Pinotem III.

28. Two mummy-cases usurped by the Princess Nes-Khonsu, daughter of the Lady Tahonnoo Thouti.

29. A double sarcophagus containing the mummies of two Queens, named Makera and Maat-em-hat; also a papyrus of Queen Makera.

30. Two mummy-cases usurped by the body of a Royal son of Rameses, named Tot-Ptah-fonkh.

31. Mummy-case of one Noi-Shounap.

32. Mummy-case and various objects belonging to the Lady Nes-Tanebasheru.

33. Mummy-case of a Lady Hati, usurped by the Lady Ta-hirt.

The presence of these last three personages in the midst of so many Kings and Queens is explained by their titles, all being attached to the worship of Amen, and connected probably with the reigning family of the line of Priest-Kings. Summing up the foregoing, M. Maspero attributes this assemblage of mummies of various periods to two causes—1, they were first concealed in consequence of the great tomb robberies which took place during the reign of Rameses IX. The tomb of Amenhotep I. was precisely one of those attacked at that period; but the robbers failed to break their way into it. Everything now indicates that his tomb must have been situated in the necropolis near Kooneh, and that it was in the midst of tombs of Kings of the ancient dynasties of the Thebaid, as well as of Kings of the 18th Dynasty.

Secondly, Judging from the actual condition of the objects, it would seem that several mummies were already missing at the time of removal, their tombs having been pillaged, like those of the King and Queen mentioned in the Abbott papyrus. This is certain as regards Queen Mashout-ti-moo-hoo, and seems probable as regards Thothmes III., Rameses I., Seti I., &c. The coffin of Rameses I. has disappeared; that of Seti has been opened and rifled, though the body is unharmed.

The transfer of these various sarcophagi has been made at different times, not far apart as to date; and evidently (the excavation having come to be regarded as a safe place of concealment) contemporary mummies continued to be deposited there for a considerable time. Doubtless, the later Ramesides and the Priest-Kings of Amen were sufficiently wealthy to make vast sepulchres for themselves; but the revolts in the north of Egypt and the establishment of the contemporary 21st Dynasty at Tanis kept the country unsafe and unsettled, and caused the family of Her-Hor to make this hiding-place their own provisional sepulchre—at all events, until such time as Egypt should again be united under their own rule. From the time of Queen Notemit, the whole Royal family of Priest-Kings would seem to have been buried in this place. The last so buried was probably the last before Shesbonk, Pinotem III. laid his family there, but has not been found there himself. Either he died in exile among his relatives at Napata, or the Arabs have stolen his mummy. The facts that emerge most conspicuously from this discovery are the links in the history and genealogy of the Priest-Kings of Amen. With only our present resources it is easy to reconstitute their pedigree:—

Table with 3 columns: Name, Title, and Relationship. Includes King Her-Hor, High Priest Pankhi, High Priest Pinotem I, King Pinotem II, High Priest Pinotem III, Princess Isi-to-Kheb, King Menkheperra, High Priest Masahert, Princess Isi-to-Kheb, wife of Menkheperra.

At the very moment when Queen Makera died, the Bubastite dynasty, originating from a Semitic family long settled in Lower Egypt, began to come to the front; and the head of that family, Shesbonk, was already not far from the throne.

It will be noticed by those Egyptologists who advocate Brugsch's theory of an early Assyrian invasion of Egypt that M. Maspero's summing up excludes any such possibility, and places this much-disputed point in an entirely new historical light.

Newark Advertiser
25 May 1861

Alter this
Aller's Indian Mail 24 October 1881

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can awaken or how he can he has an instinct which can course of the moods of tendencies and susceptibilities millions of English subjects are for him as if they still prayed among them from these islands ties. Englishmen at home are as they are taught the anatomy the instruction may be so com- edies of common atmosphere neage or usages are lapped and very distant. Members of the le alone, act and react upon one ould be an impossible calcula- district of the United Kingdom e whole which its separation lly, and more or less physically, e mass. From each it gathers ome special element. In that fifty-two Indian millions nor been fused as yet with their the reduction of India under ptible. England materially is pire from what it would else England feel its effects con- ce altogether transformed by it. countries of spirit and senti- sow than when Clive conquered dience of all these millions British Crown is a radiant ce of wealth to the kingdom s. It is not depreciating to Great Britain to wish it her and greater. An increase n years is honourable to the re may take note with pleasure o the consumers of its prints, at a multitude of facts and terest to the provinces in which ng highest. Their importance gland is hardly emphasised at nding, that since 1871 English- citizens as many within three own whole number equalled of India, with its battalions men how much those statistics ify in the relations subsisting be- n and its splendid dependency. e of human beings, does not seem y and freshness of vitality from merdous total of life. The two ndia might with yet more reason ity contains elements by which o fit. The value of its hereditary d, though their secret is ill appre- depths of Indian domestic refinement to which Euro- of indolent native nobles timent of fraternity between d not be without its use to the races might learn on their part existence and growth. India and s solidly by political ties as if only y and not continents and oceans, wreck States, they may be parted, rophe can be discerned, except by vil. Should they be severed, e for India to fall under a nt, at all events, they have to mutual advantage their leaders on se into them the sense of national to benefit by one another's virtues, another's errors. An India which itish in more than name would e past Under the British standard attain the substantial consolidation nding. The native of India may an—he cannot find it harder—to and his two hundred and fifty-two to be subjects of a couple of petty find it at least as difficult to under- those two hundred and fifty-two

AN AMUSING "ADVERTISEMENT."

An amusing political satire has been issued and has been going the round of the papers announcing an important Sale by Public Auction, as follows:—

SELLING OFF! RETIRING FROM BUSINESS!!

Freeholds, Leaseholds, Reversionary Interests, Household Effects, and Shares.

MR. W. E. GLADSTONE

will sell by Auction, at the Boer's Head Hotel, on Saturday, the 1st day of April next, at noon (*Greenwich Mean Time*), the whole of the vast Landed Estates, Goods, Chattels, and Effects of JOHN BULL, Esq., who is retiring from Business on account of advancing age and ill-health, induced by recent losses in his Transvaal Venture, comprising—

THREE KINGDOMS (United or Otherwise),
One Empire, One Dominion, Forty-eight Colonies, and One Suzerainty,

Situate as undermentioned, and containing upwards of 8,882,177 square miles (with a total rent roll of £174,775,000) of good freehold and leasehold land, Government offices, residences, and missionary stations. One large public-house, known as "The Lords and Commons," also, an extremely elegant, spacious, and well-built family mansion, known as "Buckingham Palace," with greenhouses, gardens, stables, &c., and every necessary apartment. The residence contains ample accommodation for a family of position, is situate in its own grounds, and commands good views of the Nelson Monument, St. Paul's Cathedral, and Westminster Abbey, and is within easy distance of the thriving market towns of London and Westminster. Railway communications to all parts close at hand.

The whole will be offered in one lot, and, failing to find a purchaser, will be put up in 24 lots, as under:—

Lot 1.—GREAT BRITAIN. This Freehold Estate is comprised of the adjoining properties of ENGLAND, WALES, and SCOTLAND, the first of which has been in the possession and occupation of the Vendor's family for a lengthened period, and on it are situated the above-mentioned Family Mansion and Public House.

Notes.—All Trophies, notably the Russian Cannon, which have been placed in ornamental positions on this Estate, and to which the Vendor acknowledges he has no moral right, will be returned to their respective owners, with apologies, if demanded, at the close of the sale.

Lot 2.—IRELAND. A fine Residential Property with bullet-proof Dwelling Houses and Out Buildings, (this is coloured green on the plan, and the option of purchasing it will be first offered to the peasant proprietors.)

Notes.—As the Vendor cannot disguise the fact that this is a bad lot, he will not enter into any covenant to indemnify the purchaser from loss arising from Boycotts.

NDAY NEXT, MAY 30.

LLINERY.

ES IN COSTUMES,

CWING

E, & CO.

O & H, LOMBARD-STREET.

4740

*Alter the Newark Advertiser
25 May 1861
Allure Indian Mail 24 October 1881*

more welcome than this social alliance between the cousins of the United Kingdom and of the United States. As for Queen Victoria, well has the Laureate sung :-

"Revered, beloved—O you that hold
A nobler office upon earth
Than arms or power of brain or birth
Could give the warrior kings of old."

Let us only wish, with Tennyson, that she may rule long and leave us rulers

"As noble till the latest day."

—*Indian Spectator.*

THE INDIAN CENSUS.

WE have already published in telegrams from Calcutta the rough totals of the census of India, which was made in February under the charge of the Census Commissioner, Mr. W. C. Plowden. The following memorandum by Mr. Plowden accompanying the table is dated Simla, August 27 :-

"The tables appended to this memorandum deal with the population as recently ascertained at the enumeration effected in the various British provinces and in the independent and feudatory States of India on February 17, 1881. This census may fairly claim to be the largest work of the kind, of which the record is available, undertaken in any country. Practically speaking, a population numbering 252,000,000 was enumerated on one and the same day. With the exception of the native States of Rajputana, for which, as yet, only the number of the people, without distinction of sex, has been given, the statements now printed show the number of males and females making up this large population. In the numerous cases where a previous census of any province or State has been made the figures of the former enumeration are recorded side by side with the figures ascertained at the enumeration of 1881. Columns have been added, giving in each instance the date of the census immediately preceding that of 1881, and the percentage of increase or decrease of the population observable on a comparison of the figures of the two enumerations. Taking the statistics for those provinces and States where the present census is not the first, it will be observed that in a population of 218,000,000 there has been an apparent increase of 12,750,000, or 6.2 per cent. on the population as enumerated in previous years. The present is not the time for attempting to draw any conclusions as to the growth of the population evinced by these figures. That can be more appropriately discussed when the provincial reports are submitted. In some cases, however, the increase is believed to be more apparent than real, and as an example of this I may note the Central Provinces, where a figure addition to the population in a term of nine years of one-quarter is mainly accounted for by the inaccuracy in the figures of the preceding census. It is satisfactory to note that where the recorded increase in the number of the people has been most conspicuous, as in British Burma, Assam, Berar, and Sind, there was ample room for the population to expand. The only provinces or States which show a very perceptible decrease are Mysor (17 per cent. decrease), and Madras (2.4 per cent. decrease). These figures, I fear, give mournful evidence of the check to growth in numbers which famine and consequent disease have imposed on the population of these two countries."

COMPARATIVE STATEMENT OF POPULATIONS ACCORDING TO CENSUS OF 1881 AND PREVIOUS CENSUS.

Provinces.	Population according to Census of 1881.		Population according to previous Census.		Diff. per cent.
	Both sexes.	Males.	Year.	per cent.	
Bengal	68,829,920	34,220,905	1871	+ 10	
Assam	4,815,157	2,405,453	1871	+ 19	
Madras	30,839,181	15,242,122	1871	- 2.4	
Bombay	13,978,488	7,164,824	1872	+ 3	
Do., Native States ...	6,941,631	3,575,471	1872	+ 2.3	
Sind	2,404,934	1,311,006	1872	+ 10	
N. W. Provinces ...	32,699,436	17,041,020	1872	+ 16	
Rampore	545,152	284,593	1868	+ 16	
Native Garhwal ...	200,523	102,044	1872	+ 16	
Total	252,000,000	123,211,327	1875	+ 6	
Oudh	11,407,625	5,800,960	1875	+ 16	
Punjab—					
British Territory ...	18,786,107	10,189,727	1868	+ 7	
Native States ...	3,853,282	2,106,359	1872	+ 25	
Khyber troops ...	8,153	7,970	1872	+ 17	
Total	22,647,542	12,304,056	1875	+ 7	
Central Provinces ...	11,505,149	5,801,794	1872	+ 20	
Berar	2,670,982	1,378,997	1867	+ 35	
British Burma ...	3,707,646	1,987,426	1872	+ 17	
Mysor	4,186,399	2,086,292	1871	- 17	
Coorg	178,283	100,854	1871	+ 6	
Rajputana	11,005,512	No sex details.	1871	+ 6	
Ajmere	453,075	243,904	1866	+ 6	
Central India ...	9,200,861	4,848,753	1872	+ 8	
Baroda	2,154,469	1,123,311	1872	+ 4	
Hyderabad	9,167,780	4,568,993	1875	+ 4	
Travancore	2,401,158	1,197,134	1875	+ 4	
Cochin	600,278	301,415	1875	- 14	

Grand total of seventeen provinces 218,559,918 205,771,353
Increase over last Census = 12,788,565, or about 6 per cent.

The reports and final statements for the various provinces will, it is hoped, be complete by the end of March next.

STATEMENT SHOWING THE POPULATION BY SEX OF THE SEVERAL

PROVINCES IN INDIA ACCORDING TO CENSUS OF 1881, AND TOTAL OF BOTH SEXES IN PREVIOUS CENSUS :-

Provinces.	Population according to Census of 1881.			Population according to previous Census. Both Sexes.
	Both Sexes.	Males.	Females.	
Bengal	68,829,920	34,220,905	34,601,015	62,709,405
Assam	4,815,157	2,405,453	2,349,704	4,056,054
Madras	30,839,181	15,242,122	15,597,059	31,597,872
Bombay	13,978,488	7,164,824	6,813,664	14,038,359
Do., Native States ...	6,941,631	3,575,471	3,360,160	6,786,855
Sind	2,404,934	1,311,006	1,093,928	2,192,415
N. W. Provinces ...	32,699,436	17,041,020	15,658,416	30,769,050
Rampore	545,152	284,593	260,559	—
Native Garhwal ...	200,523	102,044	98,479	—
Total	33,445,111	17,427,657	16,017,454	—
Oudh	11,407,625	5,800,960	5,546,625	11,219,675
Punjab—				
British Territory ...	18,786,107	10,189,727	8,596,380	17,611,498
Native States ...	3,853,282	2,106,359	1,746,923	—
Khyber troops ...	8,153	7,970	183	—
Total	22,647,542	12,304,056	10,343,486	—
Central Provinces ...	11,505,149	5,801,794	5,703,355	9,251,229
Berar	2,670,982	1,378,997	1,291,985	2,231,565
British Burma ...	3,707,646	1,987,426	1,720,220	2,747,148
Mysor	4,186,399	2,086,292	2,100,107	5,055,412
Coorg	178,283	100,854	77,429	168,312
Rajputana	11,005,512	No sex details.	—	—
Ajmere	453,075	243,904	209,171	426,268
Central India ...	9,200,861	4,848,753	4,352,128	—
Baroda	2,154,469	1,123,311	1,031,158	2,000,225
Hyderabad	9,167,780	4,568,993	4,448,796	—
Travancore	2,401,158	1,197,134	1,204,024	2,308,891
Cochin	600,278	301,415	298,863	601,114

Grand total ... 252,541,210 123,211,327 118,166,371
* Population details for Sikkim wanting. Excluding Naga Hills, not censused.

† Excluding population of the Lahoul, Spiti, and Hazara Districts not censused.

‡ Approximate.

§ Population details for Paegah Districts wanting.

Note.—The difference of 11,163,512 between the grand total of columns 3 and 4 and that of column 2 is accounted for by the absence of sex details for the whole of Rajputana, for the Paegah Districts of Hyderabad, and for Independent Sikkim.

[FROM THE "TIMES."]

THE details of the Indian Census intensify the amazement produced by the original outline of results. A population so vast in the total that the imagination only deludes itself by supposing that it can comprehend the number has been catalogued with as much apparent ease as the population of Jersey. The inability of the enumerators in one division of the Peninsula, with a population of eleven millions, to classify it by sexes only augment the admiration at the success with which similar and greater difficulties have been overcome in the census of the other two hundred and forty-one millions. India is a geographical name and little more in many respects. It stands for a huge collection of different races, different religions, different modes of government. Its peoples are as diverse as their climates, and the plains and mountains, fruitful valleys and savage jungles, they occupy. None are more jealous of trespasses beyond the threshold of their homes. None are more suspicious of the curiosity of superiors about their families and resources. Their religions isolate them. Their history has trained them to be timid. Yet at the will of a Power seated at the other end of the earth this enormous accumulation of contrasted humanity has in a single day been brought together to render an account of itself. That the work was believed to be practicable and that it has been accomplished creates a surprising impression of the perfection of Indian administrative centralisation. That it should have been done so well and so smoothly adds, from another point of view, to the perplexity, bordering on despair, at the gulf, wide and deep, between peoples administratively so within control, in every other relation so remote. There in Asia are two hundred and fifty-two millions, all in some respects, and most in every one, politically fellow-citizens of Londoners and Yorkshiremen. How many they are is known, what they do, and where and how they subsist. They pay taxes, they acknowledge the sovereignty of the British Queen and the supremacy of the British Parliament. For any true perception of their nature, or insight into their minds, they are as mere a denomination as the inhabitants of Annam or of New Guinea. How they became subjects of England is matter of history. The schoolboy can relate the wars and the treaties, with their dates, by which the two hundred millions, more or less, the ancestors of the present two hundred and fifty-two fell under British sway. Every British town comprises residents who have helped to subdue those millions or to govern them by British authority. All that has been effected by Englishmen in India has been to teach Englishmen what they are and of what they are capable. Only one now and then has educated himself to feel with Maharatta, Bengalee, Madrassese, or Sikh. An Englishman is endowed with an instinct which tells him the thoughts and emotions traversing other English.

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Aller's Indian Mail
Research Abstracts
25 May 1881

breasts. He comprehends how he can awaken or how he can soothe them. After a feebler sort, he has an instinct which can track, though less surely, the course of the moods of other European nations. The tendencies and susceptibilities of these two hundred and fifty-two millions of English subjects are as dark and untrod a wilderness for him as if they still prayed for the Great Mogul. Inquirers go among them from these islands and record their views and propensities. Englishmen at home are taught mechanically what they are, as they are taught the anatomy of an antediluvian animal. In time the instruction may be so complete that it will do duty for the species of common atmosphere within which brethren of the same lineage or usages are lapped and coalesce. That day seems at present very distant. Members of the same nation in reality, and not in title alone, act and react upon one another in an infinity of ways. It would be an impossible calculation to compute the influence of any district of the United Kingdom upon the rest, or the change in the whole which its separation would cause. Morally and intellectually, and more or less physically, national blood runs through the entire mass. From each it gathers as it passes, and it distributes to all some special element. In that sense neither these two hundred and fifty-two Indian millions nor any part of them can be said to have been fused as yet with their British fellow-subjects. Materially the reduction of India under British dominion is sufficiently perceptible. England materially is different by reason of its Indian Empire from what it would else have been. Particular portions of England feel its effects conspicuously. Many individual lives are altogether transformed by it. Of any interchange between the two countries of spirit and sentiment there is scarcely more evidence now than when Cæsar conquered on the field of Pharsæ. The obedience of all these millions of human creatures to the British Crown is a radiant jewel in it. Indirectly it is a source of wealth to the kingdom and a brilliant arena for careers. It is not depreciating what India gives and has given to Great Britain to wish it could or would yield something higher and greater. An increase of twelve or thirteen millions in ten years is honourable to the efficiency of British rule. Lancashire may take note with pleasure of an addition of possible millions to the consumers of its prints. The mere bustling tables represent a multitude of facts and phenomena abounding in essential interest to the provinces in which the tide of population has been flowing highest. Their importance for uncommercial and unofficial England is hardly emphasised at all by the fact, in appearance so astounding, that since 1871 Englishmen have received of new fellow-citizens as many within three hundred and fifty thousand as their own whole number equalled half a century ago. The census of India, with its battalions of gigantic figures, suggests to Englishmen how much those statistics might signify which they fail to signify in the relations subsisting between the populations of the sultan and its splendid dependency. The British people, as an assemblage of human beings, does not seem to derive its rightful degree of variety and freshness of vitality from the incorporation into it of this tremendous total of life. The two hundred and fifty-two millions of India might with yet more reason retort the complaint. Indian humanity contains elements by which Englishmen might not disdain to profit. The value of its hereditary intuitions of art is already recognised, though their secret is ill apprehended. Ingrained in the depths of Indian domestic traditions are a delicacy and refinement to which European observers of the luxury of indolent native nobles do little justice. But if a sentiment of fraternity between people so strangely conjoined would not be without its use to the dominant race, the subject race or races might learn on their part the more precious art of national existence and growth. India and Great Britain are bound together as solidly by political ties as if only the Severn or Trent divided them, and not continents and oceans. Hereafter, in the revolutions which wreck States, they may be parted. No signs, however, of such a catastrophe can be discerned, except by eyes which love to foresee evil. Should they be severed, it would probably simply be for India to fall under a heavier alien yoke. At present, at all events, they have to walk hand in hand. For their mutual advantage their leaders on both sides should strive to infuse into them the sense of national unity by which they might learn to benefit by one another's virtues, as well as to take warning by one another's errors. An India which should accustom itself to feel British in more than name would be an India with a future as well as a past. Under the British standard alone can its inhabitants hope to attain the substantial consolidation of which the west has been its undoing. The native of India may find it as hard as the Englishman—he cannot find it harder—to realise how it happens that he and his two hundred and fifty-two millions of countrymen are come to be subjects of a couple of petty Atlantic isles. If he try, he will find it at least as difficult to understand by what strange process those two hundred and fifty-two millions, with their mixture of hostile constituents, have been brought to dwell in peace and been qualified for representation, with no ostensible violence of metaphor, as a single people in one census paper. British rule has united India better than did its most potent Moguls. It is for the Indian populations to gain their highest advantage out of the destiny which has turned them into British subjects by claiming their share in the spirit and pride of British nationality.

AN AMUSING "ADVERTISEMENT."

An amusing political satire has been issued and has been given the name of the papers announcing an important Sale by Public Auction, as follows:—

SELLING OFF! RETURNING FROM BUSINESS!!
Freeholds, Leaseholds, Reversionary Interests, Household Effects, and Shares.

Mr. W. E. GLADSTONE will sell by Auction, at the Boer's Head Hotel, on Saturday, the 1st day of April next, at noon (Greenwich Mean Time), the whole of the vast Landed Estates, Goods, Chattels, and Effects of JOHN BULL, Esq., who is retiring from Business on account of advancing age and ill-health, induced by recent losses in his Transvaal Venture, comprising,—

THREE KINGDOMS (United or Otherwise),
One Empire, One Dominion, Forty-eight Colonies, and One Barony.

Situate as undermentioned, and containing upwards of 8,982,117 square miles (with a total rent roll of £174,778,000) of good freehold and leasehold land, Government offices, residences, and missionary stations. One large public-house, known as "The Lords and Commons"; also, an extremely elegant, spacious, and well-built family mansion, known as "Buckingham Palace," with greenhouses, gardens, stables, &c., and every necessary apartment. The residence contains ample accommodation for a family of position, is situate in its own grounds, and commands good views of the Nelson Monument, St. Paul's Cathedral, and Westminster Abbey, and is within easy distance of the thriving market towns of London and Westminster. Railway communications to all parts close at hand.

The whole will be offered in one lot, and falling to find a purchaser, will be put up in 14 lots, as under:—

LOT 1.—GREAT BRITAIN. This Freehold Estate is comprised of the adjoining properties of ENGLAND, WALES, and SCOTLAND, the first of which has been in the possession and occupation of the Vendor's family for a lengthened period, and on it are situated the above-mentioned Family Mansion and Public House.

NOTE.—All Impositions, notably the Russian Cannon, which have been placed in ornamental positions on this Estate, and to which the Vendor acknowledges he has no special right, will be returned to their respective owners, with apologies, if demanded, at the close of the sale.

LOT 2.—IRELAND. A fine Residential Property with bullet-proof Dwelling Houses and Out Buildings. (This is coloured green on the plan, and the option of purchasing it will be first offered to the present proprietors.)

NOTE.—As the Vendor cannot disguise the fact that this is a bad lot, he will not enter into any covenant to indemnify the purchaser from loss arising from Boycotting, or other sentences of the Land League Courts, but the purchaser will be entitled to appropriate any back rents he may be able to collect.

LOT 3.—INDIA. This magnificent Empire, purchased by the Vendor at enormous expense, would form a most desirable acquisition to neighbouring owners. The key of the Mansion may be obtained on application to Mr. ANITA HANMAN, *Cassidhar Lodge*, close to the north-west entrance of the demesne. There is a great variety of game on the Estate, and also capital Bear shooting within easy distance. In this lot is included a right of way over the Cyprus Estate.

LOT 4.—CANADA. All that well watered Messuage Tenement, Dominion, Hereditaments, and Premises lying to the northward of the allotment ground known by the name of the "United States," formerly in the Vendor's possession.

NOTE.—The present Steward of this Estate is in connection of the Vendor, and can, if necessary, remain in charge for a limited period, to suit the convenience of the purchaser.

LOT 5. Two small but very conveniently situated ISLAND DEPENDENCIES known respectively as HELIGOLAND and MALTA, and a rocky Promontory called GIBRALTAR.

NOTE.—All of these nice little Properties are in Europe, and would be most valuable acquisitions to an enterprising Company as Coaling Stations, or to Yacht Clubs.

LOT 6. Four semi-detached Residences, ADEN, HONG KONG, SARAWAK, and SINGAPORE, and two Islands, CEYLON and LABUAN, the whole known as the British Colonies in Asia.

LOT 7. All these Freehold, Leasehold, and Copyhold Estates, collectively known as the BRITISH COLONIES IN AFRICA. This lot includes the Transvaal Farm, which is Leasehold, and the Purchaser may have at any time short notice to quit.

LOT 8. Comprises the WHOLE OF THE BRITISH COLONIES IN AMERICA and the WEST INDIES. The purchaser of this Lot will have the right of fishing over the waters of the Newfoundland Fishing Association and a Reversionary Interest in a large number of Bonds issued by the Peruvian Government.

LOT 9. Comprises the whole of the BRITISH COLONIES IN AUSTRALASIA. This lot abounds in mineral wealth, and also offers special attractions to sheep-farmers and others. A portion of this property is of immense interest to historians as the scene of the early labours of Arthur Orton.

LOT 10. All that Choice Assortment of WAR SHIPS, wooden, iron, and plated, of the newest patterns and designs, as well as the GREAT GUNS, TORPEDOES, &c., all of the Vendor's own manufacture, for which he has long been so justly celebrated, and MARINE STORES of every description. This lot is the Finest Collection of specimens of naval architecture in the world, and includes that fine old three-decker "The Victory," which although depreciated by the radical tendencies of the age, is still an object of respectful veneration to all admirers of the brilliant history of the present owner's family.

LOT 11. All that choice assortment of WARLIKE IMPLEMENTS (not included in the last lot); comprising Rifles (both breech and muzzle loading), Swords, Bayonets, and other Accoutrements, Hellographs, Field Telegraphs, Rocket and other Apparatus, used by the British Army before its annihilation.

NOTE.—It will be observed that as the Vendor is disposing of the whole of his real estate, the property comprised in the last two lots, hitherto used in defence of the same, will be of no further use to him.

Other lots are enumerated. The complete satire has been published at 3d. per copy, and is being largely sold.

CATALOGUES, illustrated by Woodcut, laboriously executed by the Auctioneer himself, of objects of interest in and about the Property, may be had on application at his office. All communications replied to immediately by post-card. For cards to view the several Properties, apply to the Vendor's Solicitors,

Messrs. JAMES & HERSCHELL, Westminster, or to the Auctioneer, Government Auction Office, Downing-street, S.W.

Am. Ark. Archives
1881 May 25

London 28 October 1881

The romance of human life, in this quarter of the world, has gone down considerably since the day when elephants, lions, tigers, camelopards, and other wild creatures were exhibited and sacrificed by hundreds at a time to gratify the insatiable populace of Rome. It is a point in the long struggle between wild nature and man that all may turn to with interest. The naturalist may speculate on the possibility of creatures now extinct, the survivors of former worlds, having crossed the Mediterranean in those huge and miscellaneous living cargoes described simply as non-descripts, just as an odd fish sometimes makes its appearance in a net, and is a day's show. The only one of its ancient race, perhaps, stood in the amphitheatre to see and be seen by 80,000 spectators, too greedy of sport to scrutinize the game, and was the next instant drawn by hooks to be cast into the Tiber. This continual flow of the grandest forms of animal life was chiefly from Africa. The regions behind modern Tunis and Algiers were then as peopled with ferocious beasts, and the poor herds they fed upon, as the South African interior of which GORDON CUMMING gave so good an account. The tradition of man's early intermeecine struggle with his brute competitors for the dominion of the plain has come to us in an infinite variety of form. In almost every human being the spirit of the hunter shows itself at the first opportunity. GIBSON relates, with his wonted humour, how that, centuries after the games had almost exhausted the wild life of the world, a considerable section of the old Roman nobility undertook to fight as many wild beasts in the amphitheatre. Upon the whole, he observes, man had the victory, for, though most of the human belligerents were horribly mangled, still in the actually killed on the field man had the advantage. It will not, perhaps, strike everybody in the same way, but, as a matter of fact, man has by no means completed his victory over his brute foes. There remains a great deal to be done by one means or another. Indeed, just now the brutes seem to be gaining ground upon us. India is very near home, and Bengal a very familiar word, yet in India last year, as our Indian telegrams showed yesterday, the deaths by wild beasts or snakes have gradually increased from 19,273 in 1876 to 21,990; while the largest number of deaths was in Bengal, where 10,064 persons died from snake-bites and 359 were killed by tigers. The authorities announce with proper regularity that the greatest pains are taken to destroy the wild beasts by the promise of head-money to the destroyers. There are those who allege that the failure of adequate results is owing to the unrecognized fact of there being actual tiger preserves—that is, jungles reserved for the gun—when there would be no difficulty in clearing them by the surer and quicker plan of properly constructed and properly baited traps, or by the use of poison. This, however, is a charge more easily made than proved, and thus far it is to be considered that India is a very large country, that its population is not very robust and adventurous, and that the vegetation of a single year's growth is sufficient to harbour any number of these vermin. The most lamentable item is that of the snake-bites. This is a question of antidotes. Most of the victims are bitten in the woods or in the long grass, far away from help, and are only brought home dead

or past cure. France has never lacked the taste for the heroic kinds of sport, but has latterly been stinted for fields of action. DU CHAILLU showed what a Frenchman could do, but it is not everybody who can organize the invasion of a savage interior. It requires material means as well as great physical powers. France still exhibits with pride the wolves killed within living memory in the very neighbourhood of her great towns. She still flatters herself there are bears in the Pyrenees. Only a few years ago an English traveller came on a very picturesque figure, dressed in the last Parisian fashion for a bear-hunter, accompanied by a native guide, traversing some of the many tracks between France and Spain. He had come out resolved not to return to Paris till he had shot a bear. He had built a hut, and made himself fairly comfortable. His engagement with his gamekeeper was to give him a napoleon a day as long as the pursuit lasted and twenty napoleons at the capture. He had followed several bear tracks till they were lost in recent snow. So of the bears there could be no doubt. But they were shy. Trusting to the simple nature of his guide, he thought twenty napoleons in hand would be an overpowering inducement to the greatest exertions. But perhaps even a Spanish peasant is capable of comparing twenty napoleons once for all and thirty napoleons a month. It certainly was not the guide's interest to catch the bear, but rather to give the brute due warning of the pursuer. Every tourist is acquainted with the figure of the ordinary French sportsman, in a dress faithfully copied from the books of costume, travelling generally by omnibuses to some distant suburb, and ensconcing himself in some *chasse-garde*, surrounded by walls, where he and his dog lie in ambush the whole day for the chance of a passing bird, which, if he be so fortunate as to kill it, he carries home daintily by its legs or at the bottom of his ornamental pouch. But let nobody smile at the poor man. He is doing what he can. It is a very old maxim that the sport must not be measured by the prey. The renter of a costly shooting cares nothing for grouse or red deer. The English gentleman preserves and shoots his game, but generally leaves others to eat it.

But a magnificent future is looming before the hopeful eyes of the French sportsman. A paragraph which we publish elsewhere records that an enterprising Frenchman has taken on lease a large tract of Southern Algeria, which it is to be hoped is enclosed by some of nature's walls, and intends to people it with lions, panthers, and other ferocious animals. They are to be allured into it by placing on the ground horses and other animals become worthless for human food. How the wild beasts are to be kept alive in a district described as incapable of supporting ordinary animal life, for such it must be if it is wholly unfit for agriculture, is a detail not yet told. Doubtless, however, it would be a matter of no great difficulty or cost to keep a dozen or two lions and panthers fed enough to live and hungry enough to be dangerous. In the middle of this Happy Valley is to be an hotel, furnished with every luxury, and inviting not only sportsmen, but those who wish to see the daily return of the sporting parties, that is if they return, to examine the bag, and to hear the adventures. The sportsmen are either to go out boldly into the open or into the jungle, and encounter

the brutes in single combat; or, if they prefer it, may occupy ambuscades, or safer posts, and take their chance of a passing shot. No doubt, too, there will be proper stands for the spectators, especially on the occasion of a *battue*. Indirectly, the establishment will clear the neighbourhood, for the wild beasts now at large are to be enticed into the enclosure. The idea is feasible. In Switzerland there are several valleys enclosed by high precipices, and only to be entered at some very narrow opening. Near Naples the crater of an extinct volcano has for centuries been utilized as a preserve of wild boars. All true sportsmen must congratulate the French projector on his plan for utilizing a district otherwise useless, and keeping up the national spirit for heroic adventure. It is very ungracious to hint at the difficulties which are such as money may surmount. There is a natural balance between the number of wild beasts and the animals they prey upon; this will have to be kept up, and will not be an insurmountable difficulty. If the plan succeeds—if, say, for one sportsman so unlucky or so *maladroit* that he falls to the beast a dozen beasts fall to the man—no doubt we shall see some of our English aristocracy going to see what real sport is and taking their share in it. The scene is nearer than India, and so may attract more sportsmen; though these may remember that the killing of wild beasts in India is not merely a pastime, but a positive service to humanity. The only novelty about the French project is that instead of bringing the beasts to the amphitheatre, we are taking the amphitheatre to the beasts. There is not in this instance the old grievance of depopulation, such as that of the New Forest and of Yorkshire in the CONQUEROR'S time, or of the Scotch highlands in our own. The district is said to be good for nothing else. The proposal is to make it a playground. If it answers, sportsmen from all Europe will flock there. Our own foxhunters have been warned off Ireland, and their hold upon English soil is not so strong as it has been within living memory. What remains when the fox is extinct? The project before us is one answer to the impending question.

Times 15 April 1881

THE SERAPEUM OF MEMPHIS.—A lecture was yesterday delivered by Professor A. Mariette, M.A., before the members of the Crystal Palace Company's School of Arts, Science, and Literature on "the remarkable discovery of the Serapeum of Memphis," by the brother of the lecturer, now his Excellency Mariette Pasha. After some introductory observations, the lecturer proceeded to say that M. Mariette eagerly volunteered to follow the track of Lord Prudhoe, afterwards fourth Duke of Northumberland, and of Tattan, to collect for France what Coptic and Syriac manuscripts had escaped the investigation of the two great English travellers, and after inquiry the French Government did not hesitate to accept his services. In August, 1850, the young saron left France for Egypt. In Alexandria he was surprised to find lying in the gardens of European residents a great number of sphinxes in limestone, covered with ancient Greek inscriptions. He was informed that they had all come from Sakkarah, the site of the ancient Memphis, and had been found in the desert, and he concluded that they could not but be connected with one of the marvellous avenues that led to the Egyptian sanctuaries. On reaching Cairo Auguste Mariette placed himself in communication with Lisant Bey, who volunteered to guide him in his expedition. Having visited the Pyramids and explored the vast necropolis in the midst of which they stand, he proceeded to Sakkarah, and, while awaiting the arrival of his friend he made a topographical survey of its necropolis. He pursued remaining a few days—he actually remained four years. He remembered a passage in Strabo, in which the old geographer, who was born 60 years B.C., spoke of the Serapeum of Memphis being placed at the entrance of the Lybian desert, and being constantly threatened with invasion from the sand. Soon afterwards his foot struck against what proved to be a libation table, sculptured in honour of Osiris-Apis, which is now to be seen in the Louvre, and he concluded that the tombs of Apis, which must contain so many scientific treasures, could not be far off, and he determined to seek for the Serapeum at all risks. The search for manuscripts was given up, and his credit and future career were at stake. The Egyptian Apis, as old as the worship of the divine bull, had two homes, in one of which he lived under the name of Apis, the other, where he reposed after his death, under the name of Osorapis or Serapis. He was prepared to find the latter plundered of its treasure, as it was by the early Christians, but the plunderers had, perhaps, spared the archaeological and historical treasury, which was far more valuable than any amount of silver and gold. He commenced his labours in the desert with a score of fellows, some with packasses, some with baskets to carry off the sand. A second sphinx soon rewarded their labour, and others followed to the number of 21. They formed a few of those which constituted an avenue of sphinxes in the middle of a vast necropolis. The avenue wound its crooked way between vast funeral monuments. The labour entailed might be gathered from the fact that while the sphinxes first discovered lay at a depth of 12 feet below the surface the others were found at a depth of between 60 and 70 feet. At last the 136th sphinx was brought to light at a spot where the avenue turned to the right at an angle of 85 degrees. The work was pushed on vigorously in spite of enormous difficulties, which the lecturer detailed at some length. One day 11

1880.—Men, 884; women, 199; children under 16, 443.
 1879.—Men, 884; women, 199; children under 16, 443.
 1878.—Men, 884; women, 199; children under 16, 443.
 1877.—Men, 884; women, 199; children under 16, 443.
 1876.—Men, 884; women, 199; children under 16, 443.
 1875.—Men, 884; women, 199; children under 16, 443.
 1874.—Men, 884; women, 199; children under 16, 443.
 1873.—Men, 884; women, 199; children under 16, 443.
 1872.—Men, 884; women, 199; children under 16, 443.
 1871.—Men, 884; women, 199; children under 16, 443.
 1870.—Men, 884; women, 199; children under 16, 443.
 1869.—Men, 884; women, 199; children under 16, 443.
 1868.—Men, 884; women, 199; children under 16, 443.
 1867.—Men, 884; women, 199; children under 16, 443.
 1866.—Men, 884; women, 199; children under 16, 443.
 1865.—Men, 884; women, 199; children under 16, 443.
 1864.—Men, 884; women, 199; children under 16, 443.
 1863.—Men, 884; women, 199; children under 16, 443.
 1862.—Men, 884; women, 199; children under 16, 443.
 1861.—Men, 884; women, 199; children under 16, 443.
 1860.—Men, 884; women, 199; children under 16, 443.

TO THE EDITOR OF THE TIMES.
 Sir,—The Times contained in its number of the 14th of February last a report of the proceedings (before Lord Chancellor Sir Charles Hall) in reference to the Hungarian Trade Company (Limited), in which the allegation was made that there was a decree of the Austro-Hungarian Government prohibiting the export of cattle and sheep. I have obtained official information to the effect that this allegation is quite unfounded, as no such decree of prohibition of export has been issued.
 I have the honour to remain, Sir, your most obedient servant,
 I. KHAYE, Consul-General,
 London, April 14.

EXPORT OF LIVE STOCK FROM HUNGARY.
 BOSTON, APRIL 13.—The Grand Royal Mail steamer (RETTEN'S TELEGRAMS.)
 Sailed from London at 1 p.m. to-day.

Allen's Indian Mail 24 October/80

THE OPIUM TRADE.

ON Friday the Lord Mayor presided at a meeting in the Egyptian Hall of the Mansion House in support of the movement against the opium trade. There was a large attendance, including many ladies. The Lord Mayor was supported on the platform by the Archbishop of Canterbury, Cardinal Manning, the Earl of Shaftesbury, and a large number of gentlemen. The Lady Mayoress occupied a seat immediately under the platform with several ladies. The proceedings were opened by prayer said by the Rev. R. J. Simpson. Letters were announced from the Dean of Westminster, Mr. Spurgeon, the president of the Wesleyan Conference, Mr. W. H. Gladstone, and others, regretting their inability to attend.

The Lord Mayor, in opening the proceedings, said that our war with China in support of the opium trade was a most unjustifiable war. He fully agreed with Mr. Gladstone that this war was unjust in its origin and was a permanent disgrace to this country. (Hear, hear.) England had spent a great deal of money on the abolition of the slave trade, to the very great honour of this empire. England had, however, on the other hand, contributed to the slavery of the Chinese by the encouragement of a trade destructive both to the body and the soul of the people of China. He hoped that that large and influential meeting would have the good effect of attracting the attention, not only of the whole of the people of England, but of the Government of England as well. (Hear, hear, and applause.)

The Archbishop of Canterbury, who was very enthusiastically received, moved the first resolution, "That in the opinion of this meeting the opium trade, as now carried on between India and China, is opposed alike to Christian and international morality, and to the commercial interests of this country. That in the opinion of this meeting it is the duty of this country, not only to put an end to the opium trade as now conducted, but to withdraw all encouragement from the growth of the poppy in India, except for strictly medicinal purposes, and to support the Chinese Government in its efforts to suppress the traffic. That in the opinion of this meeting it will be the duty of this country to give such aid to the Government of India as may be found reasonable, in order to lessen the inconvenience resulting to its finances from the prohibition of the policy advocated in the preceding resolution." His Grace said that of the financial position, he was not competent to presume to know anything.

That a copy of the resolution should be presented to the Prime Minister the Lord Mayor, chairman of the meeting, and the Lord Mayor, president of the society, be requested to take the necessary steps to give effect to this resolution. Mr. Albright (Birmingham) stated that Birmingham would contribute £3,000 to a fund to carry on the movement, and he hoped that London would be asked to make three times that amount. A vote of thanks to the Lord Mayor concluded the proceedings.

Last year's returns show that the number of persons killed throughout India by wild beasts or snakes has gradually increased from 19,273 in 1876 to 21,990 in 1880. The largest number of deaths occurred in Bengal, where 10,064 persons died from snake bites and 1,000 were killed by tigers. The increase is not in the least to be regretted. The registers of population and deaths are not kept in the same manner as in the past, and the number of persons killed and continue for eight days.

A grand durbar for the purpose of investing the young Gairwar will be held at Baroda on Dec. 28. The festivities in connection with the event will commence on the 24th and continue for eight days.

We are told by the Calcutta telegram in the Times that the Government has sanctioned a scheme for the transfer of savings banks from local treasuries to the post-offices. Thus 3,800 savings banks will be established throughout India. This scheme, which doubtless owes its inception to Mr. F. R. Hogg, promises to be a useful one if the details can be satisfactorily arranged, but it will largely increase the responsibilities of the poorly-paid village post-masters.

It has been resolved to make Dargiling a military station for a wing of a European regiment and a battery of artillery. Committees are now assembled to determine the best site for a barracks. The suspension and limitation of retirements whenever necessary.

Allen's London Mail 21 October/86

THE SERAPHEUM OF MEMPHIS.

A lecture was peculiarly delivered by Professor A. Mariette, M.A., before the members of the Crystal Palace Company's School of Art, Science, and Literature on "the remarkable discovery of the Serapeum of Memphis," by the brother of the lecturer, now his Excellency Mariette Pasha. After some introductory observations, the lecturer proceeded to say that M. Mariette eagerly volunteered to follow the track of Lord Probus, afterwards Lord of Northumberland, and of Taitan, to collect for France what Lytic and Myric manuscripts had escaped the investigation of the two great Egyptian travellers, and after inquiry the French Government did not hesitate to accept his services. In August, 1850, the young archaeologist left France for Egypt. In Alexandria he was surprised to find lying in the gardens of European residents a great number of sphinxes in limestone, covered with ancient Greek inscriptions. He was informed that they had all come from Sakkarah, the site of the ancient Memphis, and had been found in the desert, and he concluded that they could not but be connected with one of the marvellous wonders that led to the Egyptian antiquities. The resulting Cairo Auguste Mariette passed himself in communication with Linant Bey, who volunteered to guide him in his expeditions. Having visited the Pyramids and explored the vast necropolis in the midst of which they stand, he proceeded to Sakkarah, and, while awaiting the arrival of his trained men, made a topographical survey of his necropolis. He put, indeed, remaining a few days—he actually remained four years. He remembered a passage in Strabo, in which the old geographer, who was born 60 years B.C., spoke of the Serapeum of Memphis being placed at the entrance of the Lytic desert, and being constantly threatened with invasion from the sand. Soon afterwards the feet struck against what proved to be a libation table, sculptured in honour of Isis Apis, which it now to be seen in the Louvre, and he concluded that the temple of Apis, which most contain so many ancient treasures, could not be far off, and he determined to seek for the Serapeum at all risks. The search for manuscripts was given up, and his credit and future career were at stake. The Egyptian Apis, as well as the worship of the divine bull, had two names, in one of which he lived under the name of Apis, the other, where he reposed after his death, under the name of Osopos or Soopos. He was prepared to find the latter place, and of its treasure, as it was by the early Christians, but the priests in it, perhaps, spared the archaeological and historical treasure, which was far more valuable than any amount of silver and gold. He commenced his labours in the desert with a score of felahs, some with pickaxes, some with baskets to carry off the sand. A second sphinx soon rewarded their labour, and others followed to the number of 21. They formed a row of those which constituted an avenue of sphinxes in the middle of a vast necropolis. The avenue wound its crooked way between vast funeral monuments. The labourer established might be gathered from the fact that, while the sphinxes first discovered lay at a depth of 12 feet below the surface, the others were found at a depth of between 40 and 70 feet. At last the 150th sphinx was brought to light at a spot where the avenue turned to the right at an angle of 80 degrees. The work was pushed on vigorously in spite of enormous difficulties, which the lecturer detailed at some length. One day 11 of the labourers were buried under an avalanche of sand, and were with difficulty extricated. The headmen of the neighbouring villages ordered that all supplies of food should be withheld, and the felahs were obliged to work for him, but in spite of these and various other difficulties, including orders from the highest authorities in Cairo to desist, which he disregarded, he still persevered. After the last sphinx had been secured, a sphinx of granite, paved with fine dagstones, was discovered. It was in shape a semicircle, decorated with 11 Greek stations of poets, philosophers, and law givers, and it occupied the explorer's way. He determined on a new departure, and soon came on a chapel, bearing the royal cartouches of Nectanebo I. of the 30th dynasty, the last but two of the indigenous Pharaohs. The image of Apis stood there, a welcome indication to the young explorer that he was on the right track. But the chapel stopped his way, and he had to take a new direction. He did so to the west, and two other chapels were discovered; one in the Egyptian, the other in the Greek style. The latter was empty; in the former stood a statue of Apis in same with the solar sign before his loins. The statue, before which Alexander the Great, Cleopatra, and Caesar must have passed, and which must have witnessed the last solemn rites of the funerals of Apis, was now an object of admiration at the Louvre. Along both sides of a paved caseway ran a wall 6ft. high, built of large blocks, upon which, as upon a pedestal, stood colossal statues of fantastic animals. A peacock, 6ft. high, carrying a little Ganesha, a gigantic cock, a horse, a panther with a serpent's tail, a crocodile—all led by children—a plant with a woman's head, seen with strange faces; all symbols of the mystic symbolism of Egypt as conceived by the Greek mind. The work was carried on in most trying circumstances. All sorts of impediments were thrown in the way of the indefatigable archaeologist, but they were got over. High officials arrived from Cairo with prohibitions which he contrived to disregard. When his labour was found to be crowned with success the Egyptian authorities claimed their fruit; but the monuments he had discovered he contrived to have conveyed to Alexandria and shipped to France. European international jealousies and Turkish cupidly conspired together against the young antiquarian, but with undiminished enthusiasm he continued his course, and after a lengthened period the French Government interfered on his behalf and sent him a large and welcome remittance. The details of the further excavations were narrated by the lecturer, who added that during the night of the 12th of November, 1851, the last loads of sand were removed, and a long gallery was opened to view. The explorer attempted to enter, but his light was extinguished by foul air. At last he was enabled to enter and stood in the tomb of Apis. He beheld walls covered with tablets with thousands of texts and with divine images; a treasure of historical documents which have no parallel in the world. It was not until February, 1853, that a less important sphinx enabled the explorers to work at all efficiently. To the 251 monuments which had been already forwarded, over 2,000 others were safely sent to Alexandria. The sarcophagi discovered were of polished granite, each cut out of a single stone, and were 10ft. in height and 2ft. in length, and weighed upwards of 60 tons. It was difficult to realize by what mechanical contrivance such enormous masses of stone were transported to their resting-places from the far distant quarries. When the entrance to the great tomb was effected the finger marks of the Egyptian who had closed up the last stone of the floor were still visible in the cement, and on the sand of the floor was still to be seen the impression of the naked feet of the workmen who 2,250 years before had deposited the deified Apis in his tomb. This and other things yielded many valuable and beautiful specimens of jewelry which now enriched the collection of the Louvre.

THE OPIUM TRADE.

ON Friday the Lord Mayor presided at a meeting in the Egyptian Hall of the Mansion House in support of the movement against the opium trade. There was a large attendance, including many ladies. The Lord Mayor was supported on the platform by the Archbishop of Canterbury, Cardinal Manning, the Earl of Shaftesbury, and a large number of gentlemen. The Lady Mayores occupied a seat immediately under the platform with several ladies. The proceedings were opened by prayer said by the Rev. R. J. Simpson. Letters were announced from the Dean of Westminster, Mr. Sparrowe, the president of the Wesleyan Conference, Mr. W. H. Gladstone, and others, regretting their inability to attend.

The Lord Mayor, in opening the proceedings, said that our war with China in support of the opium trade was a most unjustifiable war. He fully agreed with Mr. Gladstone that this war was unjust in its origin and was a permanent disgrace to this country. (Hear, hear.) England had spent a great deal of money on the abolition of the slave trade, to the very great honour of this empire. England had, however, on the other hand, contributed to the slavery of the Chinese by the encouragement of a trade destructive both to the body and the soul of the people of China. He hoped that that large and influential meeting would have the good effect of attracting the attention, not only of the whole of the people of England, but of the Government of England as well. (Hear, hear, and applause.)

The Archbishop of Canterbury, who was very enthusiastically received, moved the first resolution, "That in the opinion of this meeting the opium trade, as now carried on between India and China, is opposed alike to Christian and international morality, and to the commercial interests of this country. That in the opinion of this meeting it is the duty of this country, not only to put an end to the opium trade as now conducted, but to withdraw all encouragement from the growth of the poppy in India, except for strictly medicinal purposes, and to support the Chinese Government in its efforts to suppress the traffic. That in the opinion of this meeting it will be the duty of this country to give such aid to the Government of India as may be found reasonable, in order to lessen the inconvenience resulting to its finances from the adoption of the policy advocated in the previous resolutions." His Grace said that of the financial side of the question he did not presume to know anything. As to all the other phases of the question, he was satisfied that the time had arrived when the people of England should state distinctly their opinion as to the course pursued by us in India and China as to the opium trade, and see whether that trade should not be abandoned at any cost. (Hear, hear.) They had come to that point when it became necessary for the people of this country to make known their views on the subject, and to say that they were determined by God's help to do their utmost to call the attention of their rulers, in as powerful language as possible, to this grievous wrong, and to ask them to have nothing more to do with it. (Hear, hear.) The advocates of the continuance of this trade stated, in a defence of it which they had heard, that

opium was smoked by only 1 per cent. of the population of China, and that, therefore, they were exciting ourselves about what was in China a very small evil. When, however, the figures supporting this statement were looked at, carefully it would be seen that the people who smoked opium were the supporters of the consumption of opium numbered, even according to the supporters of the trade, two millions. That might be a small number of human beings in China, but two millions of people constituted as many persons as made up the inhabitants of the diocese of London, and were half of those who formed the whole population within the metropolitan district of this city of London, so that what they had to deal with, even according to the defence he referred to, had to do with the rescuing from thralldom of the most deplorable of two millions of human souls. Speaking as a minister of religion he had no hesitation in saying that missionaries from China, whom he had met with from time to time, while speaking in satisfactory and hopeful terms of the progress of Christianity in China, agreed that the opium trade had the most deleterious effects on the rising population of that empire, and stated that one of the commonest impressions in China was, that if the English were not the persons who first introduced opium into China they were the persons who kept it up. He had recently read with great interest a letter from the Secretary of State of China, addressed to our Ambassador in London, in which he urges the question of this traffic on the attention of the people of England. His Grace trusted that the letter would make a strong impression on the people of England. The Lord Mayor had referred to the abolition of the slave trade. His Grace remembered the time when it was said that to have a squadron on the West Coast of Africa to keep a check upon the slave trade was useless, as the slave trade would never be got rid of. Had they been deterred then by such statements England would not be able to congratulate itself on the abolition of the slave trade. In the same way he hoped they would not be deterred by what was said in support of the opium trade from carrying to a successful issue the movement for the furtherance of which the meeting was held. (Applause.) The Canadian Government, were at the present moment, greatly to their honour, endeavoring to protect the inhabitants of that colony from the importation of spirituous liquors. (Applause.) How could the English people reconcile to their consciences the keeping up of the opium traffic in India and China while they were doing their best to put a stop to somewhat similar traffic in other parts of the world. One of the articles in a treaty with China was to the effect that the English should no longer be looked upon as barbarians. What was of far more importance was to show to the Chinese that as Christians they did not forget their duty, and that they were as ready to introduce into China the virtues of civilization as its vices. (Loud applause.)

The Earl of Shaftesbury seconded the motion, which was supported by the Rev. E. J. Jenkins and carried unanimously.

Cardinal Manning, who was also very cordially greeted, moved—"That, in the opinion of this meeting, the results of the sale of opium in British Burma are a disgrace to our Government of India, and demand the most thorough and immediate remedy." He fully agreed with all that had been said as to the disgraceful and demoralizing effects of the opium trade. The Emperor Nero wished that the Roman people had but one neck, that he might cut it through in one blow. Cardinal Manning was glad to find that a sword was hanging over the opium trade, which he hoped would ere long fall. In support of the resolution, the Cardinal adduced the evidence of several missionaries and other reliable authorities. If this trade was not put down, he feared that a severe chastisement would come upon England, and perhaps sooner than was generally anticipated.

Mr. J. PALMER, M.P., seconded the motion, and it was carried with unanimity.

Mr. Donald Matheson moved, and the Bishop of Bedford seconded, the following, which was also agreed to unanimously:—"That a deputation from this meeting be appointed to lay before the Prime Minister the foregoing resolutions, and to press upon him the duty of adopting the policy therein approved; and that the Lord Mayor, chairman of the meeting, and the Earl of Shaftesbury, president of the society, be requested to take the necessary steps to give effect to this resolution."

Mr. Albright (Birmingham) stated that Birmingham would furnish £3,000 to a fund to carry on the movement, and he hoped that London would be asked to make three times that amount.

A vote of thanks to the Lord Mayor concluded the proceedings.

Times 16 January 1882

Standard 14 January 1882 Times Jan. 31 1882

THE OPIUM QUESTION.

TO THE EDITOR OF THE TIMES.

Sir,—Time did not admit of any decision being come to last night at the discussion of this subject at the Society of Arts, and no opportunity was afforded for explaining the question as it affects India. It was not denied that the cultivation of the poppy has long been practised in China, and that it is extending greatly in all parts of that country where the soil and climate are suited to the production of opium. In a moral point of view, therefore, if the Indian growth were entirely stopped, its place would be at once supplied by extending the home growth. India is only resorted to because it produces a higher quality than China. There is a special kind of soil and climate for this finer quality, which has not yet been found in any part of China. Should that be discovered, and the requisite supply of fine quality be produced in China itself, there would arise a real danger to the Indian revenue, of which at present Indian opium yields one-sixth, besides affording a large Customs revenue to China, which the Chinese justify on the same grounds as we justify our liquor duties in this country.

While in India, as a member of the Famine Commission, I had an opportunity of visiting one of the principal opium factories, and inquired into its cultivation, and the arrangements made with the growers, and for its ultimate sale by the Indian Government. Not a rood can be sown without a Government licence, the agents of the Government prescribe the details of management, and when the crop is ready it is all carried to the Government factory. The cultivators find it a very paying crop and are keen to grow it. The poppy requires good soil, very carefully prepared and well watered during its growth, and well manured. It thus forms a good foundation for following crops. When prepared and packed in the factory it is sent to Calcutta and sold by the Government, by public auction, to the export merchants, who ship it to China.

The Indian growth, so long as it remains a Government monopoly, is thus strictly limited in its extent. If the Government gave up the control the growth would at once rapidly extend, and the evil would become worse. Therefore, to produce the result desired, the Government must not only give up this source of revenue, but forbid its subjects from making the most profitable use of their land; and this for the moral advantage of the Chinese, who are the most astute and practical people on the face of the earth, and who would at once increase their home supply, though they might be obliged to content themselves with an inferior and probably more noxious quality.

And at whose expense would this be done? Ten millions of revenue must be found from some other source in India. Every one who has examined the subject of Indian finance knows the manifold difficulties which present themselves against any proposition of that kind. And all hope of a reduction and final abolition of the salt tax must then be abandoned. Salt is indispensable to the daily food of the 250 millions of the Indian people. It is capable of unlimited production in India, and is so abundant in some quarters that by the river which falls into the Gulf of Cutch millions of tons are yearly washed away by the sea. The duty is ten times the cost of getting the salt, and with the duty it is then 18 times the price of the article in Cheshire. The duty yields about seven millions. It falls equally on rich and poor, with special

COLLIERIES EXPLOSION.—A serious explosion occurred yesterday morning at Biscoe, the scene of a disaster which has been made no less terrible by the fact that it is feared that the four men who were killed, as well as 50 horses which were injured, were the only persons who were present. It is supposed that for this purpose a short was fired and yesterday morning a small mine exploded the way. After the men came up from the accident it was found that the scene of a disaster occurred yesterday morning at Biscoe, the scene of a disaster.

SIR RUTHERFORD ALCOCK AND THE OPIUM TRADE.

TO THE EDITOR OF THE STANDARD.

Sir,—I might affirm that history itself dissents from Sir Rutherford's historical review of our intercourse with China. I might assert that Sir Henry Pottinger, who negotiated the Treaty after the war of 1841, admitted that "the trade in Opium was the great cause of the war." And with reference to Chinese feeling amongst all classes, I might make bold to offer the experience of twenty years. But of what avail would such statements be? They would be set aside, as the "loose statements" of a mere "Missionary."

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I am, Sir, your obedient servant,
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January 14.

Times 16 Jan. 1882

The report and estimates have been published of the new line of railway which it is proposed to construct along the northern bank of the Ganges. It will commence at Sonapore, opposite Patna, and run through the important towns of Chupra, Deoria, Goruckpore, Busti, and Gonda, to the terminus, at Bahraich, in Oude. The branch lines will be five in number—namely, the first, from Goruckpore to Nichloul, on the Nepal frontier; the second, from Bustee to Bansee; the third, from Mankapur to Nawabgunj; the fourth, from Gonda to Bahramghat; and the fifth, from Bahraich to Nepalgunj. The total length of the main line will be 276 miles and the estimated cost about 51,000 rupees per mile. The length of the branch lines will be 154 miles and the cost about 45,000 rupees per mile. It is expected that both the goods and passenger traffic will be very heavy.

CLEOPATRA'S NEEDLE.—On Saturday the arrangements were fully completed for placing four inscribed tablets on this ancient monolith, two of which will be in their places to-day. The following inscriptions, which were first modelled by Messrs. C. H. and J. Mabey, of Storey's-gate, Westminster, and then cast in bronze by Messrs. Young, of Pimlico, will become the permanent record of the circumstances attending the transit of the stone to this country:—

Eastern panel—facing the City:—
"This obelisk, quarried at Syene
Was erected at On (Heliopolis),
By the Pharaoh
Thotmes III., about 1800 B.C.
Lateral inscriptions were added
Nearly two centuries later
By
Rameses the Great.
Removed during the Greek Dynasty
To Alexandria, the Royal City of Cleopatra.
It was erected in the ninth
Year of Augustus Caesar, B.C. 23."
Western panel—facing Westminster:—
"This Obelisk,
Prostrate for centuries on
The sands of Alexandria,
Was presented to the British nation,
A.D. 1819,
By
Mahammed Ali, Viceroy of Egypt
A worthy memorial of
Our distinguished countrymen,
Nelson and Abercrombie."
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"Through the patriotic zeal of
Erasmus Wilson, F.R.S.,
This Obelisk
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Encased in an iron cylinder,
It was abandoned in a storm,
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Times 16 January 1882

Standard 16 January 1882 Times Jan. 31st 1882

THE OPIUM QUESTION.

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And at whose expense would this be done? Ten millions of revenue must be found from some other source in India. Every one who has examined the subject of Indian finance knows the manifold difficulties which present themselves against any proposition of that kind. And all hope of a reduction and final abolition of the salt tax must then be abandoned. Salt is indispensable to the daily food of the 250 millions of the Indian people. It is capable of unlimited production in India, and is so abundant in some quarters that by the river which falls into the Gulf of Cutch millions of tons are yearly washed away by the sea. The duty is ten times the cost of getting the salt, and with the duty it is then 18 times the price of the article in Cheshire. The duty yields about seven millions. It falls equally on rich and poor, but with special hardship on the poorest. Reckoning it by the consumption of families, and estimating each at five persons—man and wife and three children—it is a tax equal to a fortnight's wages on the average of every head of a family of the working class in India, the 24th of a man's labour being thus appropriated of necessity by the Government. Surely we are bound by every consideration of humanity and policy to prefer the interests of our own people in India to an endeavour at their expense to improve the moral condition of the Chinese, who are very capable of taking care of themselves.

I am, Sir, yours faithfully,
JAMES CAIRD.

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Was erected at On (Heliopolis),
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Nearly two centuries later
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Even 28 March 1882

JUMBO.

Jumbo is now caged, and, by the time this is read, may be in the docks. It is probable that difficulties of traction will cause delay; but efforts are being made to leave the gardens by midnight, to proceed in the small hours to St. Katharine's Docks, there to lift the elephant by hydraulic power on to a barge of the Thames Steaming and Lightering Company by 3 a.m., to tow down the river, and come into the Millwall Docks abreast of their powerful sheer-legs with the high tide at 4. The elephant would be fed in the docks a day or two and go on board the Assyrian Monarch late on Friday or early on Saturday.

At 8 o'clock yesterday morning the officials began to pack him up. He had a plentiful breakfast at 7 to put him in good humour. Mr. J. E. Davis, the representative in this matter of Mr. Barnum and his partners, arrived about an hour afterwards. The two keepers, Newman, the American, and Scott, the Englishman, now set to work. The animal had spent the night with his forelegs hobbled to the front bars of his house. The hobbles were raised to the higher part of his legs, a surcingle was drawn over his back and secured below, and his head was fastened to the surcingle by a martingale arrangement which leaves his mouth perfectly free to eat his usual meals, but prevents him from suddenly setting back his head for violent offensive movements with his head or trunk. The frost during the previous night had roofed his wooden cage with a fine white rime, and as the ice melted the moisture penetrated through the top of the cage and covered its floor with wet. This was swept out, and at 20 minutes past 9, the gang of iron workers and carpenters being ready to close up the ends of the box, Jumbo was led out into his paddock. He stopped for a moment at the entrance of his box, stepped into it, and might have stepped through, for both ends were open, but at the word of command from his keeper, "Woe, Jumbo," he stopped short in it. The chains which were upon his front legs were then passed through the openings in the side of the box and so made fast. When he felt his four legs fastened, Jumbo knelt down and put out his trunk to Scott, as if to implore release from bondage. There was something peculiarly human in this attitude, when having voluntarily assumed a kneeling position he bowed his head to the ground. Mr. Bartlett observed this gesture as a common one in elephants when they find themselves in the presence of superior force. Jumbo soon rose again, but it was two hours before they could get his hind legs into the coils. He stepped on to the slip knots, kicked them aside, dodged them with the greatest sagacity and apparent comprehension of the whole matter; but the superior pertinacity and address of the keepers prevailed. Besides the two keepers already mentioned, four other men who are employed in the elephant house were at work. Mr. A. D. Bartlett (superintendent of the gardens), Mr. Clarence Bartlett, Mr. Colam (secretary of the Society for the Prevention of Cruelty to Animals), Mr. Talbot (its chief inspector), and Professor Pritchard, the well-known veterinary surgeon, were also present. When Jumbo found his hind legs confined by the strong chains covered with leather, he made a determined effort for freedom. He pounded at the box with the stumps of his tusks till the ivory flew away in splinters, and he swayed his huge body against the sides. He had slightly abraded the skin of his tail against a bar when first put in, but sacking had been put over the bar to prevent this from recurring. When the elephant had struggled with his chains and against the sides of his cage for five minutes, he appeared to have satisfied his sagacious mind that they were too strong for him, and from that moment remained perfectly quiet, merely putting out his trunk to Scott who stood in front of him and willingly accepting the food which was occasionally offered. The chains attached to his feet were gradually drawn tighter till each leg had only 15 inches' play.

Many visitors had collected by this time—noon—and they still continued to arrive. The ends of the box being only closed with bars, having considerable interstices between them, the animal could be seen within. At 3 or 4 the men and horses arrived from Pickfords, the well-known carriers, who have contracted to remove the elephant to the docks by road and river. Six powerful dray-horses, of the sort which Indian princes call "English elephants," were harnessed to the box, which, with its living freight of six tons, cannot weigh much less than 12 tons. The first task was to drag the box slowly up the inclined plane which had been cut to make the box level with the ground, and so avoid compelling Jumbo to step upwards into captivity. As the horses made a movement forward every few inches gained were made good by blocking the wheels with great balks of timber placed behind. When level ground was reached, after about three-quarters of an hour, the powerful team went round quickly towards the gravel path between the elephant-house and the canal; but just in turning the corner they

came on a comparatively soft bit of gravel in a narrow way where there is only a slight bank of earth between the road (just wide enough for the car) and the sloping side of the canal. Some mischievous person in the crowd called "Woe," and the horses stopped in this awkward place. Before they could go on again the wheels sank deep in the soil. Ultimately they went down to the axle; and although jacks were now applied and the way was paved with boards, it was not till past 7, when the public were being turned out of the grounds, that the car got out of the hole. Night came on, and the work proceeded slowly by lamplight, somewhat less impeded by sightseers. Meanwhile a rough crowd had gathered at the entrance to see the car as it came out, and stood there for hours howling the wild beasts dumb. The car had travelled, leaving deep ruts, 100 yards in five hours, and was still in the grounds, the horses' heads pointed towards the road on the south side of the Regent's Canal. It was intended to travel to St. Katharine's Dock-house by Euston-road, King's-cross-road, Old-street, St. Luke's, and the Commercial-road. The night was clear and starlit, with a crescent moon in the sky and a chill wind blowing. Jumbo was protected from the keen air by tarpaulins stretched across the bars of the two ends of his box.

At 10 o'clock, the car having safely passed between two trees, the nearness of which to each other had at one time appeared to constitute an impediment to its passage, the horses were taken out and led away, and the car remained standing near the parrot-house. Some strong iron guides which had been placed on the side of the car to prevent it from tipping over were now knocked away and the address was nailed on to the box. It is on a square board, which bears the inscription—"Barnum, Bailey, and Hutchinson, New York, U.S.A." At about 10 15 the elephant began moving about uneasily in his box, put his trunk out, played with the straw in front, fished up one of the nosebags of the horses and afterwards threw it out on to the head of an attendant. Then, less good-humouredly, with short, quick jerks of his hind legs, he made his chains rattle again. Next he began to jog rapidly backwards and forwards, butting as he came forward against the front bars of his cage (which were free from tarpaulins), and making the ponderous box move backwards and forwards with his weight. Great clouds of steam burst from his trunk into the cold night air. As he felt his strength tell he appeared to redouble his exertions—the box rattled, and its frame quivered at every blow. It seemed merely a question of time to break it. If he continued these tactics long enough nothing could resist them. One of the attendants spoke to him, and quieted him for a moment, but Jumbo began again. At length, Scott, who had been taking supper, returned; the elephant was calmed at once, and shortly afterwards had food and water. According to one of the attendants, the danger is only postponed. The Indian elephants removed some time ago only became really troublesome when they left the grounds; and broke their chains on the road. It may be added that Jumbo himself snapped like tow a four inch rope which was used in fettering him yesterday morning.

At 11 15 Jumbo began to dance again, snorted, knelt down, worried his chains with his trunk, shook his box heavily, and would certainly have broken it if he had persisted; but at the command of his keeper he became quiet again.

A number of the S Division of police are in readiness to maintain order under the direction of Mr. Harris, superintendent of the division. Arrangements for the attendance of police all along the route have been made by telegraph.

The car had been propped up with shores to prevent the weight of its powerful inmate from pushing it over. At 12 15 the horses were put to; at 10 minutes to 1 they tried to start, with 10 horses harnessed two abreast, but the wheels had sunk so deep in the earth that it was impossible to move. Jacks were now applied to lift them, and at 1 o'clock a start was fairly made. As soon, however, as the car reached the exit from the gardens, there was a stoppage owing to the car having been pulled too much to the right and caught in the bank. Here the ground was soft, and the front wheels sank again. The crowd waiting outside raised cheers for Scott, and shouted that the Yankees should never have Jumbo. At 1 25 the car was safely out of the gardens and rattling off on the road to the docks. In two or three minutes it stopped again, to go on once more in due course.

At five minutes to 2 he passed safely through Gloucester-gate, two pairs of horses having been taken off for the purpose. The car just grazed the iron of the gate, and the elephant trumpeted loudly when the car started off again. He moved uneasily to and fro, a noisy crowd following.

The Assyrian Monarch, which was the ship originally selected for Jumbo's passage, but had to sail a month ago, leaving her principal passenger behind in a very steady sailer. The elephant-cage will occupy the main deck of the vessel, and will be stowed in the hold. The Interior, the grounds upon which it was kept all the great party speeches of the ex-Minister, though the track was able in form and delivery, nautical reforms proposed by Senator Camacho, GROVER'S first lieutenant, condemned the entire

16,358	100	38,328	100
16,400	20	38,373	20
16,405	20	38,411	20
16,515	20	38,758	20
38,050	100		
38,214	50		
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At 8 o'clock yesterday morning the officials began to pack him up. He had a plentiful breakfast at 7 to put him in good humour. Mr. J. R. Davis, the representative in this matter of Mr. Barnum and his partners, arrived about an hour afterwards. The two keepers, Newman, the American, and Scott, the Englishman, now set to work. The animal had spent the night with his forelegs hobbled to the front bars of his house. The hobbles were raised to the higher part of his legs, a surcingle was drawn over his back and secured below, and his head was fastened to the surcingle by a martingale arrangement which leaves his mouth perfectly free to eat his usual meals, but prevents him from suddenly setting back his head for violent offensive movements with his head or trunk. The frost during the previous night had roofed his wooden cage with a fine white rime, and as the ice melted the moisture penetrated through the top of the cage and covered its floor with wet. This was swept out, and at 20 minutes past 9, the gang of iron workers and carpenters being ready to close up the ends of the box, Jumbo was led out into his paddock. He stopped for a moment at the entrance of his box, stepped into it, and might have stepped through, for both ends were open, but at the word of command from his keeper, "Woa, Jumbo," he stopped short in it. The chains which were upon his front legs were then passed through the openings in the side of the box and so made fast. When he felt his four legs fastened, Jumbo knelt down and put out his trunk to Scott, as if to implore release from bondage. There was something peculiarly human in this attitude, when having voluntarily assumed a kneeling position he bowed his head to the ground. Mr. Bartlett observed this gesture as a common one in elephants when they find themselves in the presence of superior force. Jumbo soon rose again, but it was two hours before they could get his hind legs into the coils. He stopped on to the slip knots, kicked them aside, dodged them with the greatest sagacity and apparent comprehension of the whole matter; but the superior pertinacity and address of the keepers prevailed. Besides the two keepers already mentioned, four other men who are employed in the elephant house were at work. Mr. A. D. Bartlett (superintendent of the gardens), Mr. Clarence Bartlett, Mr. Colman (secretary of the Society for the Prevention of Cruelty to Animals), Mr. Talbot (its chief inspector), and Professor Pritchard, the well-known veterinary surgeon, were also present. When Jumbo found his hind legs confined by the strong chains covered with leather, he made a determined effort for freedom. He pounded at the box with the stumps of his tusks till the ivory flew away in splinters, and he swayed his huge body against the sides. He had slightly abraded the skin of his tail against a bar when first put in, but sacking had been put over the bar to prevent this from recurring. When the elephant had struggled with his chains and against the sides of his cage for five minutes, he appeared to have satisfied his sagacious mind that they were too strong for him, and from that moment remained perfectly quiet, merely putting out his trunk to Scott who stood in front of him and willingly accepting the food which was occasionally offered. The chains attached to his feet were gradually drawn tighter till each leg had only 15 inches' play.

Many visitors had collected by this time—noon—and they still continued to arrive. The ends of the box being only closed with bars, having considerable interstices between them, the animal could be seen within. At 3 or 4 the men and horses arrived from Pickfords, the well-known carriers, who have contracted to remove the elephant to the docks by road and river. Six powerful dray-horses, of the sort which Indian princes call "English elephants," were harnessed to the box, which, with its living freight of six tons, cannot weigh much less than 12 tons. The first task was to drag the box slowly up the inclined plane which had been cut to make the box level with the ground, and so avoid compelling Jumbo to step upstairs into captivity. As the horses made a movement forward every few inches gained were made good by blocking the wheels with great balks of timber placed behind. When level ground was reached, after about three-quarters of an hour, the powerful team went round quickly towards the gravel path between the elephant-house and the canal; but just in turning the corner they

came on a comparatively soft bit of gravel in a narrow way where there is only a slight bank of earth between the road (just wide enough for the car) and the sloping side of the canal. Some mischievous person in the crowd called "Woa," and the horses stopped in this awkward place. Before they could go on again the wheels sank deep in the soil. Ultimately they went down to the axle; and although jacks were now applied and the way was paved with boards, it was not till past 7, when the public were being turned out of the grounds, that the car got out of the hole. Night came on, and the work proceeded slowly by lamplight, somewhat less impeded by sightseers. Meanwhile a rough crowd had gathered at the entrance to see the car as it came out, and stood there for hours howling the wild beasts dumb. The car had travelled, leaving deep ruts, 100 yards in five hours, and was still in the grounds, the horses' heads pointed towards the road on the south side of the Regent's Canal. It was intended to travel to St. Katharine's Dock-house by Euston-road, King's-cross-road, Old-street, St. Luke's, and the Commercial-road. The night was clear and starlit, with a crescent moon in the sky and a chill wind blowing. Jumbo was protected from the keen air by tarpaulins stretched across the bars of the two ends of his box.

At 10 o'clock, the car having safely passed between two trees, the nearness of which to each other had at one time appeared to constitute an impediment to its passage, the horses were taken out and led away, and the car remained standing near the parrot-house. Some strong iron guides which had been placed on the side of the car to prevent it from tipping over were now knocked away and the address was called on to the box. It is on a square board, which bears the inscription—"Barnum, Bailey, and Hutchinson, New York, U.S.A." At about 10.15 the elephant began moving about uneasily in his box, put his trunk out, played with the straw in front, fished up one of the nosebags of the horses and afterwards threw it out on to the head of an attendant. Then, less good-humouredly, with short, quick jerks of his hind legs, he made his chains rattle again. Next he began to jog rapidly backwards and forwards, butting as he came forward against the front bars of his cage (which were free from tarpauline), and making the ponderous box move backwards and forwards with his weight. Great clouds of steam burst from his trunk into the cold night air. As he felt his strength tell he appeared to redouble his exertions—the box rattled, and its frame quivered at every blow. It seemed merely a question of time to break it. If he continued these tactics long enough nothing could resist them. One of the attendants spoke to him, and quieted him for a moment, but Jumbo began again. At length, Scott, who had been taking supper, returned; the elephant was calmed at once, and shortly afterwards had food and water. According to one of the attendants, the danger is only postponed. The Indian elephants removed some time ago only became really troublesome when they left the grounds; and broke their chains on the road. It may be added that Jumbo himself snapped like tow a four inch rope which was used in fettering him yesterday morning.

At 11.15 Jumbo began to dance again, snorted, knelt down, worried his chains with his trunk, shook his box heavily, and would certainly have broken it if he had persisted; but at the command of his keeper he became quiet again.

A number of the S Division of police are in readiness to maintain order under the direction of Mr. Harris, superintendent of the division. Arrangements for the attendance of police all along the route have been made by telegraph.

The car had been propped up with shores to prevent the weight of its powerful inmate from pushing it over. At 12.15 the horses were put to; at 10 minutes to 1 they tried to start, with 10 horses harnessed two abreast, but the wheels had sunk so deep in the earth that it was impossible to move. Jacks were now applied to lift them, and at 1 o'clock a start was fairly made. As soon, however, as the car reached the exit from the gardens, there was a stoppage owing to the car having been pulled too much to the right and caught in the bank. Here the ground was soft, and the front wheels sank again. The crowd waiting outside raised cheers for Scott, and shouted that the Yankees should never have Jumbo. At 1.25 the car was safely out of the gardens and rattling off on the road to the docks. In two or three minutes it stopped again, to go on once more in due course.

At five minutes to 2 he passed safely through Gloucester-gate, two pairs of horses having been taken off for the purpose. The car just grazed the iron of the gate, and the elephant trumpeted loudly when the car started off again. He moved uneasily to and fro, a noisy crowd following.

The Assyrian Monarch, which was the ship originally selected for Jumbo's passage, but had to sail a month ago, leaving her principal passenger behind is a very steady sailer. The elephant-cage will occupy the main hatch forward—a capacious opening, 24ft. by 11ft.—and will rest upon the lower deck, rising to the main deck nearly to the level of the upper deck. A height of 10ft. will thus be available without interfering with the covering of the hatchway, which can be battened down in case of necessity. At present the ship is in Brown's dry dock at Cubitt Town, painting, caulking, and refitting. Within a fortnight after quitting Gravesend the vessel is due at the company's wharf, Pavonia Ferry, New Jersey, where it is understood that the elephant will be landed, to be carried across to New York by one of the large ferry steamers. Jumbo's cabin is in the most comfortable part of the vessel, next the first-class saloon and nearly amidships.

100	26,050	100
50	28,214	50
20	38,205	20
10	38,287	10
100	38,308	100
20	38,373	20
10	38,431	10
20	38,738	20

Louisville, Kentucky, March 1882

Table with columns for numbers and corresponding values, likely a list of prizes or amounts.

Table titled 'APPROXIMATION PRIZES' with columns for 'No.', 'Prize', 'No.', and 'Prize'.

Forty-Second Popular Monthly Drawing of the Commonwealth Distribution Co. Friday, March 31, 1882. Includes details about the drawing and prize list.

NOTICE

Text block containing a notice or advertisement, possibly related to a business or legal matter.

THE DA

Text block containing a notice or advertisement, possibly related to a business or legal matter.

QUICK

Text block containing a notice or advertisement, possibly related to a business or legal matter.

Advertisement for 'Hormonal Acid Phosphate in Impaired Digestion' by Dr. E. C. Burnett, M.D.

Advertisement for 'SOLICITORS' and 'HOLDERS' regarding a meeting or legal action.

Advertisement for 'CRISTADORO'S HAIR DYE' and 'TWINNING OF AN EYE'.

Advertisement for 'PERSONAL AND PLEASANT' shoes, mentioning Mr. A. O. Brannin.

Advertisement for 'SOLICITORS' and 'HOLDERS' regarding a meeting or legal action.

Advertisement for 'CRISTADORO'S HAIR DYE' and 'TWINNING OF AN EYE'.

Vertical text on the right edge of the page, possibly a continuation of an advertisement or a list of items.

DISHING OUT DOCTORS.

Commencement Exercises of the Medical University of Louisville Yesterday Afternoon.

Address by Prof. David W. Yandell and Prof. E. R. Palmer in Memory of the Dead.

Sixty-four Young Gentlemen Dabbed With the Title of "Doctors of Medicine."

THE LARGEST CLASS OF THE YEAR.

The commencement exercises of the University of Louisville, which took place yesterday afternoon at Mainland's Theatre, were the largest and best conducted of the season. The addresses were well written and interesting, and the whole of the large audience remained until the procession and then left with regret.

The graduating class numbered sixty-four young men, who occupied the front seats in the gallery. The professors of the college, together with Bishop Dudley and Hon. Isaac Caldwell and Dr. Geo. W. Gillentine, of the Board of Trustees, occupied seats on the stage. The exercises opened with the well-known overture, "Tragedy and Comedy," and Bishop Dudley delivered the opening prayer, which was very short. The list of the students was then read by Dr. E. R. Palmer, Dean of the Faculty, and Hon. Isaac Caldwell conferred the diploma and a commendation of the diploma and a commendation of the president of the University of Louisville and by the authority of the Legislature of Kentucky, conferring the degrees on the following young men.

Table listing the names of the graduates: Adams, J. Foster, Theobald, G. M., ... [names listed in columns]

All the prayers of the preliminary hour in last year's program were delivered by the Rev. E. R. Palmer, Dean of the Faculty, and the Rev. E. R. Palmer, Dean of the Faculty, and the Rev. E. R. Palmer, Dean of the Faculty.

In conferring the diploma, Mr. Caldwell made only a few remarks, congratulating the graduates and wishing them success. After several addresses, "Fragments" the class oration was delivered by Dr. William C. Fincher, of Alabama. The address was very short, and was confined to a suitable, well directed address to the graduating class, and few outstanding remarks handling the faculty.

The address in memoriam of Prof. John E. Cooney was next delivered by Prof. E. R. Palmer, in his usually laconic style. The address, which was remarkably well delivered, was as follows:

Prof. PALMER'S ADDRESS. In writing tonight with the gladness which the presence of you here in the city that has been made in the person of the late and noble, and who had the honor to be my colleague in the study of the science of medicine for several years.

Prof. YARBRO'S ADDRESS. I have no doubt that you are all here to-day to receive the diploma which you have earned by the study of the science of medicine in the University of Louisville. I have no doubt that you are all here to-day to receive the diploma which you have earned by the study of the science of medicine in the University of Louisville.

Prof. Cooney's address was a eulogy on the life and work of the late Prof. John E. Cooney. He was a man of great energy and industry, and his death was a great loss to the University.

Prof. Yandell's address was a eulogy on the life and work of the late Prof. E. R. Palmer. He was a man of great energy and industry, and his death was a great loss to the University.

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from his death and bereaved party, Mrs. E. R. Palmer, who was present at the exercises, and whose presence was a great comfort to the bereaved party.

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Galloway Education and Wigtownshire Free Press 6 April 1882

Protest and the Deed of Demission, and resigning your connection with the State. You took a leading part in Galloway in the manifold labours of maintaining that conflict, and of planting and organising the congregations of the Free Church. You also shared personally and in your ministry in that outpouring of the spirit of grace which was the moving and sustaining power in that time of controversy and trial. The brethren who were with you then have all been removed by death, and for years you have been the only Disruption minister in Galloway. You have taken an open part in the controversies of your time with Christian courtesy and charity, so that even when there was in some cases, as in 1843, a breach of friendly intercourse, in every instance the breach was healed again.

You have seen several of the divisions of the Presbyterian Church of Scotland healed, have personally taken part in three Reunions, and have earnestly sought yet farther union. Your interest in the poor and in the young is well known; but only the aged know how much you have done in this district for the cause of Christian education both in the family and the school. We prize your scholarly and scientific culture, dignified and kindly courtesy, ripe wisdom and fatherly counsel, and your example of holy and godly living.

We thank the God of all grace for all His goodness to you, and to us and to others, through you in the past, and we pray Him to spare you and strengthen you in body and spirit, and to bless you more abundantly in your own heart and in your ministry until it shall please Him to receive you into His everlasting rest in glory.

Signed in name and by authority of the Free Presbytery of Stranraer this fifth day of April, 1882.—Alexander Warraek, moderator; John Jamieson, clerk.

Mr URQUHART, on rising to reply, was cordially received. He said:—My Dear Moderator and Brethren of the Presbytery,—In all your arrangements for this day, and in all your utterances, I desire to recognise only the warm expression of a brotherly kindness, which is very precious to me, and for which I feel very deeply grateful. I know that the main purpose of your meeting has been to "strengthen the things that remain" by the encouragement of your sympathy and good wishes. All the more, if I am spared, I shall welcome your meeting for inquiries which must show how much there is need for your pastoral superintendence and authority, as well as your sympathy and tender indulgence. I thank God that he led me early to appreciate the unspeakable value of the Episcopacy of an earnest Presbytery. As I have experimentally proved its value to me in the past; so to those who remain to be over me in the Lord I look with confident expectation of his blessing in their oversight, both for my days—which cannot be many—and for those who may be after me. More and more may the gracious purpose be realised by the Spirit's power through the official ministry with us, and everywhere by its fitting of all saints—old and young—into the work of the universal ministry; till, in the worship of every fireside, it shall be the climax of all the sublimities when they sing, as in the 8th psalm, "Out of the mouth of babes and sucklings hast thou ordained strength against thine enemies, that thou mightest still enemy and the avenger." My dear friends are here to unite with the Presbytery the purpose of this meeting.—As I know that I have thus the expression of your

celebrity, who was a somewhat remarkable man in his time—a king's chaplain, a leader in the Assembly, a poet, and regarding whom some quaint stories still circulate in the parish—was ordained here, and held the benefice for almost 64 years. We celebrate the 50th anniversary of Mr Urquhart's ordination to-night, and allowing for the time his ministry overlapped Dr M'Kenzie's, the encumbrance of two ministers carry us back the extraordinary period of 109 years and this is not the end, for we all hope that when another decade has passed away we may be assembled again in the same church to celebrate the completion of another fifty years ministry in the parish of Portpatrick. Mr Urquhart came to Portpatrick when the country was in the throes of the Reform Bill legislation, and many are the changes he has seen since then even in this retired spot. At that time Portpatrick was a mail packet station, and had regular communication with Donaghadee. Mr Urquhart has seen it deprived of that distinction. He has seen the old stage coach give place to the railway, which along with the electric telegraph put an end to the comparative isolation of Portpatrick, caused by the removal of the Irish traffic. He has seen the old place at the lowest ebb of its fortunes, but never even then did his belief in its future prosperity waver. (Cheers.) Still by his pen and otherwise did he strive zealously on behalf of his adopted home, and predict that when free from Government trammels and cast on its own resources Portpatrick would be herself again. (Applause.) When the bustle of the public works was over, and the population reduced, the streets deserted, and the houses crumbling into ruin, the harbour abandoned, I heard Mr Urquhart in speaking of Portpatrick say, and I think I quote almost his very words, that now that it had got rid of those miserable dribblets of Government grants he should expect it to flourish once more. There were few at the time I am sure who did not consider Mr Urquhart's view of the future rose coloured, but there are equally few now who will not think that time has proved him to be right, for, from the increasing influx of visitors every season, there seems every prospect that the mild genial atmosphere of Portpatrick, and the bracing sea breeze will one day make this remote village in Galloway one of the most favourite watering places in the west of Scotland. (Cheers.) Equally great has been the change among the people. I think I am correct in stating that the Presbytery that this day 50 years ago ordained Mr Urquhart as colleague to Mr M'Kenzie, there is not one alive now. The office bearers and elder members of the congregation that greeted their young minister so heartily in the old Churchyard of Portpatrick have long since passed from the sun shine to the sunless land, and even of those younger members, Mr Urquhart's own contemporaries, though there are still some few remaining among us, the vast majority have crossed the bourne whence no traveller returns. Sad thoughts must rise in Mr Urquhart's mind even on an occasion like this, but there will be many bright ones too of the many fine friendships that he has enjoyed in the 50 years that are gone. I cannot close without making allusion to our meeting in this place, and to the graceful act of my friend Mr Balmer, who quite unsolicited placed the spacious church at the disposal of the committee who had charge of carrying out the soiree arrangements—(cheers)—and had it not been for his kind and generous offer I do not know where we would have found a building to accommo-

nearest son... the terms of... would be dist... on... d Mr... had... com... with... this... d... more... a... rman... the battle of... career with... success, and... recollections... seized this... this... name of you... the... on the cong... patrick, to... like... which... that... you may be... new... you so high... here... Mr Urqu... Mr Chair... I beg that... may... words as... words could... sense of all... I gratefully... generous... At... the... been... not... be... good... over... hum... the very... deep... ing... all... joy... and... of d... bene... of y... perf... so... I rec... I ca... which... even... mistake... of been... all... an ex... Cath... I ha... fello... seas... testi... most... of The... very... comp... ey, to... made... the... number...ught... ferval...rch a... hers... t the... and... ind... d... we... been... ter... the... on the ground that it brought up... the Creebridge Case, and improperly as... take up... way. No doubt... got an impression that something was... thought a general statement made in a... might put that matter right. Mr AGNEW remarked that the matter had been done away with at the Accounts to some extent for the fall... The meeting then terminated.

WIGTOWN FREE CHURCH PRESBYTERY. This rev. court met in the Vestry at Tuesday—Rev. J. Inglis, Kirkcubright. There were also present—Rev. F. Whithorn (clerk); Rev. W. Strachan, Goold, Newton-Stewart; Rev. J. Th. William; Rev. J. Gorrie, Sorbie (assisted) and Rev. J. B. Reid, Wigtown. Mr. from Creebridge, and Mr. Husband, elder were also present.

After a short time spent on routine business the Presbytery took up another phase of the Creebridge Congregation case. The CLERK said that a letter had been dated Newton-Stewart, 31st March, in terms:—

"We intend to be present at the Presbytery the 6th April to respectfully crave the Presbytery records of the minute of the 29th November regarding their decision presented from members of Creebridge, and also, extracts from the Record of their meeting with the Creebridge in June last. We would take this opportunity of the Presbytery, through you, to be laid before the approaching General Assembly, regarding various grievances of which a large number of Creebridge Congregation members are complaining." (Signed) WM. M'CONNELL, JAMES G.

The CLERK said he might mention as they were all aware, that Mr M'Connell had brought forward a petition at the previous meeting, asking them virtually to go to the Assembly, and there could be to their having copies of the minutes of the case which began—that was, what appeared at the last meeting and petition. But they were not entitled to ask for minutes anywhere and everywhere a case already judged and disposed of. I have a minute that would answer the going to the Assembly, and it would be to bring out their whole case. They (the were insulted lately by the threat that not decide the matter brought before and then, the parties would appeal to Every court, civil and ecclesiastical allowed it to take matters to a vizandum court was not to be conceded and there would not decide that matter on the threats before a Sheriff would be visited retribution as being contempt of court.

Mr ARTHUR asked when did they expect the Presbytery? Mr GOULD remembered something of a threat being used, but the court was sit under the fear of any threat, but would it thought best.

On the petition referred to in the asked for, Mr M'CONNELL said that he Clerk had a copy of it.

The CLERK said the Presbytery had keep what was laid on the table, and he to produce it now.

Mr GORRIE asked Mr M'CONNELL if the old petition to stand for that day?

Mr M'CONNELL.—Yes.

Mr GORRIE said, in reply, that that been considered and decided upon by the on the ground that it brought up the Creebridge Case, and improperly as take up...

These men in the congregation are doing missionary efforts, and greater works are done. Treasurer, and compulsory officer. and Robert M'Nanney, Minister of Larrg, Clerk.

Daily News 18 June 1884 *Illustrated News 7 October 1882*

THE PRINCE OF WALES AT THE ALBERT HALL.

Owing to some strange flaw in the arrangements yesterday afternoon, the audience within the Albert Hall when the Prince of Wales was escorted across the area to the platform was singularly scanty. The three tiers of boxes, as is too often the case on such occasions, were staring and empty, but, in addition, hundreds of chairs were allowed to be vacant in the amphitheatre, while crowds of people who would have covered the nakedness of the land, had they been allowed, were relegated to the far-away gallery on the sky line. The Prince of Wales, it is needless to add, met everywhere with a right hearty welcome. He was formally received by the Duke of Buckingham, the Marquis of Hamilton, the Home Secretary, Sir P. Chuliffe-Owen, Sir Lyon Playfair, Mr. S. Morley, M.P., Mr. Birkbeck, M.P., and other gentlemen connected with the council. Upon the platform, to which his Royal Highness, accompanied by Prince Albert Victor, was conducted, sat the foreign Ministers, Lord Alcester, Lord Bury, and a number of ladies and gentlemen who had been admitted by privilege tickets. The Prince of Wales, who thus paid his first visit to the Exhibition as its President, shook hands with Musurus Pacha, M. Waddington, Mr. Russell Lowell, and other eminent members of the Corps Diplomatique; and then taking his chair, without prelude, called upon the Duke of Buckingham to open the business. As Chairman of the Executive Council, his Grace spoke in terms of high satisfaction of the enthusiasm shown by exhibitors and the public in the Exhibition, "the offspring," he added, addressing the Prince, "of your Royal Highness's mind." With reference to the juries, the noble Duke stated that this year the exhibitors have been consulted in the appointments.

Following the Duke of Buckingham came Sir James Paget, who as Vice-Chairman of the Executive delivered an inaugural address. It was a masterly essay upon *reputation*. In conclusion Sir James Paget urged that we want more ambition for renown in health. He would like to see a personal ambition for renown in health as keen as that for bravery, or for beauty, or for success in our athletic games and field-sports; as for national renown in war, or in art or commerce.

After a speech from Sir Lyon Playfair, Lord Reay presented the chairmen of juries, the foreign jurors, and the foreign commissioners to the Prince of Wales. These gentlemen were brought to the platform in batches, and presented by mention of name—quite inaudible to the audience—as they passed before the presidential table.

The Prince of Wales, in reply to these speeches, said:

Your Excellencies, ladies and gentlemen.—Owing to a very sad cause I was unable to open the Health Exhibition, but I am particularly glad to have had the opportunity of being present to preside here to-day on the occasion of the assembly of the international juries. It has given me great pleasure to have made the personal acquaintance of all those distinguished gentlemen who have come from the Continent, and who have so kindly, and no doubt at considerable inconvenience to themselves, consented to visit us to decide on matters appertaining to the Health Exhibition. It is especially gratifying to me to have been here to receive them, and I sincerely hope that their labours will be crowned with success. That the Exhibition has up to the present time been successful, as far as numbers are concerned, we have evidence to show; but I hope at the same time that for scientific and educational purposes the public at large may derive even greater benefits from it than from the mere pleasure of the Exhibition as a means of recreation. After the address from the Duke of Buckingham, and the long, able, and most interesting one

NOTES ABOUT DEER AND DEER FORESTS.

The vacations of the last twenty years have been spent by me in some of the best known Highland deer forests. During that period whilst wandering amongst those grand old hills in pursuit of the noble animal which has made them its home, incidents have occurred to me and ideas have suggested themselves which, if described as they were then seen and felt, could scarcely fail to interest others as they interested me. The story I shall have to tell will, very probably, be regarded by old deer stalkers as the very alphabet of their game, but there are others—and they are the vast majority—who know little on the subject, but, being anxious to know more, will not, I hope, be disappointed in reading what I propose to say. And first in reference to a forest. Those whose notion of its character is derived from what they have heard of the forests of North or South America or of India, nay, even from the story of William Rufus, killed by the arrow glancing from a tree in the New Forest, will scarcely credit that the absence of trees is an essential feature of a Highland deer forest. The mountain ranges, which extend from Perth and Argyle shires in the south to Sutherland and Caithness-shires in the north, through Aberdeen, Inverness, and the smaller shires, may be said to be more or less a continuous forest. These mountains vary in height from 500 to nearly 5,000 feet above the sea level, and on none of them will even the Scotch fir, the hardiest of the forest trees, be found growing at a height exceeding 1,500 feet. The hills above this level are bare of trees, and the only vegetation on them is coarse grass, moss lichen, stunted heather, rushes, and the like, which supply the deer with scanty sustenance. Yet it is deserving of notice that the roots of immense firs are found buried several feet beneath the peat at an elevation far above the present range of tree vegetation, facts which show that the climate of the country must at one period have been much warmer than it is now. Trees grew then on mountain tops, when the elephant, the rhinoceros, and other animals in the present period tropical lived on the plains below, and the mountains were then forests in the ordinary acceptation of the term. The bases of the hills are now often covered by extensive pine woods. The best forests are those in which the hills are lofty, the glens or corries deep, and the woods extensive. The deer are drawn to and dwell in those places where they are likely to find food and shelter during the severe winter weather.

Reverend the immediate object of which the deer stalker is in



museum at Glasgow, peat moss, on 14—in all 32. and the chara The stalking season the remote and on the lower part of August, and when the animal their being kill in small herds, during the winter times pressed by hand. In the antlers, and in from which the sometimes still in the interval, months, and feeling which is that, having seen a calf, I was after when peat killed to see the searching for its painful picture called the picture snow, its tracks seeking, but in it. These facts and loving expression beautiful eyes of wounded a stag, of hundred yards footsteps, he turning, but, seeing to one of force from the ground. Again, having we paralysed. He succeeded in giving blood to flow. The expression which should make of expression change, glance which the left on the sur spoken language. The like has his poem "Pygmalion" See Last

He who has seen starting from the say that love and animal. Of the hearing in the deer of endurance, I a stalking and its as subject of sheep v another paper.



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THE PRINCE OF WALES AT THE ALBERT HALL.

Owing to some strange flow in the arrangements... The Prince of Wales, it is needless to add, went everywhere with a right heavy valise...

Following the Duke of Buckingham... The Duke of Buckingham... The Prince of Wales, who thus paid his first visit to the Exhibition as its President...

On the subject of his own self a man may be deemed... The Prince of Wales... The Duke of Buckingham...

Calculating on the basis of reference, to which his audience were referred... The Prince of Wales... The Duke of Buckingham...

The mortality of children under 15 in 1911 was nearly a quarter of a million... The Prince of Wales... The Duke of Buckingham...

After a speech from Sir Lyon Playfair, Lord Bury presented the chairman of juries... The Prince of Wales... The Duke of Buckingham...

The Prince of Wales in reply to the President... The Prince of Wales... The Duke of Buckingham...

NOTES ABOUT DEER AND DEER FORESTS.

The conditions of the last twenty years have been good by no means... The deer forests... The Duke of Devonshire...

Beyond the immediate object of which the deer-stalker is in pursuit... The deer forests... The Duke of Devonshire...

Having then spoken of forests, it will be well before speaking of deer-stalking... The deer forests... The Duke of Devonshire...

It is in the country people are more or less acquainted with... The deer forests... The Duke of Devonshire...

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Stamford News 14 October 1882

NOTES ABOUT DEER AND DEER FORESTS.

In continuation of the notes on these subjects, I may next speak of the extreme acuteness of the senses of the deer, especially when they are at all suspicious of danger. It is questioned whether a deer can see an object at a greater distance than a man with good sight can; but, without question, the deer takes in a wider field, and discovers a strange object, especially if in motion, much more quickly than a man is able to. The sight of deer may be dazzled by bright sunshine, and his watchfulness when on the hill is generally directed downwards, points which are taken advantage of by the stalker. The deer recognises quickly the disturbed movements of other deer at a great distance and will move with them. The quick movement of a mountain hare or of a roe deer will start him directly. Hence the difficulty of approaching the deer on ground over which he can see, and hence, too, the necessity for crawling and sneaking and such like cautious proceedings. The hearing of the deer is marvellously acute. But a very short time before writing these lines the click of the rifle when being put on cock lost me, at a hundred yards, a chance of a very fine head. The noise caused by a boot striking against a stone, or the breaking a withered branch, has often given vexatious disappointment to the stalker. These things may be avoided; not so the disturbance which grouse, ptarmigan or other birds suddenly rising can produce. The sense of smell, however, is the sense on which the deer especially rely. It is generally admitted that a deer can discover a man by scent at the distance of a mile or more, if there be but a gentle movement of the air from the man to the beast. Under circumstances favourable for the deer, there would be risk of passing to the windward of him even at a greater distance than a mile. On one occasion I remember sitting on a flat moor or moss in Loch Luichart Forest, with two very intelligent foresters, watching deer on a hill. A couple of stags were seen descending towards a loch, and, as they were about to cross the wind, blowing briskly from us over the flat, the foresters anxiously watched them. The moment they came on our line they halted, sniffed the air for an instant, and went off at full speed. The men said that the distance from where we were sitting concealed to where the animals stopped was two miles. It certainly was not much less. Over broken ground and in calm weather the deer lose their advantage to some extent, as the scent is not carried so directly. The stalker has to contend, as I have already said, with the acuteness of the senses of hearing and seeing in the deer, but it is the sense of smell, as just mentioned, which gives him so much trouble. When the forester sees deer, his first thought is to the wind, for on its direction his movements must depend. The wind is shifty on mountains, and in carries it blows in



an anxious, busy life in cities, that they alone who have experienced the feeling which these scenes create can realise the health-giving pleasure they afford. When arrived at the place of meeting the stalker generally leaves the horse, and he hears from the forester the course which it is proposed to follow. There are deer in one place and in another place, and there are reasons sufficient why the one should be taken and the other left. The deer are better, and in a better situation, though it may take a longer time to reach them. The party then proceeds, the principal forester leading, the sportsman next, the second forester, if there be one, following, and then the gilly boy. The proceeding may appear to be a very simple one. The deer are but a mile or two distant on the hill, which to look over is fair and accessible enough. The novice, however, will soon discover that he has to surmount many of the difficulties above mentioned, and which I need not here repeat. After an hour or two or three or more spent in getting over the ground, the stalker finds himself within reach of the deer—and then commences his difficulty. The forester hands him the rifle, they estimate the distance, which may be from fifty to a hundred and fifty yards more or less. He must be calm and steady, not allowing a movement to be seen; and although he is intensely excited and nervous he must take steadily aim and fire. The work of hours is brought to a close in an instant; if successfully all is well, but if not let it be! The forester has done his duty, the sportsman has failed; it will not attempt to analyse the feelings of each party at such a moment. It is, however, never too late to mend. The deer shot at, if not much disturbed, may be followed, or fresh deer may be seen, and the stalk commenced again and carried on, and with success, a stag falling to a shot. And here it may be mentioned that no two stalks of the shooters are ever alike. The varieties in the position of the deer, of ground, and of the currents of the wind is endless. An intelligent forester told me very recently that, after forty years of stalking, he never went out even now without learning something new. As a class, these foresters do their work well. Many of them have been born on the spot; they know the ground; they know the habits of the deer, even many of the individual beasts, which they recognise from year to year. They are very reticent, and if asked a question for the sake of information, are given to suspect that there is a doubt hidden in the inquiry, and to become irritable. They expect implicit obedience to the directions which they give as regards stooping, crawling, &c., and it is well to render it. This, however, is not always possible. I heard not long since of a gentleman who was told when close to the deer that in following the stalker he must keep his body quite flat and his nose to the ground. All went well for a moment or two when the forester, seeing the deer looking disturbed, turned and beheld his sportsman with his nose and body on the ground, certainly, but his legs were in the air, and his feet performing the movements of a *valse à deux temps*, the result of involuntary excitement. Returning from this digression to the wounded deer, the next step is the insertion by the forester of his knife at the root of the neck and the division of the large blood vessels, which allows the free flow of blood. When the animal is dead the belly is laid open, and the stomach and intestines are removed. The process is named "gralloching," and the forester is entitled to the fat and to the tripe, which he calls the gralloch. A signal is then made for the deer pony to be brought forward for the deer. This may or may not finish the day, for under favourable circumstances the stalker may get other chances, and kill several beasts. At night the deer are brought up to the lodge, and rejoicings over successes are not unusual. The best heads are preserved for the decoration of halls and ante-chambers on the same principle as the Indian preserves and decorates his wigwam with the scalps of the victims he slays in war.

In the next paper I may have to speak of following and waiting for deer, of wounded deer, of deer driving, of the extent and value of forests, and of deer versus sheep.

RICHARD QUAIN.

NOTES ABOUT DEER AND DEER FORESTS.

In continuation of the notes on these subjects, I may next speak of the extreme acuteness of the senses of the deer, especially when they are at all suspicious of danger. It is questioned whether a deer can see an object at a greater distance than a man with good sight can; but, without question, the deer takes in a wider field, and discovers a strange object, especially if in motion, much more quickly than a man is able to. The sight of deer may be dazzled by bright sunshine, and his watchfulness when on the hill is generally directed downwards, points which are taken advantage of by the stalker. The deer recognises quickly the disturbed movements of other deer at a great distance and will move with them. The quick movement of a mountain hare or of a roe deer will start him directly. Hence the difficulty of approaching the deer on ground over which he can see, and hence, too, the necessity for crawling and shaking and such like cautious proceedings. The hearing of the deer is nervously acute. But a very short time before writing these lines the click of the rifle when being put on cock last me, at a hundred yards, a chance of a very fine head. The noise caused by a hot striking against a stone, or the breaking of a withered branch, has often given vexatious disappointment to the stalker. These things may be avoided; not so the disturbance which grouse, ptarmigan or other birds suddenly rising can produce. The sense of smell, however, is the sense on which the deer especially relies. It is generally admitted that a deer can discover a man by scent at the distance of a mile or more, if there be but a gentle movement of the air from the man to the beast. Under circumstances favourable for the deer, there would be risk of passing to the windward of him even at a greater distance than a mile. On one occasion I remember sitting on a flat moor or moss in Loch Luchart Forest, with two very intelligent foresters, watching deer on a hill. A couple of stags were seen descending towards a loch, and, as they were about to cross the wind, blowing briskly from us over the flat, the foresters anxiously watched them. The moment they came on our line they halted, sniffed the air for an instant, and went off at full speed. The men said that the distance from where we were sitting concealed to where the animals stopped was two miles. It certainly was not much less. Over broken ground and in calm weather the deer lose their advantage to some extent, as the scent is not carried so directly. The stalker has to contend, as I have already said, with the acuteness of the senses of hearing and seeing in the deer, but it is the sense of smell, as just mentioned, which gives him so much trouble. When the forester sees deer, his first thought is to the wind, for on its direction his movements must depend. The wind is shifty on mountains, and in carries it blows in eddies, so that the sportsman may often watch with interest the struggle of the clever forester "to dodge the wind." It is in overcoming these difficulties that the real excitement of deer-stalking consists. Having said thus much about red deer, about their habits and the causes which render them so difficult of approach, something may now be said about the deer-stalker himself. Of this class there are as many grades as there are of sportsmen in other fields. There is, for example, the true lover of sport, who delights in killing a good deer in a difficult place after a long and difficult stalk, and there is the *passé* sportsman who, for the sake of fashion or of health it may be, potters about the woods or on the flats, who fires at deer which are subsequently "finished off" by a shot from the attendant stalker. Between these characteristic extremes there are many varieties, which the imagination will readily recognise and figure for itself.

The deer stalker, the real lover of sport, must be willing and able to endure a good deal of hard work and exposure. He will probably spend from eight to twelve hours on the hills each day. During the greater part of one day he may be in active motion, during the greater part of the next he may be sitting or lying as the case may be. The weather may be cold or wet or stormy, or it may be close and oppressive. Whilst in motion he may have to climb steep ascents or to run down sharp declivities. He may have to wade through bogs or burns; he may have to struggle through long heather, or through juniper or other bushes. He may have to leap from boulder to boulder, some of which being loose, he risks the chance of a dislocated ankle if not worse. When sitting or lying he may be shivering with cold, or in sultry weather when fixed in a cramped position he may be teased by gnats and midges, when he must not move a muscle lest he should be seen by the deer. These varied conditions imply the exercise of a great amount of patience and perseverance, which receive their reward, it may be said, in a renewal of health and strength, such as no other sport save this, the noblest of all British sports, can give. The deer-stalker should be simple in his equipment, not carrying an ounce of unnecessary weight. His clothes of tweed waterproofed may be of a heather or shepherd's plaid pattern, but they must be neither light-coloured nor dark. His cap of like material should be provided with a fold at the back of the head, which will button on the collar of the coat when turned up, it is an excellent protection against the heat of the sun or against wet and cold. Boots should not be made too heavy, and, as a suggestion worth remembering, they will be preserved soft and comfortable for the feet if well greased before they are dried after use. A waterproof cloak, light and long, of the so-called siphonia material, if thrown over the head and shoulders, will form a sort of *trappe d'acier* for the stalker when waiting in heavy rain for deer. It is needless to discuss the merits of the rifles made by different makers. An Express or an ordinary rifle, by a maker of good repute, cannot fail to fulfil its requirements if only held in a proper position. It is the practice to use double-barrelled rifles; but had I to begin deer-stalking anew I should provide myself with a pair of single-barrelled rifles—those which throw out the cartridges being preferable. Such a weapon is light, handy, and all-sufficient. A good binocular glass is always an acquisition on the hill. A novice should study distances, especially up and down hill shooting, when an opportunity offers.

A forest is divided into a number of beats in proportion to its extent. Each stalker is limited to the beat assigned to him, which is rarely less than five to ten miles in extent each way. In large and well appointed forests, such, for example, as those of the Earl of Stamford and Warrington in Gloucestershire and Abernethy, and where I have learned much of what I have here to say, each stalker is provided with a pony, which will take him to the place assigned, and there he will meet a boy to take charge of it. At this point he will find a forester or two and a gilly boy with a basket. He will also find a hill pony for bringing down the deer, and a horse and cart if the beat be remote from the lodge. I know nothing more delightful than this morning ride to meet the foresters in some remote glen. It may be in the early days of October when the sun is often bright or the sky cloudless and the hearth frost sparkles on the foliage. The track may lie for miles through woods of deep green fir trees, or through groves of birch—the leaves, touched by early frost, hanging overhead, when moved by a gentle wind, closely resembling showers of gold. The lofty mountains and the silent lochs are in his view as the rider goes along. The atmosphere is so clear, the air is so refreshing, and the calmness and quiet afford such a contrast for those who lead

an anxious, busy life in cities, that they alone who have experienced the feeling which these scenes create can realise the health-giving pleasure they afford. When arrived at the place of meeting the stalker generally leaves the horse, and he hears from the forester the course which it is proposed to follow. There are deer in one place and in another place, and there are reasons sufficient why the one should be taken and the other left. The deer are better, and in a better situation, though it may take a longer time to reach them. The party then proceeds, the principal forester leading, the sportsman next, the second forester, if there be one, following, and then the gilly boy. The proceeding may appear to be a very simple one. The deer are but a mile or two distant on the hill, which to look over is fair and accessible enough. The novice, however, will soon discover that he has to surmount many of the difficulties above mentioned, and which I need not here repeat. After an hour or two or three or more spent in getting over the ground, the stalker finds himself within reach of the deer—and then commences his difficulty. The forester hands him the rifle, they estimate the distance, which may be from fifty to a hundred and fifty yards more or less. He must be calm and steady, not allowing a movement to be seen; and although he is intensely excited and nervous he must take steady aim and fire. The work of hours is brought to a close in an instant; if successfully all is well, but if not let it be! The forester has done his duty, the sportsman has failed, it will not attempt to analyse the feelings of each party at such a moment. It is, however, never too late to mend. The deer shot at, if not much disturbed, may be followed, or fresh deer may be seen, and the stalk commenced again and carried on, and with success, a stag falling to a shot. And here it may be mentioned that no two stalks of the shooters are ever alike. The varieties in the position of the deer, of ground, and of the currents of the wind is endless. An intelligent forester told me very recently that, after forty years of stalking, he never went out even now without learning something new. As a class, these foresters do their work well. Many of them have been born on the spot; they know the ground; they know the habits of the deer, even many of the individual beasts, which they recognise from year to year. They are very reticent, and if asked a question for the sake of information, are given to suspect that there is a double hidden in the inquiry, and to become irritable. They expect implicit obedience to the directions which they give as regards stooping, crawling, &c., and it is well to render it. This, however, is not always possible. I heard not long since of a gentleman who was told when close to the deer that in following the stalker he must keep his body quite flat and his nose to the ground. All went well for a moment or two when the forester, seeing the deer looking disturbed, turned and beheld his sportsman with his nose and body on the ground, certainly, but his legs were in the air, and his feet performing the movements of a *cul de chat*, the result of involuntary excitement. Returning from this digression to the wounded deer, the next step is the insertion by the forester of his knife at the root of the neck and the division of the large blood vessels, which allows the free flow of blood. When the animal is dead the belly is laid open, and the stomach and intestines removed. The process is named "gralloching," and the forester is entitled to the fat and to the tripe, which he calls the gralloch. A signal is then made for the deer pony to be brought forward for the deer. This may or may not finish the day, for under favourable circumstances the stalker may get other chances, and kill several beasts. At night the deer are brought up to the lodge, and rejoicings over successes are not unusual. The best heads are preserved for the decoration of halls and ante-chambers on the same principle as the Indian preserves and decorates his wigwam with the scalps of the victims he slays in war.

In the next paper I may have to speak of following and waiting for deer, of wounded deer, of deer driving, of the extent and value of forests, and of deer versus sheep.

RICHARD QUAIN.

(THROUGH REUTER'S AGENCY.)

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It is necessary, therefore, to recruit the non-commissioned officers from among Bosnians, Albanians, and Bulgarians, or to recall the non-commissioned officers of the former army to their duties, selecting the most capable and the least compromised.

Next comes the difficulty of giving the army able leaders. These cannot be found in Egypt in sufficient numbers. I therefore recommend in the most emphatic manner the engagement, with the consent of her Majesty the Queen, of a certain number of British officers. At the same time the employment of British officers exclusively would be a heavy burden to the Egyptian budget, and it would also seem an act of distrust towards the faithful Egyptian officer.

I propose, then, that the personnel of the superior officers should be composed of an equal number of British and Egyptian officers, one-half of the battalions, batteries, &c., being under the command of English and one-half commanded by Egyptian officers.

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NOTES ABOUT DEER AND DEER FORESTS.

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Waiting is had recourse to in watching for deer passing, it may be to their pasture, or still more often when deer are driven through passes. Driving deer is a practice not greatly loved by sportsmen. When it has been arranged to drive a forest, or part of a forest, gillies are sent in sufficient numbers to the outskirts, and they simply drive the deer to the station where the shooters are concealed. The animals are often fully conscious of their danger, and it is almost painfully interesting to observe the watchful, timid fashion in which they come forward, scanning eagerly the ground before them. Sometimes, however, they take a course far away from the seat of ambush, and sometimes, especially in woods, they break back and escape in spite of the exertion of the beaters. Small forests are rarely driven, as the deer would be simply driven out from them. In large forests, especially towards the end of the season, a deer drive can do little harm, and the sight is one which gratifies those who cannot stalk. This is very different from that abuse of deer driving which has recently grown up, but happily only to a limited extent. In such a case an army of gillies drive the deer from a vast extent of forest towards a point where a battery of breechloaders await them. It is said that the stags have fallen by the dozen in a single drive of this kind, and that such drives are repeated more or less frequently. To kill deer in this way is to convert a deer forest into a shambles and a sportsman into a butcher. Let us hope that these practices, if they do exist at all, will be stopped by the force of public opinion, which has already been strongly expressed on the subject.

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Next comes the difficulty of giving the army able leaders. These cannot be found in Egypt in sufficient numbers. I therefore recommend in the most emphatic manner the engagement, with the consent of her Majesty the Queen, of a certain number of British officers. At the same time the employment of British officers exclusively would be a heavy burden to the Egyptian budget, and it would also seem an act of distrust towards the faithful Egyptian officer.

I propose, then, that the *personnel* of the superior officers should be composed of an equal number of British and Egyptian officers, one-half of the battalions, batteries, &c., being under the command of English and one-half commanded by Egyptian officers.

All the Egyptian officers, from the rank of captain downward, should be selected from among the Egyptians, Albanians, and others already in the Khedive's service.

For those regiments and batteries with superior British officers, I propose the introduction of a system which in the Indian army has given such excellent results, viz., each battalion of infantry should have a colonel, a lieutenant colonel, an adjutant, and two other officers, all Englishmen, the rest of the officers being Egyptians. This system would also apply to the cavalry; but the field batteries would only have three British officers. Each military hospital and the commissariat department would have native officers.

The new army should be composed of twelve battalions of infantry of 500 men each, one cavalry regiment of 500 men, two batteries of mounted infantry of 500 men each, horse and field artillery of six batteries of four guns each served by 100 men, two battalions of garrison artillery with 500 men, one company of engineers of 100 men, two regiments of gendarmerie of 700 men each, and 300 men attached to the commissariat, &c.; total number, 10,900. The staff to be composed of an equal number of English and Egyptian officers.

I am quite convinced that the expense for the maintenance of this army will not exceed £E368,000 annually, the sum fixed by the Law of Liquidation.

The gendarmerie requires a separate organisation. This force should be under the command of native officers, but there should be two English inspectors. The two regiments of gendarmerie should be quartered, one in Upper and the other in Lower Egypt. Each regiment should consist of seven companies, distributed among the chief towns, the strength of each detachment being settled according to local requirements. Each provincial governor would have the company located in his own province at his free disposal, but the duties of administration and inspection would belong to the Ministry of War. The gendarmerie would not do ordinary police duty, but would form a small, well-organised force, permanently at the disposal of the governors, for the maintenance of order and public security. These regiments might, at a future period, be recruited from among the retired Egyptian soldiers.

I propose to leave the reorganisation of the police to the well-known energy of the Minister of the Interior. The length of service in the army cannot be fixed until the proportions of the

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Morning Post 31 Oct 1882

Times 11 December 1882

they will come within reach of a shot or not. Nine out of ten is not. Once I was sitting on a mountain side looking at a herd of deer in the middle of a wide, flat moss at the base of the hill. As they could not be approached, the forester proposed sending a gillie to move them. He did so. There were three passes up the hill, one about half a mile from us, one between three and four hundred yards away, and another much nearer. The deer took the middle pass. The case seemed hopeless. In the herd there was a splendid stag. As he was going up hill the forester begged me to fire at him. "It is a grand chance," he said. Hopelessly sitting down, I took a rest on my knee, fired, and hit the animal in the shoulder. This was accomplished almost as much to my own surprise as it was to that of the unlucky stag. The measured distance proved to be 350 yards, and so we agreed that the move in this instance was a very lucky one.

Deer on a flat moss are sometimes approached in another fashion. Accustomed to see horses and carts going about without bringing them harm, they do not regard their passing near them. If a cart be at hand it is driven towards the deer—the stalker walks close behind it, and when within shot of the deer he stops and fires.

In shooting at deer a steady shot will rarely miss his aim if within one hundred and fifty yards, but even the best shots miss sometimes, and they do not always succeed in hitting the animal behind the shoulder. A shot striking the head or the neck is equally fatal; but animals wounded in other parts of the body, even through the abdomen, will go away except some important organ or part is seriously injured. It is painful to feel that animals thus injured often suffer severely. A wounded stag immediately leaves the herd, and with wonderful sagacity, if he cannot go far away, contrives to hide himself under cover from his pursuers. If able to go far, he retires into the depth of the forest, and there, solitary and alone, he either dies or slowly recovers. Grievous, not always fatal, wounds are inflicted when random shots, from express rifles are fired amongst retiring or driven herds. The practice adds to the number of the slain, which by some is deemed a measure of their sport, but there is in it none of the healthful pleasurable excitement afforded by the genuine pursuit of stalking.

Of course efforts are always made to find the wounded animals. This is best accomplished by the aid of dogs, but in some forests a desire to avoid disturbing the deer forbids their use. When used, the animals are generally those of the collie species, which are wonderfully clever and successful in tracking. One of the best dogs for the purpose I have ever seen was a cross between a deerhound and a retriever. He was a short, shaggy, stoutly-built animal with a head and front like a miniature lion; he had no tail, and his eyes had white or colourless patches on the iris. His name was Bob; his appearance was singularly ugly, but he was good. Dogs are sometimes held by a line when tracking, but more often they are loosened and allowed to follow the deer. Such a chase, when it can be seen, is very striking. On one occasion a stag wounded left the hill as usual, and fled across a wide moss at its foot. It was possible to see the noble animal galloping along, occasionally throwing back its head to prevent its antlers striking the branches of the trees when it passed through a thicket. At a distance of three or four hundred yards was Bob, his nose to the ground—his body almost hidden by the heather, rushes, &c.—coursing at full speed with unerring accuracy after his quarry, the dog always gaining ground. Following as best we could, we came to where we found the stag and the dog. The stag, tired but not exhausted, was lying down with head erect, and Bob, a yard or two in front, keeping guard over his prisoner, turning his head to every point of the compass, baying or barking loudly, telling his master where he was, and calling on him to come to his relief. The stag, seeing us, rose, got into a deep rocky burn, and disappeared.

CHAMBERS OF COMMERCE AND PARLIAMENTARY LOANS STAFF
The following extract is taken from the letter of an Indian correspondent:—

"The physical and mental deterioration of our civil servants under the system of open competition is at last beginning to awaken official alarm. Mr. Grant-Duff, who has ever been a consistent supporter of the system, has had his eyes opened very wide indeed by some of the results of it in the Madras Presidency. Here, in Bombay, the collapse of the system is complete. Since the institution of competition, out of the hundred odd civilians appointed to this Presidency nine have died and two were forced to retire on account of physical debility; ten more were considered quite unfit for their work on account of their bodily weakness; two others were dismissed for inability to ride and uncouth manners; and eight have positively become insane. It is this symptom which is creating almost a panic here, especially as these cases of insanity are nearly all crowded into the last few years, during which the standard of examination has been raised, as is necessary under the competitive system, to the highest pitch. The most anxious scrutiny is now made of each new batch of young civilians as landed, and their physical and mental condition is at once reported to Government. This is a pretty state of things to be reduced to as regards the ruling class of India. It is now accepted as a matter of course by the Indian Governments that a young civilian should go mad at any moment. Imagine the government of a country like India being administered in half-a-dozen and more distant districts by mad civil servants. These facts are notorious, and in reality more numerous than even the local Governments themselves are aware. Only the worst cases, that cannot be hid, are reported at head-quarters; but, in fact, cases of aggravated eccentricity, intolerable manners, unreasonableness, and a sort of half-and-half imbecility, all to be traced to this mad 'fad' of cramming, are to be met with every day now in the ranks of the once proud Indian Civil Service which in spite of the brilliant names of the early days of competition that adorn it, is now every year falling lower and lower in popular estimation."

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The following extract is taken from the letter of an Indian correspondent:—

"The physical and mental deterioration of our civil servants under the system of open competition is at last beginning to awaken official alarm. Mr. Grant-Duff, who has ever been a consistent supporter of the system, has had his eyes opened very wide indeed by some of the results of it in the Madras Presidency. Here, in Bombay, the collapse of the system is complete. Since the institution of competition, out of the hundred odd civilians appointed to this Presidency nine have died and two were forced to retire on account of physical debility; ten more were considered quite unfit for their work on account of their bodily weakness; two others were dismissed for inability to ride and uncouth manners; and eight have positively become insane. It is this symptom which is creating almost a panic here, especially as these cases of insanity are nearly all crowded into the last few years, during which the standard of examination has been raised, as is necessary under the competitive system, to the highest pitch. The most anxious scrutiny is now made of each new batch of young civilians as landed, and their physical and mental condition is at once reported to Government. This is a pretty state of things to be reduced to as regards the ruling class of India. It is now accepted as a matter of course by the Indian Governments that a young civilian should go mad at any moment. Imagine the government of a country like India being administered in half-a-dozen and more distant districts by mad civil servants. These facts are notorious, and in reality more numerous than even the local Governments themselves are aware. Only the worst cases, that cannot be hid, are reported at head-quarters; but, in fact, cases of aggravated eccentricity, intolerable manners, unreasonableness, and a sort of half-and-half imbecility, all to be traced to this mad 'fad' of cramming, are to be met with every day now in the ranks of the once proud Indian Civil Service which in spite of the brilliant names of the early days of competition that adorn it, is now every year falling lower and lower in popular estimation."



On board the garrison for the purpose of recruiting the strength of the garrison in India before their despatch to Egypt. This is the first infantry battalion which has returned from the war. Among the officers who returned in the Caspian was General Gooch, R.A., who left at once for Dover. The Caspian full force of Tuesday's gale, the sea breaking right over her. Six out of the 68 horses on board died on passage. The ship had to proceed under easy steam, the rate of five knots an hour. Six other companies of the Highlanders, or about 600 men, have yet to arrive, four companies proceeding in the Olympus and two in the Aescalon. The Rollvax, transport, bringing the Royal Marine Artillery, was passed by the Caspian four days out at the commencement of the storm. An enthusiastic reception was yesterday afternoon accorded to the 72d Regiment (the Gordons Highlanders) reaching Cove. The local volunteers formed a guard of honour, and the town was profusely decorated. Trumpeters from all parts of the island. On the regiment reaching the town-hall of the Local Board (Courtiers) presented an address, congratulating officers and men upon their safe return, and praising the gallantry for their courage at Tel-el-Kebir. The commanding officer having replied, the regiment marched to Park Barracks, a great crowd following them. Last evening a detachment of the mounted militia returned to Aldershot from Egypt, and the members comprising it were most hospitably entertained by the comrades. Several of the Army Reserve have left the camp en route for their respective headquarters, where they will be dispersed to their homes. During the past two days four of the sick which returned from Egypt recently died at the garrison hospital. Their names are Wilson, 4th D. Gordon, 3d Hussars; Hanson and Breeden, Royal Engineers; a portion of the Indian troops selected to visit England before returning home are on their way in the Lusitania. One of the Orient line, which left Alexandria on Friday last for Portsmouth. They consist of 13 native officers, 19 of the men, with one follower, and they are expected to arrive about the 10th of November. Colonel Tennant is coming home in charge of them. The Lusitania has a large number of other troops returning from the war, including the 1st Battalion of the Royal Irish Fusiliers (21 officers and 720 men), 10 officers of the Foot Guards, seven officers and 21 men of various regiments. Several transports are on the homeward journey, and are expected. The Torvis has brought the guns and equipments of the 2d Battalion of the Coldstream Guards, Egypt, the 1st Battalion of the Coldstream Guards, and the 1st and 2d Grenadier Companies, for which she called at Gibraltar. Liban and the Osprey are also expected to reach Woolwich this week. On the arrival of the 2d Battalion of the regiment in the Egyptian Barracks for Windsor. As at present arranged, the Coldstream will only be stationed Windsor for about four months.

they will come within reach of a shot or not. Nine out of ten times not. Once I was sitting on a mountain side looking at a herd of deer in the middle of a wide, fat meadow at the base of the hill. As they could not be approached, the forester proposed sending a gliss to move them. He did so. There were three pieces up the hill, one about half a mile from us, one between three and four hundred yards away, and another much nearer. The deer took the middle piece. The deer seemed boundless. In the herd there was a splendid stag. As he was going up the hill the forester begged me to fire at him. "It is a grand chance," he said. "Hopefully sitting down, I took a rest on my knee, fired, and hit the animal in the shoulder. This was so complicated almost as much to my own surprise as it was to that of the stately stag. The measured distance proved to be 300 yards, and so we agreed that the more in this instance was a very lucky one.

Deer on a fat meadow are sometimes approached in another fashion. Accompanied by some horses and carts going about without bringing them harm, they do not regard the passing near them. If a cart be at hand it drives towards the deer—the stalker walks close behind it, and when within shot of the deer he steps and fires. In shooting at deer a steady shot will rarely miss his aim if within one hundred and fifty yards, but even the best shot is not so sometimes, and they do not always succeed in hitting the animal behind the shoulder. A shot striking the head or the neck is equally fatal; but animals wounded in other parts of the body, even through the abdomen, will go away except some important organ or part is seriously injured. It is painful to find that animals thus injured often suffer severely. A wounded stag immediately leaves the herd, and with wonderful sagacity, if he cannot go far away, contrives to hide himself under cover from his pursuers. If able to go far, he returns into the depths of the forest, and there solitary and alone, he either dies or slowly recovers. Grievous, not always fatal, wounds are inflicted when random shots, from excess of zeal, are fired amongst retreating or driven herds. The practice adds to the number of the slain, which, by some, is deemed a measure of their sport, but there is in it one of the healthful, pleasurable excitement afforded by the genuine pursuit of staiding.

Of course efforts are always made to find the wounded animal. This is best accomplished by the aid of dogs, but in some forests a desire to avoid disturbing the deer forbids their use. When used, the animals are generally those of the collie species, which are readily driven and accurate in tracking. One of the best dogs for the purpose I have ever seen was a cross between a deerhound and a retriever. He was a short, shaggy, sturdy-built animal with a head and front like a mountain lion, he had no tail, and his eyes had white or colorless patches on the iris. His name was Bob; his appearance was singularly ugly, but he was good. Dogs are sometimes held by a line when tracking, but more often they are loosed and allowed to follow the deer. Such a dog, when it can be seen, is very useful. On one occasion a stag wounded left the hill as usual, and fled across a wide meadow at its foot. It was possible to see the noble animal galloping along, occasionally throwing back his head to prevent the arrows striking the branches of the trees when it passed through a thicket. At a distance of three or four hundred yards was Bob, his nose to the ground—his body almost hidden by the bushes, reeds, &c.—concealing at first, speed with accurate accuracy after his quarry, the dog always passing ground. Following as best we could, we came to where we found the stag and the dog. The stag, tired but not exhausted, was lying down, with head erect, and Bob, a yard or two in front, keeping guard over his prisoner, turning his head to every point of the compass, baying or barking loudly, telling his master where he was, and calling on him to come to his relief. The stag, seeing us, rose, got into a deep, rocky lair, where he stumbled and fell. Bob immediately jumped on his back, seized him by the ribs, and held the animal's head under water until he was drowned. We found the stag wounded in a curious way—the ball had entered the fleshy part of one shoulder, passed thus between the breast bone and the skin, entered the opposite shoulder, and passed through. There were thus six wounds, though some were serious. I heard of an officer wounded in the Crimea, but in this instance the ball lodged in the second shoulder, and there were only five wounds. On another occasion, from the opposite face of the same hill, I witnessed the pursuit of a deer, but in this instance through water by the same dog. At the entrance of Glen Enoch there is a loch some two or more miles in circumference level by nature for the beauty of its surroundings, consisting partly of a green, rough, and rocky hill, and partly of pine woods, extending to the very edge of the water. Towards the centre is a small island, on which are some ancient and picturesque ruins, giving a name to the lake—the Loch an Enoch. A wounded stag left the hill and followed by the dog. Almost certain that he had taken to the loch, we followed to its margin. The scene was very remarkable. The surface of the beautiful lake was smooth as glass, about midway across we saw just the head and snout of the deer—a speck rippling the glassy surface as it moved along—a couple of hundred yards behind was another speck, moving, too, a ripple as the dog followed the deer. With a glass it was possible to observe the deer looking anxious backward and to continue with it in the eager, forward look of the dog in this life-and-death chase. Still the good dog obeyed the voice of his master, who recalled him, feeling that he might be injured when exhausted at the other side by the more powerful stag. By a man-chance a man on the opposite shore sent back the deer, which was despatched then by a shot from the stalker lying in wait. Having again about this dog, there is an episode in his early life which is worth recording. When Bob was two years old—his first season in the forest—he followed a wounded deer on a Saturday into the forest of Mar. The forester went into the strange forest far as he was justified in doing without leaving or seeing anything of the dog. He waited, but the dog did not return, and inquiries after him were made in vain. This was so strange that the man went on the following Friday to go deeper into the forest and to try to find the dog dead. The man had just passed beyond some rough stony ground when he thought he heard behind him some pitiful howling. He returned and found poor Bob, and on his neck a leather collar and a chain. He found the cross bar at the end of the chain caught between two rocks; thus the dog was held. The creature's feet were out and torn in trying to free himself; he was all but starved. By an odd coincidence, while dining with some friends one two years subsequently I found an explanation of this incident. A forester of Mar found the dog on the Saturday by the side of a dead stag. He took the dog home, and on Sunday morning some of the gentlemen staying at the lodge went to the stables to see this "queer-looking dog." On opening the door Bob rushed at with the collar and chain, found his way back to the line by which he had entered the forest, and no doubt would have chased home but for the accident by which he was held from that day till Friday without food or water. When he saw the man pass by he must have felt that his last hope was gone, he showed all his strength and whined so loudly that the pitiful man was heard, and his life was happily saved. A better dog which thus saved from a hopeless death never lived. I have still remains something to say about the size and habits of forests, and about deer versus sheep.

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THE INDIAN CIVIL SERVICE.

Amidst the general chorus of congratulations which has signalled the early close of the Egyptian war it is unpleasant to have to recall the less satisfactory incidents of the campaign. Proof as the Ministry undoubtedly are of the arrangements which enabled a force of nearly thirty thousand men to carry to its conclusion a hazardous enterprise in an short time, the self-laudation of Mr. Gladstone and Mr. Chamberlain will receive a severe check from the disclosures which are being made as to the treatment of the sick and wounded during the war. As regiment after regiment comes back the discontent as to the hospital arrangements is shown to have been general along the whole line. We can well understand that Sir GARNET WOLSELEY's sudden move forward caused him to outrun his medical stores as well as the other departments of his transport. But this does not account for the failure of supplies at Alexandria itself. Still less can it be connected with the sufferings endured by many during the journey home. Mr. Chamberlain was sharply questioned last night on particulars connected with the committee of inquiry which has been appointed, and Mr. Chamberlain has already given notice of a motion on the subject. It is certainly well that pressure should be immediately put upon the Government to prevent the sittings of the Committee being prolonged till some fresh crisis has arisen to distract the public mind, and, perhaps, to enable the Government, by treating the proceedings as confidential, to withhold information which should be in every one's hands. It is difficult to touch upon the matter without appearing to prejudge the case, but some facts have been so clearly established that we may be pardoned for recapitulating them. In the first place, it is notorious that those who were in hospital early in the campaign from the effects of bad water were in many cases unable even to obtain the ordinary food which would have been served out to them by way of ration had they remained with their regiments. Cases are well authenticated in which men suffering from diarrhoea thus remained twenty-four hours without food and returned to their post unaided by the directly decreased sustenance of the hospital. It is, in fact, known from private letters that a general request was given to officers by high authorities to refrain from commenting on the hardships thus endured, and to avoid, as far as possible, transmitting complaints to England. During the campaign such a precaution may serve well, but we have now a right to learn to whom we are indebted for so lamentable a failure. Nor is this all. In some cases cholera was lacking for operations; in others medical transport ran short. For many days the hospital arrangements were so primitive that the front that all inducement was taken away from private soldiers to avail themselves of them. It is to this in no small degree that we owe the serious breakdowns in the constitutions of many who were engaged in active service in the field for a brief three weeks. How our army would have fared had these operations been merely doled in length it is hardly possible to surmise.

The following extract is taken from the letter of an Indian correspondent:—
"The physical and mental deterioration of our civil servants under the system of open competition is at last beginning to awaken official alarm. Mr. Grant-Duff, who has ever been a consistent supporter of the system, has had his eyes opened very wide indeed by some of the results of it in the Madras Presidency. Here, in Bombay, the collapse of the system is complete. Since the institution of competition, out of the hundred odd civilians appointed to this Presidency since have died and two were forced to retire on account of physical debility; ten more were considered quite unfit for their work on account of inability to ride and enough more; and eight have positively become insane. It is this system which is creating almost a panic here, especially as these cases of insanity are nearly all recorded into the last few years, during which the standard of examination has been raised, as is necessary under the competitive system, to the highest pitch. The most anxious scrutiny is now made of each new batch of young civilians as landed, and their physical and mental condition is at once reported to Government. This is a pretty state of things to be relieved in as regards the ruling class of India. It is now accepted as a matter of course by the Indian Government that a young civilian should go mad at any moment. Imagine the government of a country like India, being administered in half-drunken and more distant districts by mad civil servants. These facts are notorious, and in reality more numerous than even the local Government themselves are aware of. Only the worst cases, that cannot be hid, are reported at head-quarters; but, in fact, cases of aggravated insanity, hysterical mania, melancholia, and a sort of half and half imbecility, all to be traced to the mad 'fad' of examining, now to be met with every day now; the marks of the once proud Indian Civil Service which in spite of the brilliant names of the early days of competition that when it is now every year falling lower and lower in popular estimation."

But painfully as these facts reflect on the department connected with them, there are others which, for the sake of common humanity, remain to be justified. The allegations in respect of the hardships endured by the wounded on the journey home must be sifted to the bottom. Those who are now in Netley Hospital give a most sinister account of their life on board the Carthage. The paucity of rations and the quality of food served out to men whose appetites required coaxing are a scandal. Moreover, the want of attention and care attributed to the doctors on board merits the gravest censure. If it be true that no food was served out to these invalids between 3.30 p.m. and the following morning, and that their beds were swarming with vermin, no steps can be too strong to mark this failure of duty on those guilty of it. Nor is the imputation confined to the Carthage. The belief of the wounded on board another hospital ship that the dietist food and the best quarters were appropriated by the medical staff is one to which attention is likely to be prominently called by the subsequent death of a well-known officer in the Casca who was one of the unfortunate sufferers. It may be, as we hope, that some of these statements are exaggerated, but we cannot conceive anything more likely to rouse public sentiment than their uncorroborated prevalence. That many will be established we make no doubt, but it is equally desirable that those which are untrue should be promptly disproved. There is a certain degree of dilatoriness in War-office arrangements which Mr. Chamberlain would do well to dispel, and nothing can be more absurd than to impudently Continental nations for their neglect of the wounded, when our own authorities prove themselves incapable of providing for so small a force. For it should be remembered that in Egypt there has never been in hospital from all causes a number proportionate to the wounded for whom provision had to be made after such a battle as Gisselotti. When the internal history of the Egyptian campaign comes to be told it will be appreciated how very much more credit is due to the troops and their commanders than to the Government for its speedy conclusion. There are not few opinions among those who were on the Gold Coast and in Egypt as to the proportionate hardships endured by those engaged. In the Ashantee war the terrible effects of the climate were neutralised by the most efficient medical supervision. In Egypt the hospital failures produced a most demoralising effect on the army before the battle of Tel-el-Kebir, and very nearly caused a mutiny among the wounded on board the Carthage on the return home. If those in fact are not rapidly called to account, the feelings of disgust engendered will greatly affect the credit which Ministers are endeavoring to appropriate to themselves out of the national triumph.

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circle, happily the average is not what it is declared to be in Indian civilian life. In these two details of the calculation we publish this morning there must be admitted to be matter for melancholy reflection. But the explanation, we believe, is not to be sought, at least directly, in the forcing system of competitive examinations. Ordinary professional existence at home allows of a multitude of shades and gradations. A process of natural selection is always going on. The few who are precocious push to the front speedily. When they keep their footing, it is that they have been endowed with tenacity as well as ambition. They who have not been thus endowed disappear, as their Indian parallels disappear. For the majority of successful professional men in this country advancement is slow and gradual. Their ability, mental and moral, and perhaps physical, to bear its burdens matures with the scope for its application. Very many who could not have endured the stress are never put to the ordeal. They rest in a comfortable obscurity. Had the Bombay civilians of the last twenty years entered English professions, they would have furnished instances of all the various kinds. Some would have raced up the ladder; others would have industriously climbed; most would have sat down at the foot. Transplanted to India, they embrace the compulsory vocation of professional success. Each of them is given the functions which in England he would have had to struggle for. The presumption of administrative life in India is that every civilian possesses the faculties for governing the empire or a substantive part of it. This is the load under which many Indian officials sink. They are called upon to lead when they might have fairly followed. They are placed at the head of departments when their gifts would have answered respectably in the lower grades of an office in Whitehall. An exhausting climate and unfavourable conditions of life must in any case press grievously upon the stock of English elasticity and energy in Hindostan. Too large a measure of responsibility often fills the cup to overflowing.

The high standard of competitive examinations for the Indian Civil Service may be partly accountable in one way for the deplorable amount of this blood and brain tax. Candidates with more power of accumulating than of using knowledge are tempted to compete, and examiners are tempted to reward them. An examination programme arranged more skilfully than at present to elicit evidence of mother wit might more attract the sort of intelligences best suited to resist the wear and tear of administrative work in the Indian Empire. The defect of the existing system is in a want of simplicity and in a cumbrousness of intellectual exactions not sufficiently related to the occupation to which they are the avenue. It is not, indeed, to be supposed that, were the system ever so wisely remodelled, the result would be to sift from the body of candidates as it is others for the leaders of the list than those who now head it. Whatever the plan of examination, the ablest candidates will manage to be foremost. There is as little reason to apprehend that they will, however undue the requisitions, so task their physical powers in the preparation as to unfit them for the exertion an administrative career in India enforces. But it may be suspected that the tendency of modifications since the system started has been to diverge somewhat from the route on which the most eligible description of candidates is to be met with. For the sake of India, and for the diminution of the rather portentous proportion of collapses in the civilian vocation, the competition ought to be regulated in a manner to render a Indian appointment an ordinary consequence and prize of a sound school education along with the school exhibitions and the college scholarships. Young Englishmen have been led to infer that for success they must stand aside from the general course, and betake themselves to a peculiar discipline. To a great extent that is a delusion. The public school-boy who has made use of his school opportunities, if he chose to compete, would, without special cramming, win an Indian Civil Service appointment as he wins a scholarship at the University. Not the less is it a fault of the impression conveyed by the programme that, as an appendage to other circumstances, it helps to disincline him to compete, and that, when he happens to compete, it superfluously burdens both him and his teachers with a seeming obligation to deviate from the beaten track of English education.

MISS MARY WARDELL'S CONVALESCENT HOME FOR SCARLET FEVER.

TO THE EDITOR OF THE TIMES.

Sir,—While the public is almost daily startled with news of the most reckless attempts to destroy life, may I solicit the aid of your powerful journal to draw attention to an effort which, though humble in its beginnings, will, I fervently hope, result not only in saving and prolonging the lives of many whom it may directly benefit, but these of untold numbers of the general community, by its indirect results. The effort to which I allude—viz., my proposed Home for Convalescents from Scarlet Fever, has already received favourable mention in *The Times*, on the occasion of its first being brought before the public at the meeting at the Mansion-house in June, 1881, and again when a second meeting in furtherance of my cause was held in March last year, in Downing-street, by the kind permission of Mrs. Gladstone.

An unfinished house and four acres of ground (freehold property) have been purchased by my committee in an isolated and healthy position at Brookley-hill, near Stanmore, and plans for the completion to the house, the addition of necessary offices and outbuildings, the laying out of the grounds, and, above all, the efficient drainage of the premises on a system which will prevent our Home from becoming a source of annoyance or danger to the neighbourhood, having been drawn out by an able architect and a sanitary engineer of great experience, have been approved by my committee, and the medical council of the Home.

To carry out these plans, however, without incurring debt, a sum of £4,000 in addition to the amount already raised is required. I earnestly appeal to your readers to enable the Home to be completed and ready to receive patients by the end of the summer without burdening it at the very outset with debt, which my committee are of one mind with myself in strongly deprecating.

The difficulty of finding a suitable site has been surmounted, and all that is now further needed is the above-mentioned sum, in order fairly to start this first attempt to supply so generally-acknowledged a want, on a scale, modest, yet sufficient to make this Home not only a source of benefit to many individuals, but an example and experiment which may be followed by similar institutions in various parts of the United Kingdom.

I have the honour to remain, Sir,
Your obedient servant,
MARY WARDELL.

2, Stanley-gardens, Belsize, N.W., March 22.

Times 2 March 1883

INDIAN CRIMINAL PROCEDURE.

TO THE EDITOR OF THE TIMES.

Sir,—Will you allow me to add a few lines to the letter from me which you published this morning under the above title?

I ought to have stated explicitly that the Code of Criminal Procedure of 1872 as originally drafted did not limit the jurisdiction over European British subjects to magistrates and judges who were themselves European British subjects. The limitation was introduced by the Select Committee to which the Bill was referred, after a careful consideration of the criticisms and observations made on the Bill by a large number of persons, official and otherwise. The Bill had been before the public for a considerable time—certainly many months—before the final discussion upon it, and was brought into its final shape after a most elaborate examination of the different criticisms which it called forth. I am, your obedient servant,

March 1. J. F. STEPHEN.

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Times 1st March 1883

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INDIAN CRIMINAL PROCEDURE.

TO THE EDITOR OF THE TIMES.

Sir,—As I was the principal author of the measure as to criminal procedure in regard to Europeans in India, which it is now proposed to alter, and as I observe that my name has been mentioned on several occasions in the discussions on the alterations now proposed to be made, you will, perhaps, allow me to give some explanations on a subject which is very imperfectly understood in England.

In this, as in most other cases, it is necessary to understand the history of the law in order to appreciate its present condition and the changes proposed to be made in it. The present criminal law of India has grown from two distinct roots, the Mahomedan law and the law of England. The Mahomedan law was introduced by the Mogul conquerors, and was found in force by the English when our power was first established in India. It was administered at first by native Courts, more or less under English superintendence. English magistrates and Judges, assisted by Mahomedan law officers, were afterwards substituted for the native Judges, and as experience accumulated the system of local Courts now existing all over India was slowly elaborated. It consists of a High or Chief Court in each province, a Sessions Judge, in some cases assisted by additional or joint Sessions Judges, and magistrates of various grades, with carefully-defined powers, in each district. The High or Chief Court is the ultimate Court of Appeal; the Sessions Judges may be compared to our Assize Courts; magistrates of the first class can sentence up to two years' hard labour and flogging, the second and third classes to the district Courts. They had up to that time been entitled in all cases to trial by jury in what were substantially English Courts, established principally for the express purpose of making their persons and property secure, and they regarded these privileges, together with the protection to their personal liberty supplied by the power of the High Courts to issue writs of *habeas corpus*, as their great safeguards against official oppression, and also against the far more serious danger of persecution by false accusations on criminal charges in a country where such accusations are the commonest methods of revenge and extortion. On the other hand, it seemed, and no doubt it was, both a grievance and a scandal that the large and increasing European population established in various parts of the country should practically enjoy impunity for nearly all their crimes. It was thought that the remedy provided by the Bill of 1872 would remove the real grievance upon the natives without introducing a new grievance to the Europeans. The code gave an efficient and somewhat summary form of trial generally speaking without a jury, for what, speaking roughly, might be compared to cases cognizable in England under the Summary Jurisdiction Acts and at the Quarter Sessions, and it left the jurisdiction of the High Courts in more serious cases as it always had been.

It is, no doubt, contrary to some notions current in England to make distinctions between the criminal liability of different classes of persons, though even here the principle that a man should be tried by his peers, and that application of it which in cases of treason and felony gives a special tribunal to peers of the realm, form part of the law of the land. In other parts of the world the principle is far more extensively acted upon. Special tribunals for Europeans exist in China and Japan, in Turkey, and in Egypt, and there is probably no part of the world in which there are so many personal laws as in India. Not only are Hindoo and Mahomedan law administered by every court in India in all cases connected with inheritance and many other subjects, but even in criminal matters the feelings of the natives and their practices as to personal appearance and the giving of evidence in and are studiously respected. If the wife of the Viceroy had to testify she would have to do so in the presence of a woman of her own rank and colour.

from which a Mahomedan married woman of low rank would be excused. I should doubt if there was any part of the world in which the common sentiment of the bulk of the population would acquiesce so naturally in the notion that Englishmen must be tried by men of their own race and colour.

As to the practical success of the system thus established two remarks will be sufficient. In the first place, the Code of Criminal Procedure of 1872, after having been in force for ten years, was last year re-enacted and extended in its operation to the High Courts, which had previously had their own procedure. A variety of alterations and amendments were introduced into the new measure, which in the ordinary course must have been submitted for their remarks to the different local Governments, but the part of the code which related to European British subjects was re-enacted without any alteration of importance, and the new code came into force on the 1st of January, 1883. Why it should be considered necessary to amend in 1883 a Bill which had been carefully considered and re-enacted in 1882 I am at a loss to imagine. This in itself seems to show that there can be no solid practical reason for the change proposed to be made.

In the second place, even stronger evidence on this subject is supplied by the nature of the proposed change. It is one of those changes which condemn themselves. What is proposed, as I gather from the telegrams and reports in your columns, is not to abolish the distinction between Europeans and natives, so as to introduce substantial equality between them in the matter of criminal justice, but to modify a privilege which in all its main features is to be maintained, superiority, shrink from the open, uncompromising, straightforward assertion of it, seek to apologize for their own position, and refuse, from whatever cause, to uphold and support it. I should be sorry to say a word which could embarrass any Viceroy in the discharge of the weightiest and most delicate duties which can be imposed on any of Her Majesty's subjects; but much of the language lately held as to local government, education, and some other subjects has filled me, as to my knowledge it has filled others who are interested in India, with apprehension, and I do not in the least wonder that the Europeans in India see in the proposed change about criminal procedure a symptom, all the more formidable because in itself it is slight and utterly needless, of a determination to try to govern India upon principles inconsistent with the foundations on which British power rests.

I am, Sir, your obedient servant,
J. F. STEPHEN.

Standard 3 June 1884

Summer, despite the east winds of the Epsom week, may now be regarded as having fairly got the better of the late lingering Spring. The hawthorn has come and is going, and the glory of the chestnut is on the wane. In a few days the hedges will be gay with roses, and the fields flush with a show of flowers compared with which the boasted luxuriance of the tropic jungle is a monotonous waste. But as every season brings its peculiar joys, so even the month of blossoms is laden with lurking dangers. March is the period when bronchitis is rife, and May is not free from the suspicion of being treacherous to those who trust too implicitly in its balmy zephyrs. June, however, has hitherto been free from evil reputation, and even the doctors have been of belief that the world might most fittingly take a holiday while the land was ablaze with floral beauty. Dr. MORELL MACKENZIE has, however, another tale to tell, and he tells it with effect in the admirable little brochure on Hay Fever which has just been printed. For unless he is the CASSANDRA of his profession, the fact of the air being scented with the fragrance of flowers is, according to his teachings, the very reason why the complaint is lurking in the soft Summer air. We all know the premonitory symptoms. After a long day in the fields or in the garden, it is too common to discover that something very like a Winter cold has attacked the idler. There is an itching sensation in the nose, and sometimes in the roof of the mouth. Paroxysms of sneezing, often of extreme violence, quickly ensue, and the eyes, in sympathy with the neighbouring cavities, weep profusely. Sometimes there is neuralgic pain in the eyeballs and over the back of the head, not infrequently asthma, and a variety of other symptoms, some of them less universal, but few of which leave much to be desired in the way of emphasis. The diagnosis is easy. The trouble is Hay Fever, and the unfortunate is doomed to bear it for a period varying from a few hours to half the Summer, when the malady takes its departure just as suddenly as it came. Henceforward, the victim remembers the name of his catarrh, avoids hay-fields as he would a small-pox ward, and so hopes to escape. But he too often finds that escape is impossible. Dr. MORELL MACKENZIE tells us why.

The popular name of this form of mucous irritation has, in fact, wrought the hay-fields a grievous wrong. For, as has been long suspected, and as Dr. MACKENZIE conclusively proves, the drying of grass has no more to do with it than that of any other species of plant. The disease is due to the pollen, or fine fructilising dust which exudes from the stamens of the flower, entering the air passages and setting up the inflammation which makes itself known by the uncomfortable symptoms we have described. It is pollen fever, if anything; and the pollen of the rose is, to some peculiar constitutions, often as fatal as that of the humble Timothy, rye, wheat, barley, or oats. Indeed, in America it is sometimes called the Rose Fever. The famous BROUSSAIS was impeded in his botanical studies by this idiosyncrasy; while cases are on record in which the "perfume" of a rose invariably produced the malady. A Devonshire lady, after being a martyr to the affection, was compelled to banish the "Queen of June" from her garden. The Roman worm-wood is a grievous offender; so grievous in-

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ENGLISH VISITATIONS OF CHOLERA.

As public attention is to a large extent concentrated upon the outbreak of cholera in the East, it will be of interest to recall the common opinion which this terrible scourge has visited England. It first appeared at Sunderland in October, 1817, and the following February it declared itself in Edinburgh. On the 13th of February also it was observed at Richborough and Limeshouse, in London, and on the 24 of March in Dublin. The mortality was very great, but nothing compared with that which obtained upon the Continent. Between March and August, 1817, there were 18,000 deaths in Paris alone. In the year of Her Majesty's accession, 1827, there was again much alarm in England concerning the cholera, but although it raged in the south of France, and extended northwards so far as Berlin, this country happily escaped.

The most terrible visitation which England has suffered occurred in 1844. The number of deaths in London for the week ending the 15th of September was 2,863, the ordinary average being 1,008, and the number of deaths by cholera from the 17th of June to the 25 of October in London alone was 15,561. It is noticeable that the mortality from the cholera varied in the different districts of the metropolis from 8 to 229 in 10,000, and was greatest in the low, the worst drained, and poorest districts, and worst of all in those supplied with water from the Thames between Waterloo-bridge and Battersea. The epidemic appeared to follow the course of the Thames, the towns of Richmond, Kingston, and Chertsey suffering severely, while the rural districts on and south of the Surrey hills enjoyed unusual health. In Kent, the towns on the Thames and Medway likewise suffered severely. In Gravesend the deaths, which in ordinary seasons amounted to 127, rose to 546, of which 285 were from cholera. There was also heavy mortality in the home counties. In the West Midland division Bristol and Clifton suffered greatly, and in the north the great town of Liverpool was one of the chief seats of the pestilence. In this town the deaths from all causes were 6,076, of which 3,488 were due to cholera, in a population of 225,000. Manchester had, from a population of 192,405, 2,742 from all causes, of which 621 were from cholera. Manchester, Chorlton, and Salford together lost 4,672 from a population of 256,553. In the high lands of the West Riding there was not much mortality, though it is not a little important to notice that one small spot in the town of Huddersfield was frightfully punished for its neglect. But the population towns on the rivers were especially visited. Bradford, Huddersley, Dewsbury, Wakefield, Pontefract, and Leeds lost 5,802 of their inhabitants during the three months. In Leeds alone 1,034 persons perished out of about 100,000; in Huddersley 550, or about 12 per cent. for the year; these deaths being chiefly in the older dwellings. Sheffield, which had suffered heavily in 1832, had almost the same to bear, and in consequence measures now escaped lightly. Hull suffered terribly. The deaths in this town alone were 1,705, of which 1,072 were by cholera, being 34 per cent. of the population. Scunthorpe lost 1,055; the two towns together, containing 60,000 inhabitants, losing 2,750 lives, or 4 per cent. of the population, in three months. The North Riding generally escaped, but the coal regions of Durham, with Newcastle, North Shields, and Gateshead, were severely ravaged. With regard to Wales, the same conditions which regulated the intensity of disease in Yorkshire prevailed in the Principality. The mountainous districts and rural towns were but little affected; the populous towns suffered greatly. The Merthyr Tydfil district, extremely one of the most healthy situations in England, was described as a complete plague spot. Nor was this to be wondered at, seeing that the town was built with utter contempt of sanitary considerations—no drains or sewers—only open gutters, into which all refuse and fecal matter was thrown. The inhabitants of this district numbered 32,865, of whom 1,876 perished, being 57 per cent. a higher proportion than in some of the worst districts of London.

The general results of the pestilence of the summer quarter of 1849 were thus stated. The deaths through the whole Kingdom in the summer quarter ending September 30 for the years 1846 to 1848 were respectively 101,665, 21,640, and 27,762, being about 1,983 per cent. This mortality increased in 1849 to 153,564, or 3,030 per cent.—an excess almost entirely caused by cholera. The mortality, which was unequally distributed over the country, was by far the greatest in the densely populated districts. The temperature had something to do with the pestilence, for with the advent of cool weather in October the excessive mortality at once ceased.

In September, 1853, some of the northern towns of England, including Newcastle, Maxham, and Tynemouth, suffered much from cholera, but the south was not visited until the year following. In the quarter ending September, 1854, the whole number of deaths by cholera was 33,587; by dysentery 11,150—total 44,737. This was not less than half the mortality of 1849. In the visitation of 1854 there was a distinct "cholera field" in London. The districts surrounding Golden-spring and the eastern side of Whitechapel, as well as the parish of St. George's-in-the-East, were fearfully visited. Along the valley of the Thames the mortality was also great. The epidemic raged severely at Liverpool and Westbury, the deaths increasing from 5,791 in 1853 to 4,545, those attributed to cholera alone numbering nearly 1,000. In London the deaths from cholera in 1854 were less than half the mortality of 1849. In the latest year the great towns of Scotland and Ireland suffered heavily; but the satisfactory lesson drawn from the visitation of 1844 was that timely attention to sanitary measures will, in most cases, deprive the pest of its virulence. The ravages of the cholera on the Continent and in the West Indies were very great in the summer of 1864. Europe was again the scene of a terrible visitation in 1865. The cholera raged in Alexandria in June, in Ancona in August, and in Constantinople in the same month. A great fire checked its progress in the last-named city, but not until 50,000 lives had been sacrificed. Between July and October the scourge was prevalent at Marseilles, Paris, Madrid, and Naples; and an international sanitary congress at Constantinople was held at Constantinople on the 18th of February, 1866. At the last sitting the conclusions adopted were that cholera—*vires*—is propagated, and from good stations, and sanitary measures were recommended.

In April, 1866, however, the cholera reached England, appearing first at Bristol, next at Liverpool, then at Southampton, and afterwards in London. Fortunately, the visitation (while fatal enough) was less severe in England than it was upon the Continent. It was observed in the East-end of London, where 709 deaths occurred in the week ending July 25. The plague subsided in the fortnight between the 21st of July and the 4th of August; then all at once it began to subside. A "Mole-pit" called *Arundel's* was formed, and a house to house visitation was instituted. Large subscriptions were raised at the Mansion-house, including one of £500 from the Queen. The deaths, as reported by the returns furnished to the local authorities, amounted to 4,306 from cholera and dysentery, but it was afterwards believed that this statement did not represent the total mortality, which was computed to be not far short of 8,000. This larger number, however, was trifling compared with the mortality upon the Continent, America alone being 100,000 lives by cholera. Since 1866 England has happily been free from the scourge; and it is extremely to be hoped that a rigorous attention to sanitary measures will prevent the spread of this terrible disease, should it unfortunately be brought to this country from abroad during the present season.

"BUDDHA" AT THE ZOO.

To the editor of the *Times*.—I beg you will allow me to place the following questions before the public through the medium of your valuable columns. What would be the feelings of the British aristocracy in Russia or in Spain, and especially of the official representatives of her Majesty, were they to find the streets of Moscow or Madrid placarded with announcements somewhat like the following:—"Plays Her New's British Bishop, acquired at Buenos Ayres, attended by his Chaplain I. Also a few Hindu, Hindoo, and two Christian! The Bishop will celebrate the full service, according to the rites of the Established Church of England, every morning. The Maskey House of the Royal Menagerie has been fitted up to serve initiation of the stained of an English cathedral. No charge given at the doors. Children and adults half price. N. B.—Visitors are requested not to feed the Bishop unless with the specially prepared hot cross buns sold on the premises." What would the British public think of an enterprising London stockholder who, entering a boat to competition at the Cattle Show at Islington, deliberately changed its name into the Holy Name which all Christians are taught to revere? The real name of the porboil-fowl, so-called "white" elephant is "Ting Ti Sing." In Englishmen consider it in good taste for the public name to be deliberately changed into one which, though it might seem natural in the mouths of an uneducated "missionary," is a great mockery of an ancient and most sacred name spoken by those who cherish the memory of Sakya-Muni for good, or by the multitude who having found his teachings from some country? It must be well understood that pure Buddhism utterly repudiates the worship of any animal whatsoever; nevertheless the name of Buddha is held in reverence by the most progressive Japanees of the "Shin-shin" (or Reforming Buddhists) to be useful just. It is, no doubt, very desirable that English men of science should have an opportunity of studying the "way and structure" of a genuine elephant, and of ascertaining whether his spine be really, as has been alleged, a form of ivory; and it is equally natural that the public should seek to see the best beast of his kind ever brought to Europe. Surely, if the gardens of the Zoological Society of London are to be the scene of this exhibition, let it at least, for common decency's sake, be conducted with as little offence as possible to the "stranger within our gates." We have not only a Buddhist Legation, but, at least one English if given of Buddhist faith in our midst, and especially in those earnest and learned Buddhist pupils of the "Shin-shin" sect who are cringing at English universities with such great credit to their nation, their creed, and themselves. Let Englishmen remember that a similar insult, if offered to Christianity in the far East, would bring British gun boats on the scene of action, and would probably, in the exercise of an object apology and of a heavy indemnity, should a protesting British ultimatum not have been heeded by the crowd, as would undoubtedly happen to any zealous Briton who might attempt to interfere with the conversion of the silent lanes at the "Zoo" into a temple of the accommodation of stings. As to the ruler who sold the elephant, the less said about him the better. Trusting these few remarks may call public attention to what deserves to be a branch of good tactics. I remain, Sir, yours very truly, A. Duler, Leman Lodge, 7, Lambeth-road, Kensington Park, W., January 18.

Thoughts of Other Days, or Selections from the Leisure Moments of a Busy Life. By the Rev. Chaloner Greville, Editor.

History of the Ordnance, with an account of the various arms, accoutrements, and military stores, which are now in use in Great Britain, and of the manner in which they are manufactured.

FOR THE LANTERN-BORN HORSE. Maximum thermometer, 22.8 degs.; minimum thermometer, 17.3 degs.; at 9 P.M., 109 inches. Depth of snow (by snow gauge), 1.5 inches. Wind variable; barometer fell up to 10 A.M., and has been rising since. Very heavy snowfall on Sunday night, but the strong wind prevented it lying on the ground.

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BEN NEVIS WEATHER REPORT. BEN NEVIS OBSERVATORY, FEBRUARY 11, 1884. J. HOLMES, Observer.

Weather fine; sunny. W.S.W., moderate. W.S.W., moderate. W.S.W., strong; lower cloud middle, 10 A.M. (true). W.S.W., strong; lower cloud middle, 10 A.M. (true). W.S.W., strong; lower cloud middle, 10 A.M. (true).

LATHS NAVIGATOR SCHOOL, FEB. 11.

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THE LATE DUKE OF ALBANY.

All the London papers last Saturday morning contained long and detailed accounts of the death of His Royal Highness the Duke of Albany at Cannes, which he had announced on the previous day. From these accounts we learn that the Duke had been enjoying his stay at Cannes, which had improved his health greatly. He had attended many garden parties, had been present at several balls, and had dined two or three times at the club. He had also taken daily drives, exploring the suburbs, and often in company with Captain Perceval. His Royal Highness attended church on Sundays, and was so pleased with his stay at Cannes that he was on the point of purchasing, if he had not already purchased, land with the intention of building. On the previous Thursday he proposed to take a party of his friends to the coast. A long string of carriages wound up the precipitous hill, which reached the railway station at 1.10 p.m. There a considerable force of soldiery was posted, which presented arms on the arrival of the bearers. The coffin was at once placed in a van, the interior of which was hung with black cloth. The Prince of Wales remained until this part of the sad ceremony had been accomplished, and then withdrew with the Duke and Duchess of Saxe-Coburg-Gotha to the principal waiting-room. All the wreaths having been placed with the coffin in the van, it was shunted from the siding on to the main line, General Du Plat remaining standing on the step until the doors were sealed with leaden seals, in accordance with the French law. Not more than a quarter of an hour having elapsed from the arrival of the cortege at the station, the express train, by which the Prince and his suite were to travel with the body of the Duke of Albany, steamed in from Nice, and another 15 minutes having been occupied in adding a carriage for his Royal Highness and his suite together with the mourning van, the Prince of Wales issued a particularly cordial good-bye to poor Captain Perceval and to all his acquaintances, and having issued the Duchess and Duke of Saxe-Coburg-Gotha affectionately, entered a saloon carriage with Captain Ellis. In the next compartment were General D'Almeida, the Hon. A. Yorke, and Dr. Royle, and the suit followed in another carriage. His Royal Highness remained at the window, bowing repeatedly as the train moved out of the station at 1.40, and thus terminated a painful but memorable ceremony of which Cannes and the Governmental authorities in this district may with reason be proud, for it has shown the cordiality towards England is not everywhere extinct in France.

The funeral takes place at half-past 11 o'clock this (Saturday) morning, at St. George's Chapel. The Very Rev. Randall T. Davidson will officiate. The Royal family will previously assemble in the Albert Chapel, near the remains of the Duke, and the invitees, comprising many distinguished personages, including members of the Government and the Corps Diplomatique, who will be conveyed from Paddington by Great Western special train will occupy seats in the choir of St. George's, which will not hold more than about 300 persons. On the departure of the body from the Albert Chapel, the Queen will drive to the Deanery, pass through it to the Cloisters, and thence to be placed on the left of the communion table, between the floor leading to the North Cloister and the beautifully

wrought iron gates, worked by Quentin Matsys, in fact, immediately under the Royal pew, which will likewise be prepared in case it may be required. The Queen will await in the chapel the coming of the remains, which, followed by the Prince of Wales and chief mourners, will be borne along the south side of the chapel, and thence through the nave and choir to the communion steps. Dr. Parratt will preside at the organ, the hymns being "O God our help in ages past" and "Lead kindly light," and the anthem "Blest are the departed" (Spohr).

Votes of condolence with her Majesty the Queen and the Duchess of Albany were passed in both Houses of Parliament on Monday. In the House of Lords, Earl Granville said—My lords, it was my painful duty on Friday to announce to your lordships the death of Prince Leopold, Duke of Albany, a death rendered the more lamentable by its suddenness and the youth of him who has just passed away. I have now to ask your lordships to join in the Address of which I have the assurance and the expression of our warm sympathy and our deep concern under the announcement of calamity with respect to which undoubtedly the suddenness has been a very great aggravation of the stroke. Sir, we cannot look upon the case of his Royal Highness the Duke of Albany as that of a person who carries no mark except that of high descent and lofty station. The Duke of Albany has been taken from us, and taken from his family, at a period, which, perhaps most of all, appeals to the sentiments of the human heart. When those are removed from this mortal scene who have reached advanced age, even if a sentiment of regret may surround them, yet it is felt at any rate that their work was done. When in extremely early life it pleases Providence to cut the thread of that life before he had had in any degree opened into flower, deep regret is felt, but at the same time none can measure the loss which has been sustained. But this is a case in which the Duke of Albany had reached an age sufficient to indicate to the country that we possessed in him a prince in every way worthy of the highest associations of his station, and possessed of every capacity and of every desire to do good service to his country. (Hear, hear.) The Duke of Albany's merits were, indeed, of no common order, and they had been carefully cultivated from his youth upwards—cultivated by the assiduous care of his parents, but cultivated also, and latterly with greater effect, by his own manly determination. (Hear, hear.) He was a person, Sir, in whose case it could not be said that the possession of a princely rank was likely to be a barren and an idle distinction. His whole idea of his position was in its association with public duty and with public service, and both the gift which it had pleased Providence to bestow upon him and the cultivation which had been incessantly applied to them, gave the richest and most certain promise that if it had been happily permitted to us to have witnessed a prolonged career in his case, that career would have been marked at every point of its progress by acts as well as words which would have given him an honourable place in the history of his country. (Hear, hear.) Sir, the Duke of Albany, both from his rich endowments and likewise from the cultivation of those endowments, recalled in no common degree the memory of his illustrious father. (Hear, hear.) I think that those who have made themselves acquainted with the sentiments of the Duke of Albany upon the

various occasions on which he has appeared before portions of his fellow-countrymen for the purpose of putting forward some great public object, will have been pleased to trace, both in the general turn of mind, even in the forms of expression, and in the whole shape and manner of the proceeding, that the father was, in a certain sense, revived in the son. Sir, under these circumstances, it will be felt that the words of an Address to be presented by the House of Commons will carry with them an unusual force and meaning. The primary object of that Address, of course, is her Majesty the Queen, whose motherly feelings have received upon this occasion so severe a shock, and who will be thrown back by this sad occurrence upon the recollection of others not less, and in one case even more crushing. But, Sir, there is also another person who is entitled to claim a large share of our sympathy, though according to the usage of our Constitution we approach her only through the South-western railway. The 1st Battalion of the Coldstream Guards will be drawn up as a guard of honour opposite the Royal waiting-room, and at the guardroom of the Towerward of the Castle another party of the Guards will be placed. The remainder of the regiment will line Thames-street and Castle-hill on each side of the road, a total force of 650 men and 22 officers being employed, under the command of Colonel Wigram. The remainder of the route from the Royal waiting-room to the bottom of Thames-street will be kept by the 1st Berkshire Rifle Volunteers, nearly 600 strong, under Major Toke. Those of the Royal Horse Guards Blue who are not engaged in the escort will all in the procession, Colonel Barnaby being in command of the regiment. As the procession reaches the top of Thames-street, and before it turns round the corner of the Eighth's Gateway, the Mayor and members of the Corporation of Windsor will join the cortege, and will place a wreath on the coffin. Passing through the Eighth's Gateway, the procession will come to a halt as it reaches the entrance to the Dean's Cloisters, and here the coffin will be taken on its bier by a party of the Seaforth Highlanders, and wheeled into the Albert Memorial Chapel. A catafalque, built of brick, has been erected there, and covered with black cloth, and on this the coffin will be placed and left until to-morrow, the moveable bier being taken round to the west door of St. George's Chapel ready for use for the final ceremonial. The approaches to the south door of St. George's Chapel and the Dean's Cloisters have had each a covered way erected leading to them, for the better seclusion and privacy of the mourners. Inside the Chapel the workmen of the Lord Chamberlain's Department have been busy rapping the building in black and white, except at the western end, which is boarded off during the carrying out of the extensive alterations. As the body will be conveyed through the western door, however, a gangway nine feet wide has been erected through the western aisle, and this has been covered with suitable mourning.

The medical profession are now ordering Cadbury's Cocoa Essence in thousands of cases, because it contains more nutritious and flesh-forming elements than any other beverage, and is preferable to the thick starchy cocoa ordinarily sold. When you ask for Cadbury's Cocoa Essence be sure that you get it, as shopkeepers often push imitations for the sake of extra profit. Makers to the Queen. Paris Depot, 96, Faubourg St. Honoré.

list of the slain from these strongholds has not by any means been in the same ratio as the true story, some of the blood that was generally richly deserved. For scent at the post of these, is never first-rate on these ploughs, and they usually have to make good use of their noses if they mean to account in any way for their fox, let alone hunting him to the death. A fallow above Whitehill Wood, in which an old fox has taken up his quarters during a great part of the past winter, was tried now, but returned was from home, as if he had received information that unwelcome visitors intended calling on him, and so the pocket worked on into the wood where our old friend or another had been viewed about half an hour before. Scarcely however, was so poor that although he had not recently seen, and it was evident that he had not lingered there, or left any apparent clue as to the direction in which he had extended his travels. Pathetic as it may seem, I think that the fox in question was not so much as to be taken into the old fallow, almost round over him, when Harris had tried the greater part of the place. I fancy, almost round over him, when Harris had tried the greater part of the place. I fancy, almost round over him, when Harris had tried the greater part of the place. I fancy, almost round over him, when Harris had tried the greater part of the place.

Defendant was further charged with assaulting Police-Constable Hart, while in the execution of his duty at the same time and place. The prosecutor said: On Monday, Feb. 25th, I was on duty at this Bench, when from what I heard I went outside the court and saw defendant struggling with Police-Constable Stoken and Clark. I saw that Stoken's coat was very dirty and torn. I sent him back to the Bench, and took charge of defendant, when he commenced striking very violently, and without any warning he threw me violently to the ground. I took him back to the Bench, and he was very violent in his behaviour while there. Police-constable Clark gave corroborative evidence. The Court was cleared, and on the public being admitted defendant was fined £11, 6s. or one month's imprisonment for each assault. Defendant was afterwards apprehended and committed to St. Albans gaol. DRUNKENNESS. Caroline Jewell, wife of the above defendant, was charged by Police-Constable Hart with being drunk on the licensed premises of Messrs. ...

THE LATE DECK OF ALBANY.

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Sir,—I have long retained, but since I have read the last papers presented to Parliament, I can no longer resist my strong inclination to trouble you with a letter on Egyptian affairs. I can not so foolish as to imagine that anything I can say will have the smallest effect on the measures of the Government, and I know that by the wrong use to which it has been put, it will be used as a precedent by the Ministry for the purpose of justifying their policy. My object in writing is to state as clearly and as honestly as I can the views which I hold on the subject, and to state the reasons which led me to hold these views. I do not mean to say that I am in a position to judge of the merits of the Government's policy, but I can state the reasons which have led me to form these views, and to state the grounds on which I believe them to be just.

I have long been of opinion that the Egyptian Government was not in a position to carry out its policy, and that it was necessary for the Government to take measures to bring it to a state of order. I have long been of opinion that the Egyptian Government was not in a position to carry out its policy, and that it was necessary for the Government to take measures to bring it to a state of order. I have long been of opinion that the Egyptian Government was not in a position to carry out its policy, and that it was necessary for the Government to take measures to bring it to a state of order. I have long been of opinion that the Egyptian Government was not in a position to carry out its policy, and that it was necessary for the Government to take measures to bring it to a state of order.

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THIRD EDITION.

RYLANDS STANDARD OFFICE, THREE & CHURCH.

DYNAMITE OUTRAGES IN LONDON.

EXPLOSIONS IN FALL-MALL AND SCOTLAND-YARD.

ATTEMPTED DESTRUCTION OF NELSON'S MONUMENT.

FOUR DEPOSITS OF DYNAMITE.

THE WRECK OF THE INJURED LATEST PARTICULARS.

REMARKS.

A short investigation into the circumstances of the explosion of last night, shows that the dynamite was not made by the dynamite makers, but was made by the conspirators themselves. The dynamite was made in the kitchen of the house of the conspirator, and was found in the kitchen of the house of the conspirator. The dynamite was made in the kitchen of the house of the conspirator, and was found in the kitchen of the house of the conspirator.

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June 10 June 1884

TO THE EDITOR OF THE TIMES.

Sir,—Will you allow one of the many women who would regard the enfranchisement of their sex as a fatal mistake to say a few words on the subject? I am aware that an extended female franchise is not contemplated in Mr. Woodall's amendment; but every one must know that it is involved in it, for the amendment, if carried, sweeps away the only natural barrier to such a franchise. The whole sex may be debarred from the right of voting. The right once given to the few among it can be no more withheld from the many than it has been in the case of men. The "property" qualification can maintain no line between married women and single from the moment both hold it on the same terms; and the right of property once uniformly established the lowering of its conditions for women as well as for men is only a question of time. This brings us to a point at which the numerical strength of the female voters must insure their admission to any branch of political life in which they choose to enter, and though their interest in that life and the ambitions it would create might in many cases subside with its novelty, the injuries inflicted on the social and domestic order would be lasting.

The ground on which Parliament is urged to initiate this portentous change is that of justice to the female sex. The "injustice" of the existing state of things is the constant cry; and in Mrs. Garrett Anderson's otherwise very temperate letter of May 31st the term "gross injustice" is applied to it. I do not imagine that in thus defending the "rights" of unmarried female householders she was actually pleading for the whole sex; but a woman of such commanding intelligence, could not fail to know that she was virtually doing so. Now it is precisely on the ground of justice to women (as well as men) that I and those who feel with me deprecate this change, for we believe that whatever is best in the influence of women will sooner or later be destroyed by it. I am amazed to find among the advocates of women's rights so little confidence in the inherent power of womanhood; I am amazed to find in this scientific age so little belief in the power of habit and association to make or mar it. I believe absolutely in the moral influence of woman as such. To say, as Mrs. Garrett Anderson does, that it is "effaced" (in legislation or otherwise) unless exercised through the channel of the electoral vote is, to my mind, like saying that if our eyes are shaded from the glare of the sun we cannot feel its warmth; and I believe, as do others much wiser than myself, that what makes them and their influence what it is is leading the woman's life; that the different quality of brain, the different balance of nerves, the different physical sensibilities which make their partnership valuable and their society a relaxation at the same time begin and end with the different experiences of their woman's world. Our opponents laugh at the idea that women can ever cease to be womanly. "Nature," they say, "is too strong to be

effaced."

The substantial answers given yesterday by Mr. Gladstone and Lord Granville to the House adjourned at 10 minutes past 1 o'clock.

Several other Bills were forwarded a stage, and to a Select Committee.

The House adjourned at 10 minutes past 1 o'clock.

June 28 July 1884

Sir—Several English Daily
THE SUCCESSION TO THE THRONE OF THE NETHERLANDS.

Mr. J. F. B. H., proposed a vote of thanks to the Lord Advocate, after which the proceedings terminated. (Cheers.)

"I shall brethren be for a state."
 "That man to man the world of."
 "For a state and a that."
 "It's coming yet for a that."
 "For a that and a that."

The Lord Advocate, in acknowledging the vote of thanks, said that he was glad that the Lord Advocate had done so, and that he was glad that the Lord Advocate had done so. (Cheers.)

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An interesting scene took place within the garden... The speaker... the audience...

Unfortunately, the weather on Saturday was very... The speaker... the audience...

The fact of the matter, when things were... The speaker... the audience...

It is a sad fact that the... The speaker... the audience...

It is a sad fact that the... The speaker... the audience...

It is a sad fact that the... The speaker... the audience...

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June 10, 1894

TO THE EDITOR OF THE TIMES

Dear Sir, I am writing you to... The speaker... the audience...

Dear Sir, I am writing you to... The speaker... the audience...

Times 19 November 1884

DR. KOCH AND THE COMMA BACILLUS.

TO THE EDITOR OF THE TIMES.

Sir.—Since you have published Dr. Koch's reply to the objections made by those who refuse to admit that he has discovered the cause of cholera, and since my friend Sir Spencer Wells speaks to-day in *The Times* of "the discoveries of Dr. Koch" in relation to that disease, I trust you will allow me space to avvert, if possible, by the statement of a few plain facts the public danger which must arise from a blind acceptance of Dr. Koch's assertions, as well as to protest against the immense injury to the cause of science generally which the proceedings of Dr. Koch are likely to produce unless they are emphatically repudiated by those who know them to be absolutely inconsistent with scientific method.

"The position which I take up is briefly as follows:—It is not yet proved that all infectious diseases are caused by parasitic micro-organisms, and consequently in each particular disease the proof of the parasitic character of the disease must be furnished. The first step towards this proof consists in the careful investigation of all those parts of the body affected by the disease, in order to establish the presence of the parasites, their distribution in the diseased organs, and their relation to the tissues of the body. It is not until a thorough knowledge has been obtained in this way as to whether micro-organisms are present in the diseased parts, at what points they are present in perfect purity—whether, for instance, in the lungs, spleen, heart's blood, or elsewhere—that the attempt can be made to obtain the proof that these micro-organisms are of a pathogenic nature, and that they are more especially the cause of the disease in question. With this object in view they must be isolated by means of 'pure cultivation,' and when they have been freed in this manner from all particles of the diseased body originally adhering to them they must be introduced by inoculation into the same species of animal in which the disease was observed, or, if that should not be possible, into animals in which the disease in question is known to occur with unmistakable symptoms. . . . An example is afforded by the disease known in man as erysipelas. It has been known for a long time that in this disease micrococci constantly are found in the lymph vessels of the skin. But by this knowledge it certainly was not proved that the micrococci are the cause of erysipelas. Now, however, that Fehleisen has recently succeeded by excision of portions of skin from erysipelas patients (with every precaution against contamination by other bacteria which might be accidentally present on the skin) in rearing these micrococci in 'pure cultivations' and in producing typical erysipelas by inoculating the human subject with these isolated micrococci, there can no longer be any doubt that the micrococci are, in fact, the cause of erysipelas, and that the latter is to be regarded as a parasitic disease."

The above paragraph in inverted commas is an admirable exposition of the principles and methods accepted by scientific investigators in reference to such a question as the causation of cholera by micro-organisms. Your readers will not readily suppose that they are accepted by Dr. Koch, since, having advanced no further in the investigation of cholera than the preliminary stage of observing a comma-like bacillus to be present in company with many other micro-organisms in the intestines of human beings dead of cholera, he has proceeded to declare that he has "discovered" the cause of cholera, and has not merely confided his opinion to medical colleagues, who would be able to measure the value of such an opinion, but has in the most public way urged the adoption of his conclusion as a basis for practical measures against cholera and thus incurred the most solemn responsibility. Nevertheless the fact is that the paragraph in inverted commas is a literal translation of Dr. Koch's own words published in 1882, in a pamphlet entitled "Ueber die Milzbrandimpfung," which bears the significant additional title, "Eine Entgegnung auf den von Pasteur in Genf gehaltenen Vortrag."

It is clear that Dr. Koch is self-condemned. He has not produced cholera by the administration of pure cultivations of the comma bacillus in man or any other animal, and yet he has staked his reputation on the dogmatic assertion that the comma bacillus is the cause of cholera. Evidence which he two years ago told us was insufficient to prove that certain micrococci are the cause of erysipelas, he now considers sufficient to justify him in claiming to be the discoverer of the cause of a much more serious disease, and he has not hesitated to risk the lives of thousands, together with his own reputation, by giving all the weight of his official position and his well-earned distinction to the public propagation of his dogma. My chief object in insisting upon the unfortunate position in which Dr. Koch has placed

himself with regard to this matter is to point out that it is impossible to accept his further experiments and assertions as those of an unbiased observer. By prematurely claiming to have discovered the comma bacillus as the cause of cholera Dr. Koch has put himself out of court. The responsibility is too great; the issue, so far as it personally affects him, is too momentous for Dr. Koch to be able to conduct further experiments with unclouded judgment.

As any rate it is impossible for reasonable men to accept further statements by him with any approach to the confidence which attaches to the statements of an observer who has not, as Dr. Koch has, deliberately, under circumstances of special significance, betrayed the principles laid down by him two years before, and universally recognized as the expression of sound logic.

Such being the conclusions with regard to Dr. Koch's asserted "discovery" of the cause of cholera, to which we are led by reference entirely to his own official statements as to his observations, it is in the next place desirable to notice what he has said in reply to recent criticisms of the position taken up by him.

1. Dr. Koch now terms those persons "sceptics" who hold to the principles which he himself enunciated in 1882. He apparently expects his conclusions to be accepted as articles of fact and deprecates scepticism.

2. Dr. Koch informs us that he is now making experiments on guinea pigs which tend to prove that cholera can be produced in these animals by pure cultivations of the comma bacillus. The production of choleraic symptoms in rodents is not difficult. It will be impossible to attach any weight to such results obtained by an experimenter whose character is so deeply involved in the issue as is Dr. Koch's. He should not have committed himself as he has done before making these experiments.

3. In his official reports and his address to the Congress of German medical men in Berlin in last July, Dr. Koch stated that although he had not succeeded in producing cholera by the agency of the comma bacillus, he absolutely and unreservedly declared it to be the cause of cholera, because it was a quite peculiar and new kind of bacillus, which did not occur in the healthy body, and always occurred abundantly in cholera. The peculiarities of the comma bacillus insisted upon by Dr. Koch, were, in the first place, its form. He says:—"On account of its peculiar form I have given to it the name of comma bacillus." He then proceeds to describe changes caused by it in gelatine when cultivated on that substance, and details many other facts as to circumstances which influence its growth. In none of his published statements previous to the publication by the English Army Medical Department of Dr. Lewis's remarks, does Dr. Koch state that a bacillus in any way resembling in its form this comma bacillus occurs in the healthy body. On the contrary, he expressly states that no such bacillus is known to him. Had he known a comma bacillus occurring normally in the human body, but differing from the cholera bacillus by certain differences in its action on gelatine, he must have mentioned its existence. To suppress the fact, if known to him, would have been exceedingly improper. It is difficult to believe that Dr. Koch would have called his cholera micro-organism the comma bacillus if at the time he had been acquainted with another comma bacillus frequently present in the mouths of healthy persons. Yet Dr. Koch, in reply to Dr. Lewis, states that a comma bacillus of the mouth has been long well known. I venture to say that it has not been long known to Dr. Koch. He also states that the comma bacillus of the mouth behaves differently when cultivated on gelatine from the cholera comma bacillus. At what date did Dr. Koch make experiments showing that difference? I cannot for my own part attach much importance to those experiments till I know when they were made and the exact details connected with them.

As to the identity of the forms of comma bacillus obtained from cholera patients' intestines and from the healthy human mouth, I do not hesitate to say, from my own examination of them, that it is complete.

4. Messrs. Finkler and Fryer, of Bonn, have found in the dejects of patients suffering from acute diarrhoea that there is a comma bacillus present identical in form with Koch's comma bacillus. They have forwarded specimens to Dr. Koch, who in the article translated in your columns endeavours to dismiss the observations of these gentlemen by statements which refer to his examination of the specimens sent to him. Dr. Koch states that the bacilli sent by Messrs. Finkler and Fryer were "slightly crooked or lemon-

shaped." I have also had the opportunity of examining a preparation sent to this country by Messrs. Finkler and Fryer and of comparing them with the comma bacillus (so called by Koch) from cholera patients, and I entirely disagree with Dr. Koch's statements.

The preparation exhibited a great number of comma bacilli, differing only from those obtained from cholera cases in the very smallest degree—namely, in being a very little larger. Messrs. Finkler and Fryer have recently visited Genoa, in order to compare their comma bacillus on the spot with comma bacilli obtained from cholera patients, and they report (since the publication of Dr. Koch's answer to his critics) that "they have fully established the identity of the comma bacillus in the two cases. They find (as most bacteriologists who do not accept Dr. Koch's peculiar views would expect them to find) that the comma bacillus of cholera varies in size and somewhat in form, according to the conditions under which it is cultivated. Dr. Koch tells us, in reference to the observation of Messrs. Finkler and Fryer, that he has examined cases of diarrhoea and dysentery, but has found no organisms which could be confounded with cholera bacilli. In this connexion it is exceedingly important to state, what Dr. Koch omits to state—viz., that he has also examined many cases of true Asiatic cholera without (according to his official report) finding the comma bacillus.

5. Lastly, it is a matter of extreme significance in regard to Dr. Koch's arbitrary selection of a "comma-shaped bacillus" as the cause of cholera, that he has entirely omitted to reply to the grave charge which is made against him by Dr. Lewis of having selected when in Egypt a straight bacillus, "similar to that of glanders," as the probable cause of cholera, and of having subsequently when in India abandoned this straight bacillus in favour of the comma-shaped bacillus.

Dr. Lewis bases his charge against Dr. Koch upon the plain and unmistakable words of Dr. Koch's series of reports. The fact that the bacillus which Dr. Koch chose to select as the cholera germ when in Egypt is a different form from that which he elevated to this dignity when in India is beyond doubt or denial. There is nothing to be said about this change of opinion, except that it is a pity that Dr. Koch was not more careful before declaring his earlier views. What, however, is very serious and likely to shake all belief in the accuracy of Dr. Koch's statements is this—viz., that he has never himself explicitly confessed that he has changed his view as to the particular organism responsible for cholera. Not only has he omitted to confess his abandonment of the Egyptian bacillus, but he has directly and intentionally spoken in his later reports of the straight bacillus observed by him in Egypt as though it were the same semi-circular or comma bacillus subsequently studied by him in India. I can, if necessary, give full quotations from Dr. Koch's reports which establish beyond a shadow of doubt that he has in this way shifted his ground, and at the same time concealed the fact from those to whom his official report is addressed. In his report from Alexandria, September 17, 1883, he says:—"These bacteria are rod-shaped, and belong accordingly to the genus bacillus; they resemble most nearly in size and form the bacilli found in glanders" (which are straight). In his report from Calcutta, dated January 9, 1884, he says—"The microscopic examination demonstrated the presence of the same bacilli in the cholera intestine as had been found in Egypt." In a further report, dated February 2, 1884, we at last get the following remarkable statement:—"The bacilli are not quite rectilinear, like other bacilli, but slightly curved like a comma. The curvature is sometimes sufficient to give the bacillus a semi-circular form."

Apart from our judgment as to his want of candour in omitting to give full explanation as to this change of view, our estimate of the value of Dr. Koch's theories cannot be very high when we find that he assigns great importance to a minute difference in the thickness of semi-circular comma bacilli. I have examined a large number of comma bacilli, and I can assure you that I have never seen any such difference. I have seen many straight bacilli, and many curved bacilli, but I have never seen any such difference. I have seen many straight bacilli, and many curved bacilli, but I have never seen any such difference. I have seen many straight bacilli, and many curved bacilli, but I have never seen any such difference.

COOK BROTHERS COOK WANTED for near town. No salary. For the General Post Office, Manchester. Age, length, full particulars, and where last employed. Address. The Honorable, Miss Underwood, English and able to take part in. COOK BROTHERS COOK WANTED, Single-handed, in quantity of two. First London where two others are kept. 11, St. Albans Street, London. COOK BROTHERS COOK WANTED for near town. No salary. For the General Post Office, Manchester. Age, length, full particulars, and where last employed. Address. The Honorable, Miss Underwood, English and able to take part in. COOK BROTHERS COOK WANTED, Single-handed, in quantity of two. First London where two others are kept. 11, St. Albans Street, London.

Series 19 November 1884

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"The position, which I take up is briefly as follows:—It is not yet proved that all infectious diseases are caused by parasitic micro-organisms, and consequently in each particular disease the proof of the parasitic character of the disease must be furnished. The first step towards this proof consists in the careful investigation of all those parts of the body affected by the disease, in order to establish the presence of the parasites, their distribution in the diseased organs, and their relation to the tissues of the body. It is not until a thorough knowledge has been obtained in this way as to whether micro-organisms are present in the diseased parts, at what points they are present in perfect purity—whether, for instance, in the lungs, spleen, heart's blood, or elsewhere—that the attempt can be made to obtain the proof that these micro-organisms are of a pathogenic nature, and that they are more especially the cause of the disease in question. With this object in view they must be isolated by means of 'pure cultivation,' and when they have been freed in this manner from all particles of the diseased body originally adhering to them they must be introduced by inoculation into the same species of animal in which the disease was observed, or, if that should not be possible, into animals in which the disease in question is known to occur with unmistakable symptoms. . . . An example is afforded by the disease known in man as erysipelas. It has been known for a long time that in this disease micrococci constantly are found in the lymph vessels of the skin. But by this knowledge it certainly was not proved that the micrococci are the cause of erysipelas. Now, however, that Fehleisen has recently succeeded by excision of portions of skin from erysipelas patients (with every precaution against contamination by other bacteria which might be accidentally present on the skin) in rearing these micrococci in 'pure cultivations' and in producing typical erysipelas by inoculating the human subject with these isolated micrococci, there can no longer be any doubt that the micrococci are, in fact, the cause of erysipelas, and that the latter is to be regarded as a parasitic disease."

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1. Dr. Koch now terms those persons "sceptics" who hold to the principles which he himself enunciated in 1882. He apparently expects his conclusions to be accepted as articles of fact and deprecates scepticism.

2. Dr. Koch informs us that he is now making experiments on guinea pigs which tend to prove that cholera can be produced in these animals by pure cultivations of the comma bacillus. The production of choleraic symptoms in rodents is not difficult. It will be impossible to attach any weight to such results obtained by an experimenter whose character is so deeply involved in the issue as is Dr. Koch's. He should not have committed himself as he has done before making these experiments.

3. In his official reports and his address to the Congress of German medical men in Berlin in last July, Dr. Koch stated that although he had not succeeded in producing cholera by the agency of the comma bacillus, he absolutely and unreservedly declared it to be the cause of cholera, because it was a quite peculiar and new kind of bacillus, which did not occur in the healthy body, and always occurred abundantly in cholera. The peculiarities of the comma bacillus insisted upon by Dr. Koch, were, in the first place, its form. He says:—"On account of its peculiar form I have given to it the name of comma bacillus." He then proceeds to describe changes caused by it in gelatine when cultivated on that substance, and details many other facts as to circumstances which influence its growth. In none of his published statements previous to the publication by the English Army Medical Department of Dr. Lewis's remarks, does Dr. Koch state that a bacillus in any way resembling in its form this comma bacillus occurs in the healthy body. On the contrary, he expressly states that no such bacillus is known to him. Had he known a comma bacillus occurring normally in the human body, but differing from the cholera bacillus by certain differences in its action on gelatine, he must have mentioned its existence. To suppress the fact, if known to him, would have been exceedingly improper. It is difficult to believe that Dr. Koch would have called his cholera micro-organism the comma bacillus if at the time he had been acquainted with another comma bacillus frequently present in the mouths of healthy persons. Yet Dr. Koch, in reply to Dr. Lewis, states that a comma bacillus of the month has been long well known. I venture to say that it has not been long known to Dr. Koch. He also states that the comma bacillus of the month behaves differently when cultivated on gelatine from the cholera comma bacillus. At what date did Dr. Koch make experiments showing that difference? I cannot for my own part attach much importance to those experiments till I know when they were made and the exact details connected with them.

As to the identity of the forms of comma bacillus obtained from cholera patients' intestines and from the healthy human mouth, I do not hesitate to say, from my own examination of them, that it is complete.

4. Messrs. Finkler and Fryer, of Bonn, have found in the dejecta of patients suffering from acute diarrhoea that there is a comma bacillus present identical in form with Koch's comma bacillus. They have forwarded specimens to Dr. Koch, who in the article translated in your columns endeavours to dismiss the observations of these gentlemen by statements which refer to his examination of the specimens sent to him. Dr. Koch states that the bacilli sent by Messrs. Finkler and Fryer were "slightly crooked or lemon-

shaped." I have also had the opportunity of examining a preparation sent to this country by Messrs. Finkler and Fryer and of comparing them with the comma bacillus (so called by Koch) from cholera patients, and I entirely disagree with Dr. Koch's statements.

The preparation exhibited a great number of comma bacilli, differing only from those obtained from cholera cases in the very smallest degree—namely, in being a very little larger. Messrs. Finkler and Fryer have recently visited Genoa, in order to compare their comma bacillus on the spot with comma bacilli obtained from cholera patients, and they report (since the publication of Dr. Koch's answer to his critics) that "they have fully established the identity of the comma bacillus in the two cases. They find (as most bacteriologists who do not accept Dr. Koch's peculiar views would expect them to find) that the comma bacillus of cholera varies in size and somewhat in form, according to the conditions under which it is cultivated. Dr. Koch tells us, in reference to the observation of Messrs. Finkler and Fryer, that he has examined cases of diarrhoea and dysentery, but has found no organisms which could be confounded with cholera bacilli. In this connexion it is exceedingly important to state, what Dr. Koch omits to state—viz., that he has also examined many cases of true Asiatic cholera without (according to his official report) finding the comma bacillus.

5. Lastly, it is a matter of extreme significance in regard to Dr. Koch's arbitrary selection of a "comma-shaped bacillus" as the cause of cholera, that he has entirely omitted to reply to the grave charge which is made against him by Dr. Lewis of having selected when in Egypt a straight bacillus, "similar to that of glanders," as the probable cause of cholera, and of having subsequently when in India abandoned this straight bacillus in favour of the comma-shaped bacillus.

Dr. Lewis bases his charge against Dr. Koch upon the plain and unmistakable words of Dr. Koch's series of reports. The fact that the bacillus which Dr. Koch chose to select as the cholera germ when in Egypt is a different form from that which he elevated to this dignity when in India is beyond doubt or denial. There is nothing to be said about this change of opinion, except that it is a pity that Dr. Koch was not more careful before declaring his earlier views. What, however, is very serious and likely to shake all belief in the accuracy of Dr. Koch's statements is this—viz., that he has never himself explicitly confessed that he has changed his view as to the particular organism responsible for cholera. Not only has he omitted to confess his abandonment of the Egyptian bacillus, but he has directly and intentionally spoken in his later reports of the straight bacillus observed by him in Egypt as though it were the same semi-circular or comma bacillus subsequently studied by him in India. I am, if necessary, give full quotations from Dr. Koch's reports which establish beyond a shadow of doubt that he has in this way shifted his ground, and at the same time concealed the fact from those to whom his official report is addressed. In his report from Alexandria, September 17, 1883, he says:—"These bacteria are rod-shaped, and belong accordingly to the genus bacillus; they resemble most nearly in size and form the bacilli found in glanders" (which are straight). In his report from Calcutta, dated January 9, 1884, he says:—"The microscopic examination demonstrated the presence of the same bacilli in the cholera intestine as had been found in Egypt." In a further report, dated February 2, 1884, we at last get the following remarkable statement:—"The bacilli are not quite rectilinear, like other bacilli, but slightly curved like a comma. The curvature is sometimes sufficient to give the bacillus a semi-circular form."

Apart from our judgment as to his want of candour in omitting to give full explanation as to this change of view, our estimate of the value of Dr. Koch's theories cannot be very high when we find that he assigns great importance to a minute difference in the thickness of semi-circular comma bacilli to-day, when opposing Lewis, Finkler, and Fryer, while less than a year ago, in the reports which he has not modified or withdrawn, he based his whole theory of cholera causation upon the identity of a straight, rod-shaped bacillus with a semi-circular comma bacillus (really a segment of a spirillum).

Let me say, in conclusion, that I have ventured to write thus fully and frankly on this subject because it appears to me that Dr. Koch, by his reckless proceedings, is doing two great public wrongs—first, he is destroying the basis of a reasonable faith in the work of scientific investigators; and, secondly, he is placing the public health in danger by using his official position in order to propagate unproved and probably erroneous conclusions as to the cause of a deadly scourge.

I am, Sir, yours faithfully,
E. RAY LANKESTER, M.A., F.R.S.

November 13.

1884. 11

*Fac. simile of letter
from General Gordon*

*Fac. simile of an
Arabic letter from Genl
Gordon at Khartoum
June 22^d L the
Mudie B Dongola*

13 April 1885

OBITUARY.

We regret to record the death of Lord Selkirk, which occurred on Saturday morning at his residence, St. Mary's Isle, Kirkcubright. The Right Hon. Dunbar James Douglas, Earl of Selkirk and Baron Daer and Shortleuch, in the Peerage of Scotland, was the only son of Thomas, fifth earl, by his union with Jean, last surviving daughter of the late Mr. James Wedderburn Colville, of Ochiltree, Fifeshire. He was born on the 23d of April, 1809, and succeeded to the family honours on the death of his father in April, 1820. His lordship was educated at Eton, and graduated at Christ Church, Oxford, taking his bachelor's degree in 1830 as a first-class in mathematics, and proceeding M.A. in due course. He had been a representative peer for Scotland since 1831. In 1844 he was appointed Lieutenant and Sheriff Principal of the Stewartry of Kirkcubright. He was keeper of the Great Seal of Scotland from August till December, 1852, and he was re-appointed to that office in April, 1858. Lord Selkirk, who was a Fellow of the Royal Society, married, in 1878, Cecily Louisa, second daughter of the late Sir Philip de Malpas Grey-Egerton, M.P., of Egerton and Oulten, Cheshire, but has left no issue. The first Earl of Selkirk, upon whom the title was conferred in 1646, was the eldest son of the first Marquis of Douglas, and was afterwards created Duke of Hamilton for life, when he resigned the earldom of Selkirk and barony of Daer and Shortleuch into the hands of the King, who conferred those honours by a new patent, but with the original precedence, upon his grace's second son. According to "Lodge's Peerage," the title now becomes extinct.

Cholera seems to hang about France and Spain in a fashion which suggests the likelihood of its again breaking out in an epidemic form as soon as warmer weather comes. A week ago there was a sudden outburst at Tarifa, on the Straits of Gibraltar, and in a single day there were forty cases among a very small community. We do not know what has been the subsequent progress of the disease, but as most of the Spanish towns are very filthy, and their sanitary condition execrable, we are prepared to hear that by this time it has caused a very considerable mortality. Moreover, cases continue to show themselves in the French Department of the Finistère, which is so near to our own shores that the fact has a special significance for us. Since the beginning of December there have been between seven and eight hundred cases of cholera in two or three small towns near Quimper, at the head of the Bay of Biscay; and a few have occurred in Brest itself, some miles further northward. The outbreak which seemed at one time to be threatening in Algiers, has apparently come to nothing, but in the Adriatic there have recently been cases both at Venice and at Trieste. According to all precedent, cholera ought to have left Western Europe long ago, but it is still slumbering at a good many different points, and if it becomes epidemic next summer, and takes a northward course, our sanitary defences may easily be threatened more seriously than on any recent occasion when it has been prevalent on the Continent. As regards London itself, the Corporation has organised a thoroughly-efficient system for the medical inspection of ships and for the immediate transfer of infected patients to hospital. But there are many of our ports where very little attention is paid to such matters, and, what is worse, where the drainage and water supply are so defective that if cholera were once introduced it would have a good chance of spreading. The most serious danger to the metropolis might arise if cholera came to be prevalent in the Thames Valley, above the intakes of the water companies. A great deal of nonsense has been talked as to the badness of the London supplies from the Thames and Lea. Dr. FRANKLAND once had the hardihood to assert that "a spoonful of typhoidal sewage put into the Thames at Oxford may poison half London," the best answer to which is that a good many spoonfuls of sewage of every kind have been and are constantly put into the Thames, and yet, though four millions of persons have been drinking this poison for years, not only is London one of the healthiest cities of the world, but the diseases which are most affected by water are those which show the greatest diminution. What with the oxidation caused by the flow of water, and the amount of filtering which is now done by the companies, we have the best reason—that of experience—for believing that the water which Londoners drink is for the most part exceedingly good. But we must remember that cholera, more than any other disease, has the faculty of polluting water to a dangerous extent. In almost all the outbreaks which have occurred of late years the chief mode of spread has been by water. One very striking illustration of this has recently been received from Japan, where there

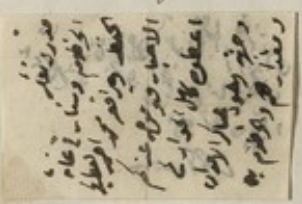
THE SALVATION ARMY.

...for the improvement of the town, desired the prisoners, a
...was engaged there, to show him the works. It is
...dicated him to a room, called him to the room, and
...mitted the robbery. Mr. Justice Manisty sentenced
...ng to 12 months hard labour, remarking that if more
...had been used he would have ordered him to be
...ed. The learned judge, commenting on other cases, expressed
...the opinion that for frequent offenders sentences must
...crime.
...made more severe, light sentences only inducing others

...time and ordered to be referred
...three and ordered to be referred

*Fac-simile of letter
from General Gordon*

(Reverse side)
 Mudir of Dongola 8000 men
 Kartoum & Samaar and the Nile
 in perfect security is rapidly
 & Mahomed Alimeud rising on
 carries this to give arrival of
 you news & on his bearer give
 reaching you give him 100 reals
 him all the news mys duck from
 as to the direction the state
 and position of G^l C^g Gordon
 the relieving force Shabou
 and their number 28th
 & as for Khartoum
 there are 22nd June 1884
 in it



*The above is a translation of General
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time and ordered to be referred

18 September 1855

SIR GEORGE UDNY YULE, C.B., K.C.S.I.
IN MEMORIAM.

27
18
18 Jan. 1886

THE DEATH OF JUMBO.

PHILADELPHIA, SEPT. 17.

Jumbo's death has been followed by long obituary notices of him in the American newspapers. The details of the accident are as follow :—The managers of Barnum's show were placing 31 elephants on a railway train at St. Thomas, Ontario, on Tuesday night, for removal to the next town. All the beasts had been loaded except Jumbo and Tom Thumb, who were walking along the track to their coaches when a goods train came along behind them. The driver whistled and put on the brakes, but the line being on a down grade he was unable to stop the train. The elephants' keeper, noticing the danger, made Jumbo run, meanwhile trying to get him to step aside from the track. The cowcatcher of the locomotive however, caught Tom Thumb, broke his left hind-leg, and threw him over into a ditch alongside the rails, which were on an embankment.

The locomotive then ran into Jumbo. His body stopped the train and threw the locomotive and two cars off the track. He was struck on the hind legs by the cowcatcher and, with a loud roar of pain, fell. The locomotive passed along his back, inflicting terrible bruises. The elephant, with the wrecked train, was pushed along for some distance. He lived for about 15 minutes, and lay quietly expiring while efforts were made to haul him from under the wreck. Large cables were attached to him, 100 men pulling them, while an additional force pushed him with bars, planks, and levers from behind. After half-an-hour's labour they got his body out, working by the light of flaming torches. His keeper, who had accompanied him from London, was greatly affected, and lay on the corpse weeping.

Many thousands of people visited the scene yesterday. Jumbo's hide will be preserved and stuffed and sent to Tuft's College, Massachusetts. The skeleton will go to the National Museum in Washington.

Sir George Yule died on Wednesday morning at Bayswater, of internal injuries received in a fall on the icy pavement five days before. He was born at Inveresk, near Edinburgh, in 1813, the eldest son of Major William Yule, a retired Indian officer, known in the small circle of Orientalists of those days as no mean Persian scholar, and whose collection of MSS.—characterized by Dr. Rien, in his Persian Catalogue, as "of considerable extent and great value"—was presented to the British Museum by Sir George and his brothers (1847-50).

George Yule at sixteen entered Haileybury, and two years later passed out in the Bengal Civil Service. His work for a quarter of a century was in the populous but obscure districts of Eastern Bengal. He gradually became known to the Government for his activity and good sense, but won a far wider reputation as a mighty hunter, alike with hog-spear and double-barrel. Thirty years ago the roll of his slain tigers exceeded four hundred, some of them of special fame; e.g., one of the biggest on the roll he encountered on foot near Bogra, in a grass-patch. The brute in his spring was shot through the nose, but knocked Yule down, sending his gun flying in two pieces. It then stood astride over him, dropping blood on his chest, turned aside, and died. For a long time after he used to dream of this beast. For some years he and a few friends used annually to visit the plains of the Brahmaputra, near the Garrow Hills—an entirely virgin country then, and swarming with large game. Yule used to describe his once seeing seven rhinoceroses at once on the great plain, besides herds of wild buffalo, and deer of several kinds. One of the party started the theory that Noah's Ark had been shipwrecked there!

Yule was first called from his useful obscurity in 1856. The year before, the Sonthals in insurrection disturbed the long unbroken peace of the Delta. These were a numerous non-Aryan, uncivilized, but industrious race, driven wild by local mismanagement, and the oppressions of Hindoo usurers acting through the regulation courts. After the suppression of their rising, Yule was selected by Sir F. Halliday, who knew his man, to be Commissioner of the Bhagulpoor Division, containing some 6,000,000 souls, and embracing the hill country of the Sonthals. He obtained sanction to a code for the latter which removed these people entirely from the court system, and its tribe of leeches, and abolished all intermediaries between the Sahib and the Sonthal peasant. Through these measures, and his personal influence, aided by picked assistants, he was able to effect with extraordinary rapidity not only their entire pacification, but such a beneficial change in their material condition that they have risen from a state of barbarous penury to comparative prosperity and comfort.

Mr. Yule was thus engaged when the Mutiny broke out, and it soon made itself felt in the districts under him. To its suppression within his limits he addressed himself with characteristic vigour. Thoroughly trusted by every class—by his Government, by those under him, by planters and by zemindars—he organized a little force comprising a small detachment of the 5th Regiment, a party of English sailors, mounted volunteers from the districts, etc., and of this he became practically the captain. Elephants were collected from all quarters to spare the legs of his infantry and sailors; while dog-carts were turned into limbers for the small three-pounders of the seamen. And with this little army he scoured the trans-Gangetic districts, leading it against bodies of the mutineers, routing them on more than one occasion, and out-manoeuvring them by his astonishing marches, till he succeeded in driving them across the Nepal frontier. No part of Bengal was at any time in such danger, and nowhere was the danger more speedily and completely averted.

After this Mr. Yule served for two or three years as Chief Commissioner of Oudh; and for four or five as Resident at Hyderabad. Everywhere he showed the same characteristic—firm but benignant justice. Everywhere he gained the lasting attachment of all with whom he had intimate dealings—except of tigers and scoundrels. He was in those days the only man to whom Sir Jung Bahadur conceded leave to shoot within his frontier. So also at Hyderabad he won the enduring friendship of Sir Salar Jung.

From Hyderabad he was promoted to the Governor-General's Council; but he was hardly in his place there. Few with his opportunities had shown more the gift of ruling men by personal influence; but this government in council was quite another matter. And under the sedentary life his health broke down. He retired after about a year of Simla (1869).

At home he was unknown to "London society," and sought no public employment. But he was the friend and unwearied helper of those who needed help, especially of old Indians in indifferent circumstances. Of rare unselfishness and sweet nature, single in mind and motive, fearing God and knowing no other fear, he was regarded by a large number of people with admiring affection. He was sometimes impulsive; but his impulse rarely led him into error.

We may finish this sketch in words of Sir F. Halliday: "He was in aspect, as in mind, mild and unassuming." "He was in

Table with financial data, including interest rates and percentages.

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Times May 9. 1886

THE GORDON BOYS' HOME.

It will be seen from a report in another column that a dinner of unusually representative character took place last night to formally inaugurate a boys' home that will commemorate the universal regret felt for the hero who died for his country at Khartoum. Presided over by the Prince of Wales, and including in the list of guests men of all shades of politics, of religious views, and of every rank and station in society, a more representative gathering probably was never assembled. A good deal was said about the scheme at the time when it was wisely suggested that the memorial should take the shape it has assumed; but, unhappily, Gordon's honoured name was then the shuttlecock of party, and subscriptions, which had begun to flow in freely, were seriously checked. Lord Napier of Magdala, who was chairman of the Executive Committee, with an able and indefatigable vice-chairman in the person of General Higginson, lately in command of the home district, were naturally discouraged at the turn affairs had taken; but they had a wise adviser in the Prince of Wales, who recommended that political feeling should be allowed to expend itself at the general election, that a fresh start should be made in the spring, and that he would personally make an appeal when party feeling and prejudice had subsided. The Executive gladly accepted the Prince's offer, without, however, relaxing their own exertions. Representative men of all kinds were approached, like Mr. Samuel Morley amongst Non-conformists, and the result has been successful to an extent which is best conceived by reading the list of guests and the announcement of subscriptions. It is most gratifying to the promoters of the scheme that it has been warmly accepted and supported by ladies, one of whom has already subscribed £5,000, with something very like the indication of an intention to repeat her munificent donation. Operations have already been begun at Fort Wallington, near Portsmouth, and Her Majesty's Government have granted at a nominal rental some ground near Baginbun, where it is hoped that before many months are over 120 boys will be located in a position easily visited by metropolitan philanthropists.

The education and training is of a military character, not because it is intended or supposed that the bulk of the boys will enter the army, but because long experience has shown that when you have to deal with lads over fourteen, who show no disposition to settle down to trade, the only way to instil the virtues of obedience and industry, and give them a chance of succeeding as men, is to enforce military discipline. The committee do not intend to dictate in any way the line of life their proteges should adopt; all that they will be careful to do is to see that the training which is given shall fit the recipients to succeed as colonists, or as industrious citizens at home. Self-reliance will be specially cultivated, and the principles which guided Gordon in his work in the same direction will naturally occupy the leading position in the programme.

Cape Times June 15. 1886

DEATH OF DR. EBDEN.

Dr. Henry Anderson Ebden died yesterday morning at his residence, Rondebosch. Formerly in the Bengal Medical Establishment of the Hon East India Company's Service, Dr. Ebden has practised his profession for many years in this Colony, naturally attracted to Rondebosch, where his father, the late Hon J B Ebden, lived, and his brother, the Hon Alfred Ebden, now dwells. As President of the Medical Committee, Dr Ebden was the official head of his profession in this country. He was keenly interested in all professional questions, especially in the matter of hospitals. At his own expense, wholly or to a great extent, he maintained for some time a cottage hospital, an institution of which there is great need in many parts of this country. As a consistent and devoted churchman, Dr

Ebden will be greatly missed both in the diocese and in the parish of Rondebosch, where—as indeed wherever he was known—he was held universally in the highest esteem. The funeral procession will leave Haughley at half-past three o'clock this afternoon for St Paul's Church, Rondebosch, whence it will proceed to Rondebosch Cemetery.

Cape Argus June 21. 1886.

THE LATE DR. EBDEN.

At St. Paul's Church, Rondebosch, yesterday evening, the rector (the Rev. Canon Ogilvie) preached from 2nd Timothy, iv, verses 6 to 8: "For I am now ready to be offered, and the time of my departure is at hand. I have fought a good fight, I have finished my course, and have kept the faith. Henceforth there is laid up for me a crown of righteousness." The reverend preacher contrasted the scriptural records of the Old and New Testament Saints, pointing out that the deaths and surrounding circumstances and affecting incidents of the closing career of the Old Testament Saints were fully detailed, as if, their parts played in the religious history of their times and nations, their special work seemed finished with their lives. But it was a striking fact that the contrary was the case as regards the great Saints of the New Testament—the Apostles. Their departure from earth was passed over in silence. The reason for this was plain. The Old Testament Saints were raised up for special work, they came like messengers, delivered their message, and went away; there was no immediate continuity in their work. But in the Church of Christ it was different; though one servant of God after another was given rest after his toil, there was no break, the work was continuous. It should be a great source of consolation to us (continued the preacher), and a deep cause for thankfulness, when one we have loved has been taken over the veil and bereft from us for a time, that we know and can say of him, "He has fought a good fight." Our beloved friend whom on Tuesday last we bore to his last resting-place, was one whose active and beneficent life was daily before us. His loss to us seems irreparable. His labour for the Church was unremitting; he freely offered his time, his talents, and his work. No discouragement was allowed for a moment to check his course of consistent care for God's House and his love for God's service. To us clergy he was an invaluable and ready helper. But more than this. Unostentatiously, and as a work of love rather than of duty, for years he cultivated that part of religion blessed with the name of pure, I mean the visiting of the fatherless and the widows in their affliction. None came to him with a real cause of sorrow or difficulty who did not at once claim and receive his kind and Christian sympathy and ready help. In trials and troubles—for he had a share of these—he bore himself humbly, with chastened spirit and with resignation. A firm and true friend, a consistent Christian, a devout worshipper, a man of undoubted and undebating faith in our holy

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Times January 19. 1887

FUNERAL OF LORD IDDESLEIGH.

The remains of the late Earl of Iddesleigh were yesterday committed to the grave in the churchyard at Upton Pynes in the presence of a large gathering. It had been the desire of the family that the funeral should be as private as possible; but, although most of those present attended as deputations, the little church and graveyard were crowded to overflowing, and the road from Pynes thither was thickly lined throughout the whole of the distance as the funeral procession passed, many of those present standing for hours in a thick, penetrating rain.

It was uncertain down to within a few hours of the funeral whether or not the Countess of Iddesleigh would be able to carry out her intention of following the remains of her husband to the grave. Happily her strength rallied sufficiently to allow her to do so, but it was evident that the ordeal was a most severe one. The Countess travelled from London to Exeter by the Great Western train arriving at St. David's Station at 4 o'clock on Monday, the Hon. H. S. Northcote and Mrs. Northcote accompanying her. Viscount St. Cyres and the Hon. Amyas Northcote were in waiting to receive her ladyship. The arrival at Pynes of the Countess and her children completed the family circle with one exception, that of the Hon. Hugh Oliver Northcote, who was in New York at the time of Lord Iddesleigh's death. The Hon. A. Saumarez, Lord Iddesleigh's late private secretary, came down in the same train as the Countess, and proceeded to Pynes. The members of the family assembled at Pynes on the eve of the funeral included—Viscount and Lady St. Cyres, the Hon. H. S. and Mrs. Northcote, Mr. Reginald and Lady Agnes Macleod, the Hon. and Rev. J. S. and Mrs. Northcote, the Hon. Amyas Northcote, Mr. Stafford H. Northcote, and Miss Northcote, Lord and Lady Hobhouse, and Mr. W. Farrer.

Her Majesty the Queen was represented at the funeral by Her Equerry, Sir John M'Neill, who arrived at Exeter on Monday evening, accompanied by Sir George Stephenson, Mr. Henry Northcote's father-in-law. The Queen sent by the hand of Sir John M'Neill a wreath composed of immortelles and bay leaves, attached to it being a card bearing, in Her Majesty's own handwriting, the words:—

"A mark of affectionate respect and sincere friendship from VICTORIA R. and I."

Sir John M'Neill proceeded to Pynes yesterday afternoon shortly before the funeral, and himself deposited the Queen's wreath on the coffin, together with a precisely similar one from the Prince and Princess Henry of Battenberg, on which was inscribed, "A mark of respect from Prince and Princess Henry of Battenberg." Wreaths from the Prince and Princess of Wales bore the words, "A last token of sincere friendship and regard;" from the Princess Christian, "A mark of sincere regard and esteem;" from the Princess Frederica, "With warmest affection and very sincere sympathy." A wreath was sent from the Foreign Office, to which was attached a card with the words, "A mark of respect and admiration from those who had the privilege of serving under Lord Iddesleigh at the Foreign Office." The Bulgarian Delegates also sent a floral tribute, inscribed, "A wreath from the grateful Bulgarians who recently visited Lord Iddesleigh at Pynes." Wreaths were also placed on the coffin as it lay in the drawing room before the funeral by the members of the family, the tenantry, and the household ser-

vants. In all about 350 wreaths were received at Pynes. Among others was one from the Inland Revenue Department, of which Viscount St. Cyres is Vice-Chairman. Sir George Elliot sent a crown, and the Hon. T. Bruce a cross formed of red tulips—a flower of which Lord Iddesleigh is said to have been very fond. Lady Wolff sent a wreath composed of violets. The Edinburgh University Conservative Association sent a handsome wreath. A tribute from the Scottish Conservative Club took the form of a large floral cross. The Cardiff and Brecon Conservative Associations sent wreaths by the hands of specially-appointed deputies, who arrived at Pynes on Monday, and were invited to place them in the drawing room; and there were wreaths from a large number of Conservative associations, some of which are detailed below. Wreaths were also received from the Marchioness of Salisbury, who also wrote a very kindly letter, Lady Cranbrook, Baron H. de Worms, Sir William and Lady Harcourt, Lord and Lady Clinton, the Earl and Countess of Erne, Lady Simpson, Lady Haldon, Sir Redvers and Lady Buller, Lady Dashwood, Lady Frere, Lady M'Garel-Hogg, Lord and Lady Poltimore, the Hon. Mark and Lady Gertrude Rolle, Sir William and Lady Pauncefoot, Sir Matthew White Ridley, Lady Campbell, Lady Acland Hood, Baroness Burdett Coutts, Lady Bateman Scott, Viscount and Viscountess Sidmouth, Lord and Lady Egerton of Tatton, Miss Selina Northcote, Miss Evelyn and Miss Christine Fane, Sir George and Lady Stucley, Lady Gordon, and Lady Lamson. The school children at Pynes sent a very beautiful wreath with the inscription, "From the children of Upton Pynes School, who sincerely mourn the loss of him who loved them." A wreath of primroses was sent by Nellie Hooper, the Plymouth flower-girl. A small box of primroses arrived by post without name, bearing the words "A humble offering, with deepest sympathy." There were also wreaths from the Exeter Post-office Telegraph Staff and the servants at the Great Western and South-Western Railway stations.

Among the contributions from political, municipal, and other bodies were wreaths sent by the Mayor of Stamford, a constituency represented by the late Earl in an early stage of his career, the Mayor and citizens of Exeter, the Conservatives of Exeter, the Conservative Associations of Plymouth, the Dawlish Local Board, the Beaconsfield Club (Exeter), the Literary Society of which the deceased Earl was president, the Ramsgate Conservative Association (brought by a deputation), the South Molton Conservative Club, the Torquay Constitutional Association, the Rutland Habitation of the Primrose League (Bakewell), the Chester Conservative Association, the Barnstaple Liberal and Conservative Associations, the Barnstaple Primrose League, the Penarth Conservative Club, the Rochester Constitutional Association, the Trowbridge Constitutional Club, the Cardiff Liberal Club, the Malvern Habitation of the Primrose League, the Leeds County Conservative Club, the Salisbury Club, Henley-on-Thames (opened by Lord Iddesleigh in October, 1885), the Gwent (Winchester) Habitation of the Primrose League, the Northampton (Eastend) Conservative Working Men's Club, the Kingsbridge Habitation of the Primrose League, the Leeds Borough Conservative Association, the Civil Service Supply Association, the Bristol Working Men's Conservative Association, and the Dartmouth Constitutional Club.

Long before the whole of the three or four hundred wreaths, crosses, and other floral tributes had reached Pynes the whole of the space available in the drawing-room had been occupied and the further arrivals had to be deposited in the gallery and entrance-hall. Before the starting of the funeral cortege, a large number of the wreaths were removed to the churchyard and placed in the vault, the walls, entrance, railings, and grassplot over the vault being completely covered with them.

Immediately over the entrance to the vault was placed a tribute from the Conservative party of Exeter, one of the most elaborate of the whole. The design was that of a Maltese cross and wreath combined, with an arm lily for the centre of the cross, and the Earl's motto in white flowers set in ferns and moss formed the wreath. This was flanked on either side by crosses formed of the choicest white flowers, intermingled with ferns—one from Lord and Lady Poltimore, another from Mr. H. M. Imbert Terry, "In grateful remembrance," while a third device was that from the Winchester Primrose League. The top of the vault was covered with wreaths and crosses. Among these was conspicuous a wreath of immortelles sent by Lady Gordon, which had been hung on the white marble cross erected to the memory of Edward Louis, sixth son of the late Earl, who died in October, 1872, at the age of 15, and was the first of the family to find a resting-place in the vault.

The wreath sent by the Baroness Burdett Coutts found a place near the cross. It bore the words "A last tribute of affectionate respect and admiration of a great public example and career." Within the vault a place was reserved on the wall at the far end for the reception of wreaths from the Queen and other members of the Royal Family. The Marchioness of Salisbury's tribute was hung to the right of this space, and near by were to be seen those from the Edinburgh University Club and the Mayor and citizens of Exeter.

It had been arranged that the funeral procession should reach the church at 3 o'clock, at which hour a special service was also to be held in Exeter Cathedral. Pynes being about a mile from the parish church, it was necessary that the cortege should leave that place at a quarter past 2, and this was adhered to punctually, the arrangements, under the direction of Mr. Osmond (Lord Iddesleigh's steward), being so well devised that not the slightest confusion, hurry, or delay resulted. Only parishioners and privileged persons furnished with cards of admission were allowed to enter the church before the arrival of the mourners.

The funeral procession left the mansion in the following order:—Police superintendents mounted; the undertaker; the tenantry; a valet bearing a cushion with the orders of the late Earl; the hearse, drawn by four horses; mourning carriages; the late Earl's private carriage; the Queen's Equerry; the Sheriff of Devon (Mr. H. B. Mildmay); private carriages to the number of 70. The staff of the 4th Battalion Devonshire Regiment formed a guard from the lych gate to the church porch, and the 1st Devon Rifle Volunteers, under the command of Lieutenant-Colonel Walrond, M.P., lined the roadway outside.

The body was borne into the church and afterwards to the sepulchre by eight of the tenantry—Messrs. A. James (Iddesleigh), G. Snell (Dowland), J. Huggins and G. Hollier (Upton Pyne), E. Osmond, jun., and J. Davy (Bramford Speke), J. Leigh (Kennerleigh), and W. Tuckett (Newton St. Cyres). The Countess was accompanied by Viscount St. Cyres, and then followed the Hon. H. S. Northcote, C.B., M.P., Lady A. M'Leod, the Hon. and Rev. J. S. Northcote, the Hon. and Rev. A. F. Northcote, the Hon. A. S. Northcote, Lady Shelley, Viscountess St. Cyres, Mrs. H. S. Northcote, Mr. Stafford Northcote, Miss Rosalind Lucy Northcote, Mrs. Humphrey, Mr. E. F. Shelley, Mr. M'Leod, Mrs. J. S. Northcote, Mrs. A. F. Northcote, Lord and Lady Hobhouse, Mr. W. Farrer, Mr. Gordon Northcote, the Hon. A. Saumarez, Mr. J. Northcote, Sir John M'Neill (the Queen's representative), &c. Many who followed were unable to reach the churchyard in time for the service owing to the length of the procession, but among others who attended or sent their carriages were—Colonel Fremantle, Colonel Edgecombe, Mr. Tremayne,

Mr. W. Cotton, Mr. Edward Johnson, the Dean of Exeter, Colonel Garratt, Archdeacon Sanders, Captain DeCourcy Hamilton, Colonel Colley, Captain Curzon, Dr. Nankivell, Mr. A. Ward, and Mr. Brutton Ford, Liberal agent for Exeter.

The church was entirely free from funeral draperies, having been left precisely as it was on the last Sunday on which the late Earl attended and took part in the service. It is one of the oldest churches in the county, dating from the Early English period. There is little in it to attract attention, and it will barely afford accommodation for 200 worshippers. The mourners began to arrive shortly after 2, and by 3 o'clock the church was occupied by a congregation which included most of the nobility of Devon and representatives from county bodies and political associations. Among others present were the Lord Chief Justice of England, the Earl of Mount Edgcombe, the Earl of Devon, the Earl of Portsmouth, Lord Morley, Lord Fortescue, Lord Clinton, Lord Poltimore, Lord Clifford, Lord Dunboyno, the Hon. Mark and Lady Gertrude Rolle, Viscount Ebrington, M.P., Viscount Lymington, M.P., the Hon. L. A. Addington, the Hon. Bernard Coleridge, M.P., the Hon. Stephen Coleridge, Sir Thomas Dyke Acland, Sir John Duckworth, Sir John Kennaway, M.P., Sir George Stucley, Sir John Shelley, Sir John Walrond, Sir Massey Lopes, Sir John Phear, Lieut-Col. Stucley, Major-General Drew, Lieut-Col. Tanner, Colonel Courtenay, Major Wyatt Edgell, the Revs. W. D. Pitman, Aveton Gifford, Gerald M. L. Reade, J. Jane, G. Hadow (Tidcombe), D. M. Owen (Christow), and W. P. Alford; Messrs. A. Mills, of Bradshaw, J. H. Ley, A. H. A. Hamilton, T. Kekewich, A. Champenowne, J. C. Moore Stevens, C. Marshall Hole, H. Michel acre (Clerk of the Peace for Devon), T. J. Bremridge (Lord Iddesleigh's late political agent), E. A. Sanders, (president of the Exeter Conservative Association), H. M. Imbert Terry, president of the Exeter Working Men's Conservative Union), W. Pring and H. Willecks (Exeter Constitutional Club), R. M. H. Baker (Newton Abbot Conservative Association), C. R. Collins (Teignmouth Conservative Association), H. F. Loosemore (Tiverton Conservative Association), E. Mallock, M.P., J. J. Mathews, E. H. Board, and Harding (Torquay Conservative Association), Full, G. Newcombe, and T. Brown (Ellacombe Conservative Association), the Rev. J. Bowden, Messrs. E. Shapland, D. and C. Bush, W. Sanders, and W. G. Bird (South Molton Conservative Association), W. H. Kitson, H. Manley, C. N. Hill, W. H. Hawker (Chairman of the Plymouth Conservative Association), W. King (Secretary of the Plymouth Conservative Association), J. P. Rogers and J. Griffin (Plymouth Working Men's Constitutional Union), Lieut-Col. Amery (Portreeve of Ashburton, the borough represented by Sir John Northcote in the Long Parliament), G. J. Cutcliffe (Dawlish Conservative Association), E. Windcutt (Under-Sheriff of Devon, and Town Clerk of Totnes), W. J. Batteshill (acting Under-Sheriff), J. D. Winter (secretary of Devon Agricultural Association), J. P. Oldreive and R. Rowe (Dartmouth Conservative Association), and others.

As the procession passed slowly along the crowded roadway heads were bared in spite of the thick, misty rain, and every mark of respectful sorrow was displayed by the crowd, many of whom had driven or walked long distances in order to be witnesses of the funeral. Shortly after 3 o'clock the bell of the parish church, which had been tolling from the time the procession started, ceased ringing, and those within the building knew that the procession was close at hand. The Bishop of Exeter, leaving the vestry with the officiating clergymen, took a seat in the chancel. The body was met at the Lych-gate by the Rev. F. J. Coleridge, rector of Cadbury and the Hon. and Rev. F. G. Polham, rector of Lambeth and former rector of Upton Pyne. Mr. Coleridge

pronounced the opening sentences of the burial service, and the coffin, borne under hand by a party of the deceased's tenantry, reached the door just as the officiating clergyman read the sentence, "The Lord gave, the Lord hath taken away; blessed be the name of the Lord." The coffin, upon the lid of which were heaped the wreaths sent by the Queen and other distinguished personages, was set down in the nave near the west door, through which it was subsequently borne. The choir, assisted by a few friends from Exeter (members of the Western Counties Musical Association) sang Hymn 400 from "Hymns Ancient and Modern," "Now the labourer's task is o'er." When all had taken their places the 39th Psalm was read by the Rev. F. J. Coleridge, and the lesson by the Hon. and Rev. F. G. Pelham. The Hymn 221 ("Hymns Ancient and Modern"), "Let saints on earth in concert sing," was followed by a voluntary, during which the bearers resumed their burden and removed the coffin to the vault, where the service was completed by the two officiating clergymen, the Bishop of the Diocese reading the final prayer and pronouncing the Benediction.

After the service had concluded and the members of the family withdrawn, the spectators were permitted to enter the graveyard and take a last look at the vault to which the deceased statesman's remains had been committed. A party of non-commissioned officers of the Devonshire Regiment formed a guard round the grave and prevented any crushing in its immediate neighbourhood.

The civic authorities, representatives of public bodies, the military, and the citizens of Exeter attended a special service in the cathedral at 3 o'clock, and the nave was crowded, while hundreds were turned away because they could not find standing-room. Shortly before 3, a procession was formed outside the Guildhall and proceeded to the cathedral in the following order:—Band of the Devonshire Regiment, Artillery and Engineer Volunteers, the Mayor (Alderman Burch), and the Corporation, members of the Exeter Corporation of the Poor, representatives of other public bodies, band of the Artillery Volunteers. On entering the cathedral, the bands played the "Dead March" in *Saul*.

The service throughout was choral, the anthem, "Blessed are the dead," and the hymn, "Now the labourer's task is o'er," being rendered with great feeling. The service closed with the "Dead March" in *Saul*, on the organ, and a knell was tolled at the same time.

Business in Exeter was almost entirely suspended during the afternoon.

Among the many letters of condolence received by the Countess of Iddesleigh was one from the Queen, couched in the most sympathetic and warm-hearted language, being one of a series which have come either from Her Majesty direct or through the Marchioness of Ely. Baron Solvyns wrote by direction of the King of the Belgians, expressing His Majesty's deep sympathy with the Countess in the loss she had sustained, and mentioning that the King had been personally acquainted with Lord Iddesleigh, and was one of his warmest admirers of his character and talents. Rustem Pasha, the Turkish Ambassador, wrote by command of the Sultan, conveying to the Queen and the Countess of Iddesleigh the deep regret and sorrow with which he had learned the loss of a statesman of such great reputation, and one whose name was respected far beyond the shores of his own country. Rustem Pasha also added an expression of his own sympathy, his official and private relations with the noble Earl having been of the most cordial character. Other members of the Diplomatic Corps also wrote in the same spirit. A letter was received full of kindly sympathy from the Marquis of Salisbury. The Marchioness of Salisbury,

Lady Gwendolen Cecil, Lady Maud Wolmer, the Baroness Burdett-Coutts, Lady Poltimore, and Lady Kennaway were among the many who wrote to the Countess, and her ladyship also received a letter from Mr. Gladstone, while Mrs. Gladstone addressed her godson, the Rev. John Northcote, in terms of the warmest sympathy. The Duke of Cambridge and the Marquis of Lorne wrote to the Hon. Henry Northcote, while the Duke of Northumberland, the Lord Chief Justice, Lord Derby, Sir W. Harcourt, Mr. Childers, Earl Granville, Lord Hampden, Sir James Fergusson, and Mr. Adam Young were among those from whom Viscount St. Cyres received letters of sympathy. The many others who wrote included Mr. James Lowther, Mr. Walter, Lord Stanley of Preston, Mr. W. H. Smith, Lord Arthur Hill, Lord Randolph Churchill, Sir H. Selwin-Ibbetson, Lord Spencer, Lord Leigh, Sir Edward Thornton, Lord Cranbrook, Mr. E. Stanhope, Lord George Hamilton, Sir Lyon Playfair, Lord Cranborne, Lord Beauchamp, Lord Brabourne, Sir John Mowbray, Sir John Rose, Lord John Manners, Lord Cross, Lord Wantage, Mr. Jesse Collings, Lord Burleigh, Mr. Goschen, Mr. Shaw-Lefevre, Lord Denbigh, Lord Mount-Edgumbe, Mr. Mallock, Lord Clifford, the Hon. Mark Rolle, Lord Poltimore, Sir Henry Wrey, the Bishop of Ripon, Lord Aberdare, Lord St. Oswald, Mr. Edward Johnson, Lord Lewisham, Mr. Imbert Terry, Mr. Jackson, M.P., Sir T. D. Acland, Mr. Acland, M.P., Sir J. Walrond, Colonel Walrond, M.P., and Sir G. Stucley.

Viscount St. Cyres, in a letter dated Pynes, January 18, writes:—

I shall be much obliged if you will allow me to make known by this letter the gratification it has afforded to the Countess of Iddesleigh, to myself, and to every member of the family to receive assurances of the deep and affectionate regard entertained for my father by associations of all shades of politics and by other public bodies in every part of the kingdom. Since it is impossible for us to make any individual answer to the innumerable resolutions that have been received, in many cases accompanied by flowers of the greatest beauty, I hope this may be accepted as an acknowledgment of the grateful appreciation with which we have received so many acts of kindness. I would also request those friends to whom it has been beyond our power to reply to accept this assurance of thanks for their kind letters of sympathy.

SERVICE IN WESTMINSTER ABBEY.

While the funeral ceremony was being performed in the quiet Devonshire churchyard, a memorial service was held in Westminster Abbey. The esteem which Lord Iddesleigh had inspired could not be shown more strikingly than it was by the large and representative attendance at this service, when men of widely different positions in life and of antagonistic political views met together to mourn what they felt to be a common loss.

To any one who had not heard that there was to be a special service at the Abbey the scene in its neighbourhood long before 3 o'clock, the appointed hour for the funeral, would have made it apparent that a ceremony of unusual interest was about to take place. The blinds of St. Stephen's Club and of other houses in the near thoroughfares were down. The flag surmounting the tower of St. Margaret's was lowered; funeral bells were being tolled; and worshippers, clad in mourning, were hurrying in unusual numbers to the precincts. The majority of the visitors to the Abbey, having received special tickets of admission, entered by the west cloister doors and were then directed by the vergers to the seats reserved for them in the choir and transepts. To those who had no claim to special accommodation the north transept and part of the nave were open. The former of these portions of the Abbey was crowded; every seat was filled; and soon after the doors had been opened even standing room

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could not be obtained in the gangway which divides the pews. In the nave there was also a considerable number of people, but, it not being possible to view the service from this part of the Abbey, the demand upon its space was naturally not so great. For the representatives of the Royal Family, the members of the Corps Diplomatique, and Her Majesty's Ministers seats were reserved in the choir. The Duke of Cambridge, and Prince Henry of Battenberg, the representative of the Queen, were conducted to places in the Dean's pew. Colonel Clarke, representing the Prince and Princess of Wales; Colonel Colville, representing the Duke and Duchess of Edinburgh; and Sir H. Elphinstone, representing the Duke and Duchess of Connaught, sat on the right of the Dean's stall. The pews between the choir and sacarium, where the nave and transepts meet, were reserved for members of Parliament, and for the deputies of Conservative Associations and other bodies places were found in the south transept.

Among those present were the French Ambassador, the Turkish Ambassador, the Netherlands Minister, the Danish Minister, the Japanese Minister, the Chinese Minister, the Spanish Minister, the Belgian Minister, the Portuguese Minister, the Minister of the United States and Mrs. Phelps, the Greek Minister, the Minister of the Argentine Republic, the Secretary to the Italian Embassy, the Persian Chargé d'Affaires, the Russian Chargé d'Affaires, M. de Hengel Müller, of the Austrian Embassy, Baron de Wedel Jarlsberg, of the Swedish Legation, the Lord Chancellor, the Marquis of Salisbury, Viscount Cranbrook, Viscount Cross, the Home Secretary, Sir M. Hicks-Beach, M.P., Lord Stanley of Preston, Mr. E. Stanhope, M.P., Lord J. Manners, M.P., Sir H. Holland, M.P., Mr. A. Balfour, M.P., Mr. Plunket, M.P., Mr. Baikes, M.P., Sir J. Gorst, M.P., the Lord Mayor, Lord Herschell, Sir J. Fergusson, the Earl of Dunraven, the Attorney-General, the Solicitor-General, Sir H. James, M.P., Mr. Jackson, M.P., Mr. Brodrick, M.P., Lord C. Beresford, M.P., Mr. Mundella, M.P., Mr. A. Morley, M.P., Mr. Whitmore, M.P., the Hon. C. R. Spencer, M.P., Mr. Marriott, M.P., Lord Rowton, Lord Napier of Magdala, Lord Elcho, Mr. S. Herbert, M.P., Mr. Tyssen Amherst, M.P., Mr. P. A. Muntz, M.P., Mr. Richardson-Gardner, M.P., the Earl of Rosslyn, Viscount Hampden, Mr. Akers Douglas, M.P., Mr. Staveley Hill, M.P., Sir J. Mowbray, M.P., Lord Lingen, Viscount Sidmouth, the Earl of Galloway, Mr. Beresford-Hope, M.P., Lord Harris, Earl Percy, the Earl of Northbrook and Lady Emma Baring, Lord Stratheden and Campbell, Mr. Shaw-Lefevre, M.P., Sir E. Lechmere, M.P., the Earl of Limerick, the Marquis of Abergavenny, Sir H. Rietcher, M.P., Earl Bathurst, Lady Coleridge, Mr. Seager Hunt, M.P., Sir Halliday Macartney, Mr. Radcliffe Cooke, M.P., Viscount Cranborne, M.P., Mr. Tomlinson, M.P., Mr. Anderson, M.P., Mrs. Childers and Major Childers, Mr. B. Hubbard, M.P., the Rev. F. Byng, Mr. Vans Agnew, Lord Chetwynd, Mr. A. Fitzroy, Sir W. Phillimore, Sir J. Clarke, Sir Samuel Wilson, Sir C. L. Wyke, Sir T. Thornhill, Mr. J. H. Bagnall, G.M.G., Mr. C. M. Kennedy, C.B., Major-General Brine, Mr. G. Richmond, R.A., Mr. J. Howard, M.P., Mr. Sydney Gedge, M.P., Colonel Donnelly, R.E., Mr. Addison, O.C., M.P., Mr. H. S. Wright, M.P., Colonel Makins, M.P., Mr. C. Ibert, the Rev. Henry White, chaplain of the Chapel Royal, Savoy; the Rev. E. Sheppard, Sub-Dean of the Chapel Royal; Lord Boston, General Goldsworthy, M.P., Mr. R. G. Webster, M.P., Lord Walter Gordon Lennox, Mr. Boord, M.P., Sir Joseph Fayer, Mr. Stuart-Wortley, M.P., Mr. Ernest Noel, Sir H. Maxwell, M.P., Mr. H. L. Farrer, Sir Risdon Bennett, Sir H. Selwin-Ibbetson, M.P., Mr. Manners, Mr. H. Hobbouse, M.P., Lord Weymouth, M.P., Sir P. Currie, Sir Julian Paucetote, Major-General Brackenbury, the Mayor of Stamford, Mr. Cumin, of the Education Department; Sir G. Young, Mr. Gent-Davis, M.P., Mr. J. A. Kempe, Sir Ashley Eden, Sir Lewis Pelly, M.P., Sir Edward Thornton, the Dowager Lady Galway, Mr. J. Hozier, M.P., Mr. Elton, M.P., Mr. Howard Vincent, M.P., the Mar. of Napier, Lady G. Hamilton, Sir Thomas and Lady Barrer, Mr. and Mrs. G. Bartley, Sir F. Lascelles, Lord R. Nevill, Sir Dreo Duckworth, Mr. Laurie, M.P., Sir C. Hartley, K.C.M.G., Mr. Hanbury, M.P., Mr. Gully, Q.C., Mr. W. Leatham Bright, Sir J. and Lady M'Garel-Hogg, Mr. Stephen Coleridge, Mr. W. Balfour, Mr. O. Hall, M.P., Mr. James W. Lowther, Lady Hester Leake, Mrs. Manners Lushington, Sir Julian Denvers, Sir Almon West, chairman of the Board of Inland Revenue; the Archbishop of Middlesex, Sir J. D. Hay, the Dowager Lady Westbury, Mr. G. Greville, Mr. H. Austin Lee, Mr. A. Crum, the Rev. W. J. Jenkins, Mr. H. Longley, Chief Charity Commissioner; Mr. J. G. Fitch, of the Education Department; Sir P. Anderson, Mr. Guy Dawney, Mr. H. W. Hoare, Mrs. Frank Jenne, Sir Rivers Wilson, the Hon. Misses Henniker, Mr. Smith Barry,

Mr. W. Karlake, Q.C., Colonel Hambro, Mr. M. Molyneux, Mr. H. Reeve, Sir R. Herbert, Mr. C. Fremantle, Deputy Master of the Mint; Sir R. Welby, Permanent Secretary to the Treasury; Sir W. H. White, C.B., Sir A. Rollet, M.P., Mrs. H. Mowbray Northcote, Mr. and Mrs. Stafford C. Northcote, Mr. G. C. Northcote, six representatives of the Senatus Academicus of Edinburgh University, of which the deceased Earl was Lord Rector, and representatives of the permanent staffs of the Foreign Office and of the Inland Revenue Department, and of various Conservative associations.

By 3 o'clock, when the service began, the usual deep shadows of the Abbey had been rendered even darker by the prevailing density of the atmosphere, so that it was difficult to discern the contours of objects which were not immediately beneath the rays of the chandeliers. Unseasonable as was this gloom, bearing in mind the time of day, it cannot be denied that it combined fittingly with a ceremony of such sorrowful import. The choir sang the opening sentences of the burial service in procession from the nave to the choir, and then the 39th and 90th Psalms. The Dean, who had been conducted into the sacarium, accompanied by Canon Duckworth, Archdeacon Farrar, Canon Rowell, Canon Furse, and Canon Westcott, next read the special lesson (1 Corinthians xv.) in clear and impressive tones. When he had finished reading the lesson the Dean said:—

We have thus far followed the Burial Service, but now, at its most solemn portion, we must turn aside from it for a time, for not here, but elsewhere, the mortal remains of him whom we are met here to-day to honour are even now—even, we believe, at this moment being consigned by sorrowing friends to their last resting-place—"Earth to earth, ashes to ashes, dust to dust"—in the sure and certain hope of the resurrection to eternal life through Our Lord Jesus Christ. We must fill this interval by other words, other acts of devotion, other acts of faith and prayer. But before doing so, I would ask for a few moments of silent pause which will enable some to travel in thought to a scene at which they are unable to be present, or to remember those who need support in a time of affliction, sorrow, and bereavement.

In compliance with this direction the congregation remained for some few minutes engaged in silent prayer.

The service having been resumed, the *Nunc dimittis* was sung, and the concluding portions of the evening service were intoned by the Precentor. Then followed Spohr's anthem, "Blest are the departed," which was rendered with so perfect an appreciation both of the music and the words that it could not have failed to touch the feelings of the greatest stranger to emotion. Archdeacon Farrar, who is nearly related to the family of the deceased Earl, read the two concluding prayers of the burial service, and afterwards was sung the beautiful hymn beginning, "Now the labourer's task is o'er." The service concluded with the blessing, which was pronounced by the Dean, and then "again the pealing organ heaves its thrilling thunders," the solemn notes of the "Lead March" in *Saul* filling the vast spaces of the building, while the congregation remained in their places for some minutes, mute and reverential.

In connexion with the funeral of the late Earl of Iddesleigh a service was held in St. Giles' Cathedral, Edinburgh, yesterday afternoon at half-past two. The service was under the auspices of the authorities of the University, of which Lord Iddesleigh had been Lord Rector since 1883. The large church was crowded in every part, many persons standing during the service, which lasted for nearly an hour. There were present the Chancellor of the University (Lord President Inglis), the Vice-Chancellor (Principal Sir William Muir), Mr. T. G. Murray, the Rector's Accessor in the University Court, Lord Balfour of Burleigh, the Lord Advocate, as member of Parliament for the University, the majority of the professors, assistant professors, and lecturers, and many graduates, all in academic costume. The students attended in hundreds, filling the transept and the

F. J. and former rector of Upton Pynne. Mr. Coleridge

Times January 19. 1887

Daily Telegraph Sep. 22 1888

greater part of the nave. The general public was also largely represented, and the deepest interest was shown in the proceedings. Two of Lord Iddesleigh's grand-children, daughters of Lady Agnes Leod, were present at the service. The officiating clergymen included the Rev. Dr. Cameron Lees, the Rev. Professor Charteris, the Rev. Professor Taylor, and the Rev. Dr. McGregor, of St. Cuthbert's. The service was almost entirely devotional and choral. Dr. Cameron Lees, however, delivered a short but appreciative and eloquent address, in which he referred to the universal esteem in which the deceased statesman was held, and to the honesty, simplicity, cheerfulness, and stainless purity of his character. As the vast congregation dispersed, the organ played the "Dead March" in *Saul*. The proceedings throughout were of the most impressive character.

In several places in the kingdom flags were raised half-mast, muffled peals tolled, blinds drawn, and shutters closed as tokens of respect.

At the meeting of the Court of Common Council to be held at the Guildhall on Thursday next Mr. William Braham will move the following resolution:—"That this Court is deeply moved by the painfully sudden decease of the Right Hon. the Earl of Iddesleigh, G.C.B., who by his life and work had endeared himself to all classes of the community. Singularly gifted in every good trait of character, he enjoyed the enviable distinction of rendering conspicuous service to his Queen and country, and throughout his honoured life so continued his blameless career that his death calls for universal sympathy and is felt to be a national loss."

The following resolution has been passed at a meeting of the Senatus Academicus of the University of Edinburgh:—"The Senatus Academicus of the University of Edinburgh records its deep sorrow for the death of the Earl of Iddesleigh, the Lord Rector of the University, and its sense of the loss which, in common with the nation, the University has in consequence sustained. By his constant courtesy and kindness, his active and enlightened interest in the affairs of the University, his gracious presence on memorable occasions, and in particular throughout the Tercentenary Festival in 1884, by the beauty and wisdom of his addresses to the students, and his sympathy with their welfare, and, above all, by the great example of his character, the late Lord Rector endeared himself to the whole academic community, and the University will continue to cherish his memory with admiration, gratitude, and affection. The Senatus desires to offer heartfelt sympathy and condolence to the Countess of Iddesleigh, the Earl of Iddesleigh, and the other members of the family of its late Lord Rector, and requests the Principal to send a copy of this minute to the Earl of Iddesleigh."

Sir Albert Rollit, M.P., has received, in reply to a vote of condolence passed at Hull, a letter from Mr. H. S. Northcote in which he says:—"It is a comfort to us to feel that the whole nation are sympathizing in our trouble. We are very grateful to the people of Hull, who have been so good to us. Perhaps you will let them know this. Lord Iddesleigh entertained a sincere regard for yourself personally, and the way in which you mention him will deeply touch Lady Iddesleigh."

TO THE EDITOR OF THE TIMES.

Here I fancied was one of the social thases which falls, and pocket-book, and goes out. The curtain Countess calls her maid, gets her cloak, hat, fuction leaves her, in spite of this threat, the that I will myself inform you of it." As within an hour I will deceive you in turn, and ever I learn that you deceive me, I swear that eye for an eye, a tooth for a tooth; If "Laston, and bear this well in mind, An looking him stoddily in the face, says:— her hands on her husband's shoulders, and he refuses. Then Franchise or Franchillon, putting Riverolles implores him to take her with him, but ball in the new Opera-house. Madame de party are all going together to the first masked at the club, and he at last admits that he and the

THE STANLEY EXPEDITION.
DEATH OF MR. JAMESON.

[REUTER'S TELEGRAM.]

BRUSSELS, SEPT. 21.

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Mr. Jameson was second in command of the expedition with which Major Barttelot started to follow Mr. Stanley into the interior; and when the major was murdered returned to Stanley Falls to organise another party to proceed after Stanley with all despatch. Mr. Jameson was a son of a member of the firm of Dublin distillers of that name. He was so eager to join Mr. Stanley's expedition, to which he was attached as a naturalist, that he contributed, it is said, £15,000 towards the expenses. In his last report, just prior to starting from the Aruwimi camp, Major Barttelot wrote: "Before I close I would wish to add that the services of Mr. J. S. Jameson have been, are, and will be invaluable to me. Never during his period of service with me have I had one word of complaint from him. His alacrity, capacity, and willingness to work are unbounded, while his cheeriness and kindly disposition have endeared him to all."

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SIR—In the absence of the other members of the Emin Relief Committee, I would ask that, in common justice to the late Major Barttelot and to Mr. Jameson, all judgment as to their actions should be withheld until we receive the latter's full report; and I would venture to warn your readers against the stories which the Syrian interpreter, Assad Farran, referred to in the accompanying telegram, as well as in Major Barttelot's despatch, has scattered broadcast on his journey down the Congo, and which have been hastily caught up and retailed in various forms to this country. This man was dismissed by Major Barttelot for incompetence, and no credence should be given to his unsupported statements.

I would remind your readers of Major Barttelot's significant words, contained in his last letter and written at the most important moment of his life, when he asks the committee to "suspend all judgment concerning those actions either in the present, past, or future, till I (or Mr. Jameson) return home."

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"All reports about me, emanating from Assad Farran, a dismissed interpreter, false. If made public stop them. Sending necessary papers. Communicate with MacKinnon, President of the Committee, and Sir Evelyn Baring, Cairo.

(Signed) "JAMESON, Stanley Falls."

I have the honour to be your obedient servant,
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TO THE EDITOR OF THE TIMES.

Sir,—In the various notices and communications relating to the career of the late Earl of Iddesleigh which have appeared in your columns I have been somewhat surprised to see no reference to his chairmanship of an important Commission, whose labours extended over several years, or to the legislation which took place in pursuance of those labours under his guidance.

As secretary of the Commission on Friendly and Benefit Building Societies, which sat from 1870 to 1874, I may be permitted to bear testimony to the conscientious care with which he applied himself to the work of that Commission and to the genial tact with which he presided over its deliberations. Many others besides myself had opportunity to watch the skill with which he piloted through the House of Commons the Friendly Societies Act of 1875, but no one, perhaps, except myself knows the scrupulous attention which he bestowed on all suggestions for the improvement of the Bill during its progress. Of the Friendly Societies Act, 1875, it must be said that, while various amendments of detail have been introduced into it, the lines upon which it was drawn have remained absolutely unaltered. It has been often spoken of as "weak," but a future age will, perhaps, pass a different judgment upon it. Through its full and frank recognition of the affiliated orders, it has given a powerful impulse to the development of a class of societies the most highly organized of any, and which constitute by this time, through their colonial branches, a by no means unimportant link between the different portions of the British Empire. In enabling friendly societies to acquire land without any limitation it has opened to the most thrifty class of our population a door which had been closed for centuries.

I am, Sir, your obedient servant,

J. M. LUDLOW, Chief Registrar.

Registry of Friendly Societies, Central office, 28,
Abingdon-street, S.W., Jan. 18.

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1, Stratton-street, W., Sept. 21.

Englishman Aug. 7 1888

CHOLERA AND COOLIES.

TO THE EDITOR OF THE "ENGLISHMAN."

SIR,—In your article on "Cholera" among emigrants on the 30th of July, there are some passages which, I think, call for remark. You say that in a certain "interesting and weighty" letter to the Indian Tea Districts Association, Surgeon-General De Renzy, C.B., points out that "ten years ago terrible epidemics of cholera prevailed every year in the steamers which were traceable to two causes: first, foul water-supply; and second, defects in water-supply in the steamers. These two causes being removed the epidemics ceased, and the coolies experienced a marked immunity from cholera for some years."

If Dr. De Renzy is correctly reported, and there is no reason to believe to the contrary, he has again been guilty of misrepresentation, notwithstanding that such a statement has already been shown to be opposed to the deductions derivable from the data having reference to emigration. It is true, there were faults, greatly exaggerated by Dr. De Renzy, in the water-supply arrangements both in the Calcutta depôts and on board the Assam steamers; and that in 1878-79 Dr. De Renzy's crude suggestions for their improvement were worked to a definite and practical issue by others; and further, that there had been, undoubtedly, some very serious outbreaks of cholera among the emigrants while on board the Assam steamers. But it is not accurate to assert that epidemics prevailed every year. There were years of marked immunity in spite of the supposed bad water-supply arrangements in the depôts and on board, as you will observe from the following statement, which I have extracted from my paper on "Cholera among Emigrants to the Tea districts" (Vol. XV. 1881. *Indian Medical Gazette*):—

Years.	Percentage of death.	Number carried.	Remarks.
1866-67	... 2.91	11,734	Famine year. Many
1867-68	... 2.54	7,201	famine stricken
1868-69	... 1.44	7,974	people.
1869-70	... 1.16	3,534	
1870-71	... 0.14	3,491	
1871-72	... 2.47	4,697	
1872-73	... 1.20	8,140	
1873-74	... 1.32	14,387	
1874-75	... 1.90	11,034	
1875-76	... 1.15	16,434	
1876-77	... 0.99	14,646	
1877-78	... 1.09	17,366	
1878-79	... 2.55	16,495	High rate of mortality due to the large number of Chota Nagpur people.
1879-80	... 0.73	6,333	

Now please note, that in the year 1870-71, when the water-supply arrangements were said to have been the cause of cholera, the mortality was the lowest on record. Then as to the statement that, the two supposed causes of cholera having been removed, epidemics ceased to occur, please read this, and then tell me how you suppose Dr. De Renzy can reconcile his statement with the facts. In dealing with the emigration operations for the year 1879-80 I wrote the following in the above-quoted paper: "The improvements in the water-supply arrangements on board the Assam steamers, referred to when the previous year's operations were considered, were completed at the commencement of the year, and have worked most satisfactorily, though notwithstanding the extreme healthiness of the year they appear to have had no effect whatever in preventing the occurrence of cholera, as some people blinded by the *post hoc propter hoc* fallacy would have us believe." During this year, when

no fault whatever could be found with the water-supply arrangements, two severe outbreaks of cholera occurred on board.

In March, on S.V. "Simla," carrying 272 persons 24-8.82 per cent.—died.

In April on S.V. "Mysore," carrying 188 persons 13-6.91 per cent.—died.

I further pointed out that "It is a very significant circumstance as regards the influence of the improved water arrangements in preventing cholera, that the highest death-rate from that disease, for the months of April and March, during the past five years, occurred in April 1879, 6.0 per cent., and March 1880, 6.2 per cent. Indeed, there is sufficient evidence to show that if the coolies are embarked with cholera even latent amongst them—the water-supply arrangements are powerless to prevent an outbreak."

In my paper above referred to I have set forth the several conditions under which cholera epidemics occur on board the Assam steamers, and in my next letter I will briefly detail them, merely premising here that in all the later years in which there has been comparative immunity from the disease they have been conspicuously absent, and that immediately those conditions again come into operation, as they did during the present year, cholera once more prevails.

VINCENT RICHARDS.

Englishman Aug. 14. 1888

'CHOLERA AND COOLIES.

TO THE EDITOR OF THE "ENGLISHMAN."

SIR,—Since sending you my last letter on the subject, some details having reference to the occurrence of cholera among coolies during the river journey in later years, have come to hand. With your permission I will place them before your readers, and offer some further remarks regarding their practical bearing on the question of the causation of cholera on board the Assam steamers. The following are the particulars of the coolies emigrating via Goalundo:—

Years.	Particulars of deaths from cholera.	Maximum length of trip, hours, minutes.
1880-81	... nil	15 9
81 for 9 months only	... nil	15 10
1882	... 0.56	16 21
1883	... 0.35	17 0
1884	... 0.44	16 4
1885	... 0.19	15 0
1886	... 0.20	12 6
1887	... 0.11	7 1

It will be seen that, notwithstanding the lower rate of mortality from cholera during later years, there are only the years 1880-81 and 1887 that record a smaller death-rate than that of 1870-71; when the conditions were, in every way, less favourable.

Now, as regards the emigrants passing through Dhubri:—

Years.	Percentage of deaths from cholera.
1880	0.17
1881 for 9 months only	0.02
1882	0.22
1883	0.36
1884	0.14
1885	0.10
1886	0.13
1887	0.06

The maximum length of the trip is about five days, but the average residential period, of course, will be shorter as regards both the Goalundo and Dhubri coolies, because many batches are landed at the several ghats below Debrughur. Taking the statement of Dr. De Renzy that the improved water-supply arrangements are the cause of the lower mortality, is it not singular that the longer the emigrants remained under their influence the higher the mortality rate? For example, the death-rate on board the steamers from Goalundo was higher than that on board those from Dhubri. But the fact is this, it would have been simply impossible for the water supply arrangements on board to have influenced the mortality rate during a residence of only five days had all the conditions favourable to an epidemic expression of the disease been present. They were not present save in the years already pointed out, when heavy mortality occurred, hence the comparative immunity.

If we want positive evidence as to whether a good water-supply prevents cholera outbreaks when infection has been carried on board, we shall find it in the history of cholera as it occurs on board sea-going ships, which are supplied with Calcutta hydrant-water. On referring to the eighteenth annual report of the Sanitary Commissioner with the Government of India (1881) page 135, it will be found that from the year 1871 to 1880 cholera was reported to have occurred on board emigrant vessels leaving the port of Calcutta in thirty-three instances, and it will be interesting from its demonstrating how utterly worthless as evidence in favour of Dr. De Renzy's theory is the supposed favourable mortality-rate from cholera during a residence of only four days on board the Dhubri steamers, if a statement is furnished showing the periods at which the disease first occurred after the departure of the vessels:—

In	2 instances the disease broke out on the	1st day.
" 1	instance ...	... 2nd "
" 3	instances ...	... 3rd "
" 3	" ...	... 4th "
" 2	" ...	... 7th "
" 2	" ...	... 8th "
" 4	" ...	... 9th "
" 2	" ...	... 10th "
" 1	" ...	... 11th "
" 1	" ...	... 12th "
" 1	" ...	... 13th "
" 2	" ...	... 14th "
" 1	" ...	... 15th "
" 3	" ...	... 16th "
" 8	" ...	... after the 20th "

Thus, it is seen, that not only did the pure water-supply fail to prevent the expression of cholera when infection had been conveyed on board, but that in eight-elevenths 72.7 per cent. of the instances, that expression of the disease was delayed over six days. A more forcible example of the fallacy of Dr. De Renzy's reasoning (?) that a low mortality-rate during the trips from Dhubri—lasting a maximum of 5 days—is evidence in favour of his water-supply arrangement theory, cannot well be imagined. Is it not as clear as possible from the facts set forth, that if the emigrants carry infection on board with them, so sure as certain conditions are favourable—such as (a) crowding, especially if the people are junglies, (b) delay on the trip, particularly during hot and chilly weather—cholera will be more or less epidemic among them, in spite of the improved water-supply arrangements which exist?

As bearing on the question of the influence of crowding upon the mortality rate from cholera, I furnish the following, showing the average number carried from Goalundo from 1875-76 to 1887:—

Years.	Average number carried.	Percentage of deaths from cholera.
1875-76	253	1'15
1876-77	200	0'99
1877-78	275	1'69
1878-79	219	2'55
1879-80	87	0'73
1880-81	49	nil
1881 for 9 months only	36	nil
1882	55	0'56
1883	70	0'33
1884	72	0'44
1885	62	0'19
1886	37	0'20
1887	23	0'11

Now, bearing in mind the disturbing influences to which I have drawn attention, such as infection and the classes emigrating, is there not a most marked connection between the number carried and the rate of mortality? Note further, that the improved water supply arrangements were introduced in 1879—synchronously with a most marked decrease in the number of emigrants carried. While the water-supply arrangements have remained stationary, other conditions have fluctuated, "and the mortality-rate has fluctuated with them."

There are one or two other statements in Dr. De Renzy's "interesting and weighty" letter that can be traversed, but enough has been advanced to show that Dr. De Renzy's theory—like others as to the specific causation of cholera—is not without an extensive breach of continuity,—in other words, not without a big hole in it.

An indication of the philanthropic spirit of the day is to be found in the sudden desire manifested by the Tea Labour District Association for a return to the discarded, and to the tea interest somewhat more expensive, system of Government supervision. This co-operation must be the more gratifying to Government when it is remembered that demands from such a quarter have hitherto taken the other direction, namely, towards a greater relaxation of Government supervision.

In 1881 I drew attention to the possible danger to the tea districts of Assam, of the more rapid passage of emigrants from the recruiting districts, whereby the former were being brought, as it were, nearer to the endemic area of cholera. Since that was written, the mortality from the disease for the quinquennial period following (for which data are at hand) rose to an annual average of 17,236, as compared with 8,667, the annual average for the previous like period. It is, of course, impossible, in the absence of all the particulars bearing upon the point, to say whether we have here cause and effect. But, be this as

it may, the fact, taken in connexion with the behaviour of cholera on board sea-going ships, is sufficiently significant to serve as a warning to tea planters to enforce, by every legitimate means in their power, the most stringent sanitary measures among their people on the plantations. A low death-rate from cholera among the emigrants *en route* may titillate the vanity of certain interested, and not too far-seeing sanitary reformers, but that alone will not protect the coolies on the gardens from severe outbreaks of the disease, and the planters from a ruinous pecuniary loss.

VINCENT RICHARDS.

"Englishman" Aug. 17. 1885

CHOLERA AND COOLIES.

TO THE EDITOR OF THE "ENGLISHMAN."

SIR,—I have shown in my last letter that Dr. De Renzy's statement as to the cause of cholera outbreaks on board the Assam steamers is not borne out by the facts, and I will now note the principal circumstances under which such outbreaks occur.

1st. When cholera is prevalent either among the people from where the emigrants are obtained or in the districts through which they pass en route to the embarkation stations.

2nd. Embarkation during certain months of the year.

3rd. When the coolies are principally inhabitants of the Chota Nagpur districts.

4th. When the batches under conveyance are large, and especially when composed of Chota Nagpur people.

5th. The longer the passage the greater will the mortality be if the coolies have embarked with cholera among them.

6th. The non-inspection of coolies and the non-detention of suspected cases.

We have ample evidence of the fact that if the recruitments are conducted among a people already affected with cholera, there is a great danger of the occurrence of severe outbreaks of the disease immediately the emigrants become massed together, whether in a depot or on board the steamers. This danger is enhanced twenty fold when the coolies are inhabitants of the Chota Nagpur districts, coming within the endemic area for the first time. As regards the seasons at which cholera is likely to be most prevalent, should the emigration tide be high during any of the following months, cholera is likely to occur—under the other circumstances, severely—in February, March, April, July, and August. Though it must not be forgotten that, while almost every month may be marked by a heavy mortality, every month, except March and April, perhaps, may be equally marked by an absolute immunity from the disease. It can be laid down almost as a positive rule, that whenever cholera is unusually prevalent on board the steamers, the sufferers will be found to be people of the Chota Nagpur districts. I cannot better illustrate this than by pointing out that during the years 1875-79 at Goalundo these people contributed no fewer than 570 out of 712 persons treated in the hospital for the disease, and 438 out of 526 fatal cases. The disease is, moreover, more fatal to them than to any other class, in the proportion of from 7 to 25 per cent. Apropos of this I furnish the following extract from the report of the Tea Commission of 1868: "The mortality both in depot and transit has been much greater among labourers to the tea districts than among those who have emigrated to the Colonies, and the difference has been attributed to the large proportion of Dhangurs among the former. We have been unable to ascertain what this proportion has amounted to, but there is no question that this class of labour is much sought after by the planter, and that great efforts are made to obtain as many of them as possible. It is an admitted fact that Dhangurs, both in depot and on the voyage, suffer more severely from sickness, and die in larger numbers, than labourers from other parts of the country."

1878-79 was one of the worst cholera years on record, and out of 25,712 coolies recruited for the tea districts no fewer than 17,115 were inhabitants of the Chota Nagpur districts. Is it not obvious that the mortality rate in any given year will depend greatly upon the proportion of Chota Nagpur people among the emigrants of that year?

We come now to the numerical strength of the batches under conveyance. The evidence on this point is convincing. If you refer to the table given by me in my previous communication you will observe that when the highest mortality occurred, namely, in 1865-66, the largest number was carried, and when the smallest number was carried, namely in 1870-71, the lowest mortality occurred. When a heavy death rate occurs in a comparatively small batch, the sufferers are invariably Chota Nagpur people. In former years the shipments consisted of hundreds, whereas of later years they do not exceed tens, at least from Goalundo; and yet we find that the mortality rate considerably exceeds the 0.14 per cent. of 1870-71, when the cause of cholera, according to Dr. De Renzy, was in full operation. The fact will not be questioned, I imagine, that, *ceteris paribus*, the longer the trips the larger will be the mortality when cholera has occurred on board. The passage which in former years occupied 21 and 22 days, reduced subsequently to an average of 16 days, now takes only seven from Goalundo and four or five from Dhubri. This is another circumstance that, according to Dr. De Renzy, can be altogether ignored.

The rules in regard to the inspection of emigrants of different classes have varied with each Act. At one time only contractors' coolies came under rigid inspection, then the *nidari* emigrants were included, and now a class of coolies called free emigrants come under no inspection whatever. The free labour clause was introduced into the present Act as a concession to the demands of the tea interests, and in the belief that free emigration of *abona fide* character would be encouraged, instead of which a system of recruitment came into operation with none of the safeguards of the Act. And this is no doubt why Government exercised the only power conferred upon it in reference to these particular emigrants, and stopped emigration from certain districts, notably those of Chota Nagpur. I for one am firmly convinced that, had not Government exercised a discretion in this matter, this year would have been remarkable as one of the most disastrous in the annals of emigration. As it is, the year will leave its mark as one in which a high rate of mortality prevailed.

Since I wrote the papers in 1880 to which I have referred, two Sanitary Commissioners with the Government of India, namely, Dr. Cunningham and Sir Benjamin Simpson, and Dr. De Renzy's successor as Sanitary Commissioner with the Assam Government, Dr. Eteson, have written on this subject as follows:—

"It had been mentioned that the marked exemption from cholera among these emigrants during 1880 was solely due to improved arrangements which had been made in the water supply of the steamers in which they were carried. But the variations in cholera mortality among the general population of the districts through which the coolies passed were just as marked, and even more marked, than among the emigrant coolies themselves. In the earlier part of the current year (1882) a striking illustration of the general correctness of this view was furnished by the experience of four steamers during their passage with coolies in the Bramaputra, when 62 deaths from cholera were reported out of a total of 1,791 emigrants. One of the steamers, the *Nepal*, with 484 coolies, lost 40 emigrants from this cause during the month of March. The accommodation on board and all the arrangements were pronounced to be good . . . (Sanitary Commissioner with the Government of India's Report for 1881.) I give here a few examples of the erratic behaviour of cholera among the general population. In Assam during 1880 there were 2,803 deaths, while in 1886 there were 20,188. In the Punjab, in 1879

there were 26,135, and in 1886 only 12 deaths. In the Central Provinces, during 1878, there were 40,985, and this number fell in 1884 to 149. In Berar during 1878, 34,306 persons died, in 1880 only 1; but again in 1883 the deaths from cholera rose to 27,897. Again, in Rajputana, in 1878, the deaths numbered 2,393, but in 1880 there was not a single death from the disease; and lastly, in Bombay during 1878, 46,743 died, while in 1886 there were only 66 deaths.

Sir Benjamin Simpson writes in his Report for 1884:—

"It is evident however from the history just given, that sanitary measures to improve the surroundings of the coolies during their progress upon the river have followed one another so rapidly that the effect of the introduction of any one of them on the causation of this still mysterious disease cannot be distinctly traced. Of the various explanations, however, which have been offered to account for the diminished prevalence of cholera among them of late years, that given by Dr. De Renzy, the late Sanitary Commissioner of Assam, that an improved water supply is the chief cause, cannot be accepted, for Dr. Eteson, the present Sanitary Commissioner, writes:—'The coolies, who alone are provided with protected and filtered water, alone get cholera, other passengers who always draw water over the side, and at landing places where the steamer stops, and pollution is most probable, never get it. The crews of all the steamers use unprotected water, and are never attacked.' But after all, the improvement is more apparent than real. Quite apart from the small numbers under conveyance and the absence of Chota Nagpur people of late years, none of the years 1884, 1885, and 1886, when the mortality rate was respectively 0.83 per cent., 0.27 per cent., and 0.30 per cent., can compare with the 0.14 per cent. of 1870-71, when the passage occupied more than double the time, and, according to Dr. De Renzy, the cholera-producing agent had full swing; and yet we have the tale of 1888 to be unfolded. You will see then how utterly powerless the water supply arrangements on board were to prevent some fearful outbreaks of the disease.

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- 1. Improved ventilation.
- 2. A larger amount of cubic space by the raising of the roofs of the steamers.
- 3. More hospital space for the segregation of the sick.

no surprising to learn that the Government of Crawford had been arrested. After this Court in support of the charge on which judgment that he had no evidence to lay before intimation by the representative of the Gov- first incident in the hearing would have been case come on at the appointed time, the Mr. Crawford. Indeed, we are told that, had independent mistake in proceeding against that the Government has been guilty of a on in that way." From this it would seem Government preclude him from seeking satisfaction of the Crown, and the terms of his wrongful imprisonment. But he is a Govern- whose order he was arrested for damages for

"Englishman" Aug. 17. 1885

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1. Improved ventilation.
2. A larger amount of cubic space by the raising of the roofs of the steamers.
3. More hospital space for the segregation of the sick.
4. Division of the decks for the prevention of overcrowding.
5. An improvement of the dietary scale to prevent over-feeding.

Dr. De Renzy has never attempted the task of answering these facts, even when they were placed before him in the most prominent manner, but as he did in 1880 so he does in 1888—he merely reiterates a statement which is absolutely without foundation in fact, and he steadily ignores all the conditions which admittedly—on the part of all the more able sanitarians both here and in England—influence the mortality rate among emigrants while on board the Assam steamers, apparently because they do not dovetail in with his theory as to the causation of cholera among those emigrants, and, consequently, detract from the value of the improvements in the water supply for which he was mainly responsible.

This language is, no doubt, strong, but I have some knowledge of Dr. De Renzy's method of conducting an investigation having reference to water-supply arrangements, and I did not find it remarkable for either scientific precision or strict impartiality. Past experience teaches that, although the several sanitary improvements which have been effected and the shorter duration of the river passage may operate favourably under ordinary conditions, they will be powerless to prevent occasional severe outbreaks of cholera whenever the disease is present either in the districts whence the emigrants are recruited, or through which they pass, that the outbreaks will be the more severe, the greater the proportion of Chota Nagpur people in the shipments; and that the only remedy will be, so long as cholera is endemic in Bengal, the temporary suspension of emigration. Whatever measures may be taken with the object of lessening the danger at the recruiting transport, and other depôts, Government will have, I think, to reserve to itself the right to exercise this power on extraordinary occasions.

VINCENT RICHARDS.

Founders Day at Epsom Medical College

Reprinted from the "Surrey Gazette" July 13, 1889.

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Founder's Day at Epsom Medical College was celebrated on Saturday afternoon, July 6th, when the chief feature of the proceedings was, as usual, the presentation of the prizes won during the past school year. The record of work done presented shows that Epsom College continues to assert a marked and beneficial influence in training young men for the medical profession and mercantile pursuits, and we doubt whether any public school of the kind has obtained a more distinguished list of successes in open and other competitions for academical honours. Of one thing there can be no question—that Epsom College has greatly improved its position among public schools within the past three or four years, and under the zealous care of the Council, comprising some of the most eminent members of the medical profession, this improvement has been steadily maintained during the past year. Dr Constantine Holman, J.P., of Reigate, who is the Treasurer of the Institution, has shown how earnestly he is devoted to the interests of Epsom College, and how much he desires that it should reach the highest point of excellence in the scholastic world. His practical and experienced aid have already exercised a perceptible influence in promoting the prosperity of the College. In one important respect the history of the past year has been a very sad one for Epsom College. By the death of the Rev Cecil Wood after a prolonged illness, the College was deprived of a headmaster, who during his tenure of the office laboured with conspicuous ability and success for the benefit of the boys who were placed under his care. No one could have filled more worthily the high position entrusted to him, and his lamented death, at a comparatively early age, cut short what promised to be a most brilliant career. He laid, as it were, the foundation of a new era for Epsom College, and the work which he accomplished during his headmastership will cause his name to be gratefully remembered. The Rev T. N. Hart Smith, who has succeeded to the headmastership, brings with him a wide experience of public school work at Marlboro' College.

It cannot be too widely known that Epsom is not a class school, and it has never been desired to make it so. It is not a "Medical" College, nor "Benevolent," unless in the same sense that a school like Eton is. Like the endowed schools, a specified number of foundation scholars are maintained and educated, but except these, any parent, medical or not, can send boys to Epsom. It is the earnest desire of the Council and the headmaster to extend the basis of the school, and in this respect they are working with every augury of ultimate success. The founders of the College had two objects in view: (1) Benevolent, to help medical men's widows and orphans (foundations), (2) Educational, to create a good school at which the sons of medical men would have advantages but would mix with others. The pensioners reside in the College, so that the school and the benevolent portion are together—one institution with two divisions.

The programme of the proceedings on Saturday differed materially from that observed on previous occasions. The customary speeches by the boys were omitted on this occasion, the reason being that the Council felt they were not justified in allowing so much time to be taken from the ordinary work of the College for the preparation of these elocutionary efforts. The large schoolroom where the prizes were distributed was very effectively decorated. The headmaster (the Rev T. N. Hart-Smith), who presided, was supported by Sir Edward Sieveking, Sir John Rogers Jennings, Dr C. Holman, J.P. (treasurer of the College), Dr R. H. Bradley, Dr F. Taylor, Mr Thomas Dickinson, Dr Baines, the Rev E. W. Northey (members of the Council), Rev S. J. Rowton, Rev W. A. Thomas, Rev O. Jones, Rev N. G. Lawson, Mr J. S. Jackson, Mr A. J. Newsom, Mr H. Candy, Mr J. Whiteside, Mr W. D. Crossley, Mr C. R. Taylor, Mr C. Engel, Rev H. Biddell (masters), and Mr Robert Freeman (secretary of the College). In the body of the room there was a large gathering of ladies.

Amongst the guests were Mr and Mrs Cogan, Mrs Wharton Hood, Dr and Mrs Martin, Mr and Mrs Powell, J. Roche Lynch, Esq., Mr and Mrs Fisher, Dr and Mrs Purves, Dr Alderson, Mr and Mrs Beadles, Mr and Mrs Chetwood, Dr and Mrs Collum, Mr and Mrs Gray, Mrs Daniel, Mr and Mrs Hardwick, Mrs Wellesley Reade, Mr and Mrs Lambert, Mrs Dowse, Mrs Anning, Mr and Mrs Hodder, Mr and Mrs Jeffery, Major and Miss Stone, A. Napper, Esq., Dr Meadows, Dr and Mrs Lownds, Dr and Mrs Willson, Mr and Miss Fraser, Mrs James Davies, Mr Edwin Jay, Mr and Mrs Belchier, Dr and Mrs Napper, Mr Furnivall, Mr Morley, Mr and Mrs Oldaker, Mr and Mrs Pyemont, T. H. Norman, Esq., Mr Collins, Sister Isabel, Mr Hodgson, Mr and Mrs D. D. Fenning, Mrs Jeaffreson, Mrs Martin, Mrs Coltart, Dr and Mrs Channing-Pearce, Miss Rowton, the Misses King, Mr Huckin, Dr and Mrs Bate, Mrs Truman, Dr De Tatham, Dr Rockwood, and many other ladies and gentlemen who came with friends. There were also present several former members of the school, and friends of the headmaster or assistant masters, and many persons interested in the fortunes of the school or connected with the College in various ways. The company considerably exceeded 200, and the numbers would have been larger had not professional or other engagements prevented many who were invited from being present, especially in the surrounding neighbourhood.

The HEADMASTER, in opening the proceedings, offered a hearty welcome to the visitors on behalf of his colleagues and the Council of Epsom College (applause). He could only speak from a very short experience, but he could confidently say that in the Council of Epsom College they had a body of men who were most seriously determined to make that school a good one, and to devote their utmost efforts to that purpose (applause). He had hoped that they would have seen many more members of the Council present that day, but he felt assured that their absence was not due to any want of interest in the welfare of the College, but to other duties which were more pressing upon them. He should like, however, to mention the very constant interest which Dr Holman, the treasurer, took in the welfare of the College (applause). They had met that day for two objects—first to memorialize the name of their founder, John Propert, whose name would always be remembered there (applause); and, secondly, for the purpose of distributing the prizes which had been won during the year. There were certain features in the programme which perhaps they would have noticed were somewhat different from those of previous years. Since the last Founder's Day the Council had decided to do away with the customary speeches. These speeches, in order to be effective, required two things—great oratorical powers and memory, and a very great deal of study, and the Council decided that they were not justified in giving so much time to the preparation of these speeches. He knew in ancient schools it was customary to give speeches, but in a school like theirs with examinations going on they could not devote the time which would have to be given to their preparation, and which would upset their ordinary work. A new feature in the day's proceedings was a service in the chapel, to which they were all invited. He should be very sorry to see a Founder's Day go by without some opportunity being given of their meeting together in the House of God. Referring to the death of the late headmaster (the Rev Cecil Wood), the headmaster said the history of the past year had been a very sad one for Epsom College. The long illness of the Rev Cecil Wood terminated in his death, and those who knew his predecessor, remembered a man who was most earnestly devoted to the work entrusted to him, and most efficiently carried out his duties. Mr Wood left the school in a thoroughly sound and healthy condition, as he could testify, and his name would be remembered there as one who tried to do his best, according to his powers, to carry out his duties (applause). He thought it spoke well that, notwithstanding the loss they had sustained, the numbers in the school did not diminish, and at the beginning of the term there were only three less. He should like on that occasion to thank most heartily the assistant masters for the cordial welcome and support they had given him, and in speaking of the assistant masters he should like to mention the name of the second master, Mr Rowton (applause), who during Mr Wood's

illness conducted the school entirely, in addition to numerous other duties. Mr Rowton, who was their organist, also managed the College Choir entirely, and to-day they heartily welcomed him back from Dublin, where he had taken his degree of Bachelor of Music (much applause). They congratulated him most warmly on obtaining that degree, and he believed the anthem they intended to sing at the service formed part of the composition which Mr Rowton prepared on the occasion of his examination for the degree. Having spoken in appreciative terms of the College matron, the headmaster went on to speak of the external life of the College—football, cricket, and other pursuits in which Epsom College had always excelled. He attached great importance to the encouragement of these out-door pursuits as an excellent means of obtaining better work in school (applause). With regard to their natural history society, the headmaster spoke of it as an excellent way of acquiring practical knowledge in a pleasant way of external objects. They had made several expeditions during the summer, on one occasion to Boxhill and Reigate, where they received extreme hospitality from Dr Holman (applause).

The Headmaster then read the list of distinctions gained by old Epsomians since last Founder's Day as follows:—

D. G. Carnegie, M.A., has been appointed demonstrator in chemistry in the Caius College Laboratory, Cambridge.

E. P. Cockey has taken his M.D. at London University.

F. O. R. Stedman has taken his M.D. at London University, and has been appointed Surgical Regr. at Charing Cross Hospital.

H. A. Kidd holds the post of Junior House Physician at Cane Hill Asylum.

R. T. Gravelly a similar post at the Royal Berkshire Hospital, Reading.

L. W. D. Mair and H. W. Elphick have taken their M.B. degree at London University.

P. J. Duncan, M.B., is Senior House Physician at Charing Cross Hospital.

E. J. Moore and H. B. Knight, after taking their double qualifications, were appointed Junior House Physicians at St. Bartholomew's Hospital.

R. Boxall, of University College Hospital, Assistant Obstetric Physician to Middlesex Hospital.

W. Halley, after taking his double qualifications was appointed Resident Obstetric Physician to Charing Cross Hospital.

F. P. Long, first class honours (moderations), Oxford.

C. K. Bowes has taken his M.B., B.S., and M.D. degrees at Oxford University.

DIRECT FROM THE SCHOOL.

T. A. Bowes, W. F. Lucas, W. A. Montgomery, F. S. Jackson have passed the Preliminary Scientific (M.M.) at London University.

L. C. P. Phillips (53rd honour), E. C. Montgomery, C. W. Lanphier, S. B. Stedman, W. Herbert, F. H. E. Anning, F. K. Wilson, P. M. Smith, A. W. Jenkins, M. Raper have matriculated at London University.

The above list of distinctions showed, the HEADMASTER continued, that their best boys were taking leading positions in the London Hospitals, and they were likewise equally successful at Oxford and Cambridge Universities (applause).

Before proceeding to distribute the prizes the Headmaster mentioned that the result of the Preliminary Scientific Examination, for which some of the boys sat, was not yet known, and in consequence the Martin prize for classics and the Sterry prize for mathematics had not yet been awarded. The prizes were presented in accordance with the following list:—

- Hodgkin Prizes—F. N. Cookson.
- Brande Good Conduct Prize—F. H. E. Anning, senior prefect.
- Brande Essay Prize—H. G. Lawrence.
- Proper Prize—H. O. P. Phillips.
- Carr Divinity Prize—Alderson.
- Egledne Essay Prize—H. G. Lawrence.
- Watts Prize—H. C. P. Phillips (2), H. G. Lawrence, and F. J. Cookson.
- English Language—H. Norman and R. S. Mair.
- French—H. Boulton; prox acc. J. H. Torrance.
- German—F. Levick; prox acc. E. C. Montgomery.
- History and Geography—W. Herbert; prox acc. C. V. Alford and W. Fritchard.
- Drawing Prizes—E. C. Montgomery, Tomkins, F. G. Davy H. James.

Elocution Prize—E. H. Lounds.
Choir Prize—F. C. L. Jones.

FORM PRIZES.

VI.—Christmas term—1, Oldaker; Lent term—2, B. Walker.
Metric.—Christmas term—1, Jenkins; Lent term—2, Lucas.
Fifth.—Christmas term—Cottart; Lent term—J. Murray.
Remove.—Christmas term—Lucas; Lent term—Levick.
Upper Mid. I.—Christmas term—be. wood; Lent term—W. Lawrence.
Upper Mid. II.—Christmas term—F. Atkinson; Lent term—E. Davies.
Upper IV.—Christmas term—R. Burch and C. Furnivall; Lent term—M. Smith.
Lower Mid.—Christmas term—Havenshaw; Lent term—Cullen.
Lower IV.—Christmas term—C. Rutherford; Lent term—Crothwaite.
Merc.—Christmas term—A. Reade; Lent term—L. Pocock.
Third.—Christmas term—Hardwick; Lent term—C. Gray.
Second.—Christmas term—J. Watson; Lent term—C. Fisher.
First.—Christmas term—C. R. Sutherland; Lent term—C. A. Gill.

The HEADMASTER, at the close of the distribution, said that speaking from his own experience he knew no school where the advantages offered for study were so great as at Epsom, especially for boys who were about to enter the medical profession (applause). The short time he had been there made him very hopeful indeed. During the whole of the time he had not had a single complaint of a serious nature brought before him, and he felt sure that in the Council and his colleagues they had a body of men who were determined to make the College thoroughly effective. He would remind parents that there was one thing essential to the success of the work of any school, and that was that while the term lasted it should be the term, and that when the holidays came they should be the holidays (applause). He was opposed to anything that interrupted more than was necessary the regular work of the school (hear, hear). The days were gone by when corporal punishment was resorted to for the punishment of offences. Lord Laurence said on one occasion that during the whole of his school life he only missed one day but what he had a flogging, and then he had two (laughter). But these days were gone, and there was nothing so bitterly regretted in after-life as the misuse of the few years they spent at school. They did everything they could to make a fair division of work and play, and he appealed to the parents and boys to assist them in increasing the prosperity of the College. There was no reason why they should not win more distinctions and achieve greater success in their school life (applause).

Dr HOLMAN, the treasurer, who was received with hearty cheers by the boys, said there was hardly anything, except, perhaps, his own profession, in which he was more closely interested than in the success of Epsom College (applause). But he could not stand there that day without being most mournfully reminded of him who was gone, and who wore himself out and died in their service. They all knew who had to deal with their late headmaster that he adopted a rigorous discipline, and they knew also how earnest he was in the welfare of Epsom College and what he wished it to be (hear, hear). Standing in the presence of their new headmaster he was delighted that the rigour they had to undergo under the late Mr Wood had resulted in his leaving Epsom College a wholesome and healthy school (applause). He desired to impress upon the boys that though the governing body might do their very best, it depended upon them to make Epsom College what it ought to be—a public school of standing in the country (applause). He most sincerely believed that the lines upon which they were now working were healthy lines, and lines of progress (applause). Having been for more than a quarter of a century interested in the College he could say—and he was only repeating the experience of those members of the Council who were older than himself—that there was a manifest improvement in the tone of the boys who were now within their walls (applause). But if they were boys of better tone they must recollect that more was expected of them, and they must put their shoulders to the wheel and do their very best (applause). He wanted them to excel, not only in school work, but in cricket, football, and other sports (applause). Epsom had done something in the past, and it ought to do much more in the future (applause). There was present that day an old Epsomian, Dr Taylor, who was one of the highest teachers of his profession at St. Thomas's Hospital (applause). If, said Dr Holman, addressing the boys

in conclusion, you want to give us grey-headed men pleasure, help us; if you want to emulate a Taylor, work; if you want to cheer the heart of the Headmaster, who has come from another great public school, help him and his wife to make this their abiding home, and then you will make him happy and Epsom College a success (much applause).

Cheers for the Council and Headmaster and Staff concluded the proceedings.

Light refreshments (provided by Mr Barnard, Epsom) were served in the grounds for the visitors, and the proceedings of the day terminated with a service in the College chapel.

THE CONGRESS ON HYGIENE AND DEMOGRAPHY.

The final arrangements for the meeting in London next week of the Congress on Hygiene and Demography were concluded yesterday. Over 2,000 tickets have already been taken, so that the success of the Congress from a numerical point of view is already placed beyond doubt. The list of members shows that many of the most illustrious of foreign professors and doctors of medicine have announced their intention to attend the Congress, and, indeed, most of our eminent visitors have already put in an appearance at the offices of the Congress, 40, Hanover-square, where Dr. Poore, the secretary-general, is engaged from morning to night in supplying information. The Congress, which, of course, is international, has held six previous meetings—first in Brussels, and then in Paris, Turin, Geneva, the Hague, and Vienna, so that a visit to London was quite due. The invitation to visit London was sent by the Sanitary Institute and the Society of Medical Officers of Health. Other cities put in a claim, but the Permanent International Committee fixed on London for the seventh meeting of the series. For the next meeting Berlin, Rome, St. Petersburg, and Madrid may be expected to compete. The presidency of the Congress was offered to his Royal Highness the Prince of Wales, who readily undertook the duty, and, in fact, his Royal Highness has postponed his visit to Germany in order to preside at the opening meeting in St. James's-hall on Monday. Her Majesty has taken from the first a very deep interest in the Congress and in the special work of the foreign members; and, as we have already intimated, it is probable that before the week is over a party of distinguished ladies and gentlemen will proceed to Osborne.

The Congress, which begins its work on Monday, is arranged in two divisions and ten sections. Division I. is devoted to hygiene, preventive medicine, bacteriology, relation of the diseases of animals to those of man, hygiene of infancy and childhood, chemistry and physics in relation to hygiene, architecture in relation to hygiene, engineering in relation to hygiene, and State hygiene. Division II. is the tenth section, and it is devoted to demography, health statistics, and industrial hygiene. In the latest edition of the official programme a map is given of that section of West London in which the members of the Congress will hold their meetings. Section 1, preventive medicine, will meet in the room of the Society of Antiquaries, Burlington-house; section 2, bacteriology, will meet in the rooms of the Royal Society, Burlington-house; section 3, diseases of animals, in the Geological Society's rooms; section 4, infancy and childhood, in the theatre of the London University; section 5, chemistry and physics, in the Chemical Society's room, Burlington-house; section 6, architecture, in the West Examination room, London University; section 7, engineering, in the East Examination room of the University; section 8, naval and military, in the Linnen Society's rooms, Burlington-house; section 9, State hygiene, in the Astronomical Society's rooms, Burlington-house; and section 10, demography, will meet in the Museum of Geology. It

will thus be seen that the sections are about equally divided between Burlington-house and the University of London, which, in fact, adjoin each other. The meetings of the sections will be held on Tuesday, Wednesday, Thursday, and Friday, from 10 a.m. to 2 p.m., the Royal School of Mines being also set apart for this purpose. It should also be mentioned that Mr. Agnew's picture gallery in Old Bond-street has been placed at the disposal of the ladies' committee, of which Mrs. Eliza Priestley is president. The gallery has been handsomely decorated and furnished by Mr. Blundell Maple, M.P., and it will no doubt be found a most convenient adjunct to the places of meeting.

We have already given particulars of the more important papers which will be read, but necessarily even now it is impossible to enter into anything like details of the valuable papers which, as the result of great experience, skill, study, and experiments, are to be laid before the different sections. In matters of sanitary science perhaps England is not behind any other country in the world. From England, indeed, it may be said, other countries have derived some valuable ideas in hygiene. But from a variety of circumstances into which it is unnecessary to go, England has lagged behind in experiments on living tissue, and much curiosity will be felt as to the disclosures to be made in this department. The medical profession of the three kingdoms will, we may feel certain, take a profound interest in the proceedings of the Congress; and we learn that while London is in a preponderating degree represented, Edinburgh, Dublin, and all the large cities and towns of England and Scotland will send delegates to the Congress. Necessarily, we cannot enter at length into the details of all the sections, but to take only two—preventive medicine and bacteriology—a few of the names will show how admirably medical science is represented. The president of the former is Sir Joseph Fayrer, while as honorary presidents there are such names as Dr. Almquist, Professor Dr. Da Silva Amado, Dr. Billings, Professor G. Van Overbeck de Meyer, Professor Dr. Pacchiotti, Professor Dr. Brouardel, and Dr. Lehmann. There are in this section alone 30 honorary presidents and 12 vice-presidents, not to speak of the council of 29 eminent physicians, drawn from places as far apart as Bradford and Berlin and Newcastle and Calcutta. In bacteriology, over which Sir Joseph Lister will preside, the public will readily recognize such names as those of Dr. George Buchanan, Dr. Klein, and Professor Burdon Sanderson, not to speak of M. Pasteur, and Dr. Koch. In this important section almost every great city in Europe is represented. Paris sends five distinguished men, Berlin two, while Lyons, Prague, Zurich, Budapest, Rome, Turin, Copenhagen, New York, and other foreign cities are represented. Amongst others, Edinburgh sends Professor Greenfield, Aberdeen, Professors Hamilton and Ogston, and Dublin, Dr. M'Weeney and others. Dr. W. Hunter, of Wimpole-street, will be in charge of this important section. It is not necessary to go through the other sections, which are equally strong. In the demography division Mr. Francis Galton is president, with Mr. Leonard Courtney, M.P., Mr. Giffen, Sir John Lubbock, and Sir Lyon Playfair as vice-presidents, and a council including many eminent names.

In addition to the strictly business meetings of the sections, many social gatherings, such as garden parties and *conversazioni*, have been arranged for. The Lord Mayor (Sir Joseph Savory) and the Sheriffs (Sir W. Farmer and Sir Augustus Harris) have issued invitations for a *conversazione* at the Guildhall on Tuesday night, the card of invitation being a work of art of considerable artistic merit. Although the Congress meets at a time of year when London usually is bent on holiday-making, there is every

reason to believe that the distinguished visitors will not regret having come to this metropolis for a week's interchange of experience and ideas.

It has been arranged that the afternoon of Tuesday will be set apart for a special meeting of the Congress for the consideration of "The Education and Registration of Plumbers in relation to the Public Health." It is hoped that the meeting will be presided over by Mr. Ritchie, President of the Local Government Board. The meeting will be attended by representatives of local organizations, including the mayors, chairmen of health and sanitary committees, and medical officers of health of the chief cities and towns of Great Britain and Ireland.

A representative committee has been formed with the object of making known the aims and work of the Congress in India and Ceylon.

The Government of India have recommended a number of officers, retired or on leave, to represent their provinces at the Congress. Most of the Indian Chambers of Commerce, who are particularly interested in the quarantine question, have nominated delegates. The Universities, the leading municipalities, and other bodies will also be represented.

The Nizam of Hyderabad, the Gaekwar of Baroad, the Maharajah of Jeypore, and the Maharajah of Bhavnagar, have each subscribed £100, and the Maharajah of Cooch Behar, has contributed £50. Subscriptions have also been received from the Rao of Cutch, the Nawab of Junagarh, the Maharajah Bahadur of Tippera, and others.

On Thursday afternoon, at 3 o'clock, a special Indian meeting, open to all delegates and members, will be held in the theatre of the London University, when papers on sanitary progress in India will be read by Surgeon-General Sir W. J. Moore, K.C.I.E., honorary surgeon to the Queen-Empress, Surgeon-Major T. H. Hendley, C.I.E., Residency surgeon, Jeypore, and Mr. Muncherjee M. Bhowanagree, C.I.E., delegate of the Bhavnagar State.

Every endeavour will be made to make the visit of the Congress pleasant and instructive to the members, and to enable them to see to advantage whatever England has to show which is of interest from the point of view of sanitation, science, art, and archaeology. A special handbook for London is being prepared by Messrs. Cassell and Co. This handbook will be printed in French and English, will contain several maps and plans, and will be mainly devoted to those matters which have a special interest for members of a Congress of Hygiene and Demography.

A Congress badge, from a design by Mrs. Thomas W. Cutler, and approved by his Royal Highness the president, will be provided.

The Royal College of Surgeons has decided to give a *conversazione* in the Hunterian Museum and Library of the College in Lincoln's-inn-fields, on Monday.

The Royal College of Physicians will receive members of the Congress at a *conversazione* to be given at the College in Pall-mall on Wednesday.

Baroness Burdett-Coutts gives a garden party at Holly-lodge, Highgate, on Tuesday.

On Thursday, at 6 p.m., the members of Congress will dine together at the Crystal Palace, Sydenham, and in the evening a special display of fireworks will be given.

Sir Donald Currie has invited a limited number of members to luncheon on board the Drummond Castle. During the afternoon arrangements will be made for a visit to the drainage outfalls at Barking and to the Beckett Gasworks.

The Metropolitan Asylums Board will arrange for a limited number of members to dine in the evening at the Crystal Palace. Mr. W. W. Head came in, and this number Lockwood was credited with 48, in which were the four. Mr. W. W. Head came in, and he returned bowling in lieu of George Hearne. A bet was given for Abel as that famous batsman reached his 50; but the end of this admirable innings had been given for Abel as that famous batsman as then near, and he, too, was dismissed by A. C. Abel was in two and a half hours, and his name.

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will thus be seen that the sections are about equally divided between Burlington-house and the University of London, which, in fact, adjoin each other. The meetings of the sections will be held on Tuesday, Wednesday, Thursday, and Friday, from 10 a.m. to 2 p.m., the Royal School of Mines being also set apart for this purpose. It should also be mentioned that Mr. Agnew's picture gallery in Old Bond-street has been placed at the disposal of the ladies' committee, of which Mrs. Eliza Priestley is president. The gallery has been handsomely decorated and furnished by Mr. Blundell Maple, M.P., and it will no doubt be found a most convenient adjunct to the places of meeting.

We have already given particulars of the more important papers which will be read, but necessarily even now it is impossible to enter into anything like details of the valuable papers which, as the result of great experience, skill, study, and experiments, are to be laid before the different sections. In matters of sanitary science perhaps England is not behind any other country in the world. From England, indeed, it may be said, other countries have derived some valuable ideas in hygiene. But from a variety of circumstances into which it is unnecessary to go, England has lagged behind in experiments on living tissue, and much curiosity will be felt as to the disclosures to be made in this department. The medical profession of the three kingdoms will, we may feel certain, take a profound interest in the proceedings of the Congress; and we learn that while London is in a preponderating degree represented, Edinburgh, Dublin, and all the large cities and towns of England and Scotland will send delegates to the Congress. Necessarily, we cannot enter at length into the details of all the sections, but to take only two—preventive medicine and bacteriology—a few of the names will show how admirably medical science is represented. The president of the former is Sir Joseph Fayrer, while as honorary presidents there are such names as Dr. Almquist, Professor Dr. da Silva Amado, Dr. Billings, Professor G. Van Overbeck de Meyer, Professor Dr. Pacchiotti, Professor Dr. Brouardel, and Dr. Lehmann. There are in this section alone 30 honorary presidents and 12 vice-presidents, not to speak of the council of 29 eminent physicians, drawn from places as far apart as Bradford and Berlin and Newcastle and Calcutta. In bacteriology, over which Sir Joseph Lister will preside, the public will readily recognize such names as those of Dr. George Buchanan, Dr. Klein, and Professor Burdon Sanderson, not to speak of M. Pasteur, and Dr. Koch. In this important section almost every great city in Europe is represented. Paris sends five distinguished men, Berlin two, while Lyons, Prague, Zurich, Budapest, Rome, Turin, Copenhagen, New York, and other foreign cities are represented. Amongst others, Edinburgh sends Professor Greenfield, Aberdeen, Professors Hamilton and Ogston, and Dublin, Dr. M'Weney and others. Dr. W. Hunter, of Wimpole-street, will be in charge of this important section. It is not necessary to go through the other sections, which are equally strong. In the demography division Mr. Francis Galton is president, with Mr. Leonard Courtney, M.P., Mr. Giffen, Sir John Lubbock, and Sir Lyon Playfair as vice-presidents, and a council including many eminent names.

In addition to the strictly business meetings of the sections, many social gatherings, such as garden parties and *conversazioni*, have been arranged for. The Lord Mayor (Sir Joseph Savory) and the Sheriffs (Sir W. Farmer and Sir Augustus Harris) have issued invitations for a *conversazione* at the Guildhall on Tuesday night, the card of invitation being a work of art of considerable artistic merit. Although the Congress meets at a time of year when London usually is bent on holiday-making, there is every

reason to believe that the distinguished visitors will not regret having come to this metropolis for a week's interchange of experience and ideas.

It has been arranged that the afternoon of Tuesday will be set apart for a special meeting of the Congress for the consideration of "The Education and Registration of Plumbers in relation to the Public Health." It is hoped that the meeting will be presided over by Mr. Ritchie, President of the Local Government Board. The meeting will be attended by representatives of local organizations, including the mayors, chairmen of health and sanitary committees, and medical officers of health of the chief cities and towns of Great Britain and Ireland.

A representative committee has been formed with the object of making known the aims and work of the Congress in India and Ceylon.

The Government of India have recommended a number of officers, retired or on leave, to represent their provinces at the Congress. Most of the Indian Chambers of Commerce, who are particularly interested in the quarantine question, have nominated delegates. The Universities, the leading municipalities, and other bodies will also be represented.

The Nizam of Hyderabad, the Gaekwar of Barod, the Maharajah of Jeypore, and the Maharajah of Bhavnagar, have each subscribed £100, and the Maharajah of Cooh Behar, has contributed £50. Subscriptions have also been received from the Rao of Cutch, the Nawab of Junagarh, the Maharajah Bahadur of Tippera, and others.

On Thursday afternoon, at 3 o'clock, a special Indian meeting, open to all delegates and members, will be held in the theatre of the London University, when papers on sanitary progress in India will be read by Surgeon-General Sir W. J. Moore, K.C.I.E., honorary surgeon to the Queen-Empress, Surgeon-Major T. H. Hendley, C.I.E., Residency surgeon, Jeypore, and Mr. Muncherjee M. Bhownagree, C.I.E., delegate of the Bhavnagar State.

Every endeavour will be made to make the visit of the Congress pleasant and instructive to the members, and to enable them to see to advantage whatever England has to show which is of interest from the point of view of sanitation, science, art, and archaeology. A special handbook for London is being prepared by Messrs. Cassell and Co. This handbook will be printed in French and English, will contain several maps and plans, and will be mainly devoted to those matters which have a special interest for members of a Congress of Hygiene and Demography.

A Congress badge, from a design by Mr. Thomas W. Cutler, and approved by his Royal Highness the president, will be provided.

The Royal College of Surgeons has decided to give a *conversazione* in the Hunterian Museum and Library of the College in Lincoln's-inn-fields, on Monday.

The Royal College of Physicians will receive members of the Congress at a *conversazione* to be given at the College in Pall-mall on Wednesday. Baroness Burdett-Coutts gives a garden party at Holly-lodge, Highgate, on Tuesday.

On Thursday, at 6 p.m., the members of Congress will dine together at the Crystal Palace, Sydenham, and in the evening a special display of fireworks will be given.

Sir Donald Currie has invited a limited number of members to luncheon on board the Drummond Castle. During the afternoon arrangements will be made for a visit to the drainage outfalls at Barking and to the Becton Gasworks.

The Metropolitan Asylums Board will arrange for a limited number of members of the Congress to inspect the River Managers' Ambulance Service, and to visit the hospital ships at Long Reach on Friday.

The Ladies' Committee will hold a reception at the rooms of the National Health Society on Wednesday, and there are many other appointments, social and scientific, including an invitation from Sir Henry Thompson, who has offered to meet and receive a party of members at the Crematorium at Woking on a certain day during the Congress week.

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conversant with the branch of knowledge to which they relate. Many others are of wide public interest, and, among these, perhaps the foremost place should be given to the work of the fourth section, which embraces all matters relating to infancy, childhood, and school life. The truth of the assertion that the future of any country must largely depend upon those who are now children is so obvious that it does not require to be sustained by argument; but, nevertheless, the hygiene of children cannot be said to have received the systematic attention which its importance would seem clearly to demand. A short time ago much was heard about the evil effects of educational "pressure," especially in the case of the underfed, upon the physical well-being, on which, after all, intellectual growth and activity must finally depend; but the discussion or controversy has not only long since subsided, but it has subsided without leaving behind it any appreciable addition to the sum of human knowledge upon the questions which it raised. The children, then commonly described as underfed, were the very poorest class of these in attendance upon elementary schools; but complaint has often been made, and made not without reason, that the feeding of children at public schools for the rich is such as to leave a great deal to be desired. A not unknown history is for a master of abounding professional accomplishments to be in due time promoted to the occupancy of a "house" for the reception of boarders, and for him then to marry a lady gifted with every charm, but in whose education the great subject of domestic economy has held only an inconspicuous place. She may possibly imagine that cucumbers grow in slices, and that whiting swim about with their tails in their mouths. The young couple engage a steward and a housekeeper, who may possibly rob them with both hands, and they enter upon what is practically not very different from hotel keeping. The result is that delicate boys may be half starved in the midst of coarse and unappetizing plenty; and that those parents whose attention is directed to the matter are compelled, not only to pay a very sufficient price for board, but also, when they have done so, to supplement the school fare, often injudiciously, and often to such an extent as to render the children practically independent of it. The nutrition of the young may be said, indeed, to underlie every other problem connected with education; and it requires to be studied with due reference to the powers of digestion and assimilation which belong to those in whom the nervous system has for many generations been cultivated somewhat at the expense of the more purely animal parts of our nature. As the coming generation must depend for its capacities upon those who are now children, so the future of those children must depend, in great measure, upon the judicious conduct of the educational period; and the Congress will render great public service if it will in the first place seek to determine, and then to diffuse and to popularize, the principles by which this conduct should be guided. As next in importance to the management of childhood, among the subjects to be discussed in the Congress, we should be inclined to mention that of the danger attendant upon consuming the meat or milk of tuberculous animals; and there is certainly none concerning which there is more need of the

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Much question has arisen, from time to time, with regard to the utility of congresses; and they have been represented as owing their chief attractiveness to the circumstance that they afford happy hunting grounds for bores and faddists, and opportunity for pleasant picnics under the disguise of science. There is, no doubt, some element of truth in both suggestions; but it must be remembered that no human institution, not even a congress, is free from liability to be abused, and to be abused, moreover, in either of the two senses in which the word is commonly employed. Among a multitude of people, brought together from almost all countries, to talk upon almost all subjects, there must inevitably be some whose talk will not be according to knowledge; but it should not be forgotten that the power of seeking more instructive matter in another section, or even of studying the humours of the London streets, is one which will always remain to the wearied listener. When due allowance has been made for the tedious repetition of known facts, and for the exuberance of fallacious or inconclusive arguments, it must at least be admitted that great questions cannot be debated, especially by that multitude of counsellors among whom SOLOMON has taught us to seek for safety, without the elements of truth contained in conflicting opinions being rendered prominent, nor without the exercise of a powerful influence upon the general state of public opinion. Such an influence is usually slow in asserting itself; but the slowness is not incompatible with irresistible force. In nearly all social matters, and especially in matters relating to the health of communities, there can be no beneficial control, either by law or custom, which is not rooted in knowledge; and men of science, who are of necessity in advance of the great majority of their contemporaries, can fulfil no more useful function than that of sowing good seed in the public mind, so as to promote the advent of the time when that which at present is the property of a few may become available for the protection of the many. For the attainment of results it is necessary to have patience; the quality, of all others, which has most often been wanting to reformers. Nothing great was ever done in a hurry; nothing is born full grown. Whatever else the Congress may do or may fail to do, we may at least encourage the hope that it will fully elucidate the meaning of "that blessed word" demography. Etymology would seem to connect it with the study of races or peoples; but that is evidently a far wider subject than the Congress proposes to itself. On this point, then, we are still almost entirely in the dark; and the latest official programme still shrouds the matter under a veil of impenetrable mystery. It tells us only that, on certain days and at certain hours, papers "on" or "relating to" demography will be read by various persons of distinction. When the precise subjects of these papers are made known, we shall doubtless be able, by some process of induction and of exclusion, to ascertain something about the scope and objects of the new science. Until then, the conception of a demographer must be

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THE CONGRESS OF HYGIENE.

The seventh International Congress on Hygiene and Demography was opened yesterday, in St. James's-hall, by his Royal Highness the Prince of Wales, who delivered an inaugural address. The hall was crowded in every part by members of the Congress, every important country in the civilized world being represented, but, of course, by far the larger number of delegates came from European countries, particularly from France, Germany, Italy, and Austria. There was also a remarkably influential representation of India, and nearly all the British colonies also sent delegates. Punctually at 3 o'clock his Royal Highness, accompanied by Sir Douglas Galton (chairman of the organizing committee), Sir James Paget, Sir T. Spencer Wells (chairman of the reception committee), Surgeon-General Cornish (chairman of the finance committee), Professor W. H. Corfield (hon. foreign secretary), Dr. Poore (hon. secretary-general), and many other executive officers of the Congress, entered the hall, the organ playing the National Anthem. At the same moment the vast and distinguished audience, which included many ladies, rose, and when the organ ceased, gave the Prince a most cordial welcome. Prominent on the platform were many eminent foreign professors and doctors. Near the Prince sat Sir Douglas Galton and Sir James Paget, while among the others in the immediate vicinity were Lord Wantage, Sir Harry Verney, Sir H. Roscoe, Mr. Bardett-Coutts, Sir J. R. Bennett, and Sir E. Goldsworthy. Many of the foreign delegates wore uniform and decorations, with the result that the aspect of the audience was varied and brilliant.

Shortly after the Prince ascended the platform he was handed a gold badge of the Congress as President, and he then called on Dr. Poore, who announced letters expressing regret at the inability of the writers to attend from his Royal Highness the Duke of Edinburgh, his Royal Highness the Duke of Connaught, his Royal Highness the Duke of Clarence and Avondale, his Royal Highness the Duke of Cambridge, his Serene Highness Prince Christian, the Duke of Westminster, and several other distinguished personages.

SIR DOUGLAS GALTON, who was called upon by the Prince, said he, as the mouthpiece of the International Permanent Committee of the Congress appointed at Vienna, had the honour to present to his Royal Highness the report of that committee. The report was as follows:—

"The Permanent International Committees of Hygiene and Demography, appointed at the Congress held in Vienna in 1887, beg to report that the English members entrusted with the organization of the present Congress—viz., Sir Douglas Galton, Professor Corfield, and Mr. Shirley Murphy, together with other English members of the Vienna Congress—viz., Sir Spencer Wells, Professor (now Sir George) Humphry, Dr. Charles Cameron, M.P., Professor Frankland, and Dr. Mapother—issued a letter inviting co-operation in the formation of a general committee. This committee at its first meeting elected an organizing committee, of which Sir Douglas Galton was elected chairman, and Professor Corfield and Mr. Shirley Murphy honorary secretaries. A public meeting was held at the Mansion-house, by the kind permission of the late Lord Mayor of London, to make the Congress more widely known, and was largely and influentially attended. A meeting of the permanent committee was held in Paris at the time of the International Exhibition in 1889, at which there were present Dr. Brouardel (chairman), Sir Douglas Galton, Professor Corfield, and Mr. Shirley Murphy, as members; and also Dr. Napias, Dr. A. J. Martin, and Dr. Mapother. Subsequently to this his Royal Highness the Prince of Wales graciously accepted the post of President to the Congress, and presided at a meeting of the general committee held in London, at which Professor Corfield was elected honorary foreign secretary, and Dr. G. V. Poore honorary general secretary of the Congress, Mr. Shirley Murphy having resigned his position as secretary of the organizing committee, on account of the pressing nature of his duties as medical officer of health of the London County Council. It having been left to the English committee to select representatives for Egypt and Japan on the permanent

committee, they have elected Dr. H. R. Greene Pasha to represent Egypt and Dr. Shimpei-Gotoh to represent Japan. A number of additional members have also been elected to the committee for the purpose of the present Congress. The work of the Congress has been arranged in two divisions—viz., hygiene and demography—and it has been found necessary to divide the former into nine sections, each under a separate president, and with separate organization. Committees have been organized in foreign countries to further the interests of the Congress in a more direct manner than could be done from England. Delegates have been appointed by all the Governments of Europe, and also by the United States, Mexico, Venezuela, Japan, Persia, Egypt, by the provinces and native States of the empire of India, by the most important colonies, and also by numerous municipal authorities, Universities, scientific and medical societies, and other institutions throughout the world, and large numbers of the most important authorities on the subjects to be treated have sent communications to be laid before the Congress. The permanent committee have, therefore, every reason to believe that, under the presidency of your Royal Highness, the Congress will be in every way worthy of the occasion, and will contribute largely to the promotion of sanitary science in all parts of the world."

Sir Douglas, proceeding, said that Congress, which had the advantage of being presided over by his Royal Highness, had, in consequence of that, received a degree of support from the whole British Empire which was unparalleled. (Cheers.) The Congress at present numbered more than any previous Congress. They had delegates from almost every country—certainly from every important country—in the world. They had also delegates from many British colonies, but he especially desired to emphasize that they had received a very large support from the British Indian Empire. (Cheers.) They had received large subscriptions from various native Princes, and they had about 70 delegates coming from India, many of whom were non-official delegates, and he believed that it was the first time in the history of the Congress—even in the history of every Congress—that India had contributed so largely to a meeting of this nature held in Europe. (Hear, hear.) He would not trouble his Royal Highness with any further remarks, but he would point out that the organizing committee had endeavoured to do all in their power to make the Congress a success, and that if there were any shortcomings they would endeavour to remedy them before the end of the meeting. (Cheers.)

His Royal Highness the PRINCE OF WALES, on rising to deliver the presidential opening address, was received with loud and prolonged cheering. He said:—Sir Douglas Galton and Gentlemen,—It gives me great pleasure to open the proceedings of this Congress and to offer a hearty greeting to all its members, especially to those whom it has induced to come from distant countries. Many as have been the meetings for good purposes over which it has been my good fortune to preside, there has very rarely, if ever, been one of which the object has been approved by a greater weight of authority. The importance of our Congress is proved, not only by the large number of members who have assembled here to-day, but by the names of those who are on the list of its officers, both honorary and active. Under the Queen's patronage this list includes, together with several members of my family, some of the principal members of her Majesty's Government, the presidents of nearly all the medical corporations, representatives of the Universities and of the chief medical and scientific societies in the United Kingdom, delegates from nearly every great country in the world and from all our sanitary institutions and medical schools, many official representatives of our colonies and India, the Lord Mayor and Sheriffs of the City of London, the masters of several of the City companies, and a great majority of those who, here or elsewhere, have gained the highest renown in the study of public health or of the sciences most nearly allied to it. All these approve of the design of the Congress, and they may well do so, for in so far as its object can be fulfilled it will everywhere bring good to all classes of society. (Cheers.) As one looks through our programme, it is impossible not to feel distress and even horror at the multitude of dangers to health in the midst of which we have to live. Some of them appear at present to be inevitable, but the great majority may certainly with due

care be averted. I cannot pretend to be able to judge but of a few of these dangers, but I would take as examples those to which my attention was especially drawn when I was a member of the Royal Commission on the Dwellings of the Working Classes. (Cheers.) I learned much there of the dangers to health which may be ascribed to the constant increase of our great manufactories and to other industries from which especially come the overcrowding of our towns, the building of huge factories, the pollutions of our atmosphere, the accumulations of refuse, the fouling of rivers, the impurities of earth and air and water. (Cheers.) I learned not only these dangers, but the immense difficulty of increasing or even maintaining our activity in all branches of trade without incurring heavy risks to health, more particularly in our chief centres of population. The task of averting them might have appeared hopeless, but I have rejoiced to see how much has already been done in diminishing them and to observe how our registers bear witness to the decreasing mortality in our large towns (hear, hear), to the increasing average length of life in the whole population (hear, hear), and to many facts proving the good influence of our sanitary institutions. But on them I do not now propose to dwell; I will only conclude from them that the good already done, and the constantly increasing knowledge of the whole subject, may make us sure that much more good may still be attained, and that neither this nor any other nation should be content until prosperity in business and all other things desirable for the national welfare are made consistent with national good health. (Cheers.) How the many dangers which our programme indicates may best be dealt with will, of course, be discussed in the several sections. It will be no trivial work if their sources and probable remedies can be clearly pointed out, and, especially if this can be done, as in a Congress such as this it should be, in a strictly scientific manner, calmly and dispassionately, without any reference to either general or municipal politics, or for any other purpose than the promotion of health. (Cheers.) It is only on conviction such as may thus be produced that the appointed sanitary authorities can compel the changes necessary to be made, for such changes are almost always inconvenient or injurious to some, and might even seem unjust to them, unless it be made quite clear that they would be very beneficial to the community. (Hear, hear.) But my hope is that the work of this Congress may not be limited to the influence which it may exercise on sanitary authorities. It will have a still better influence if it will teach all people, in all classes of society, how much every one may do for the improvement of the sanitary conditions among which he has to live. I say distinctly "all classes," for although the heaviest penalties of insanitary arrangements fall on the poor, who are themselves least able to prevent or bear them, yet no class is free from their dangers or sufficiently careful to avert them. (Hear, hear.) Where could one find a family which has not, in some of its members, suffered from typhoid fever, or diphtheria, or others of those illnesses which are especially called "preventable diseases"? Where is there a family in which it might not be asked "if preventable, why not prevented"? (Cheers.) I would add that the questions before the Congress, and in which all should take personal interest, do not relate only to the prevention of death or of serious diseases, but to the maintenance of the conditions in which the greatest working power may be sustained. In this I include both mental and bodily power; for the highest possible prosperity must be when men and women of all classes, rich and poor alike, can safely do such good and useful work as they are fit for, and for which they are responsible to those among whom they live. To this end it is essential that they should enjoy the best possible health and vigour, and to obtain these it is necessary that everything possible should be done for the promotion and maintenance of the national health. Such, then, is to be your work; let me say our work, for though I cannot further contribute to the proceedings of the Congress, I shall watch them with much interest, and shall always

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strive to promote whatever may be here plainly shown to be useful for the public health. (Loud cheers.)

Replies to this address of welcome were then delivered by several foreign delegates. The first was in French by Dr. BROUARDEL, Dean of the Faculty of Medicine of Paris. He said:—

In the name of the French members of the Congress of Hygiene and Demography I offer our respectful homage to his Royal Highness the Prince of Wales. We pray that he will convey to her Majesty the Queen of England the expression of our most heartfelt thanks. Her Majesty has graciously deigned to accord to this Congress her Royal patronage, and we hope that the work achieved by it will justify this mark of her gracious approbation. We are aware that in England public opinion is ready to second our efforts; we have a sure guarantee of this in the history of the last half-century. In the year 1837, the year of the coronation of her Gracious Majesty, appeared the Act which rendered obligatory the registration of deaths. This Act inaugurated the era of administrative reforms concerning the public health which our valued colleague of the Local Government Board has rightly called "the Victorian era." This Act did not long remain alone. Under the impulse given by two of your most illustrious patriots, William Farr and Edwin Chadwick, you have organized a system of registration of the causes of diseases and of deaths. Certain important cities, before the law made it obligatory, obtained supplies of water beyond all suspicion of pollution, and adopted systems of removal of foul water and waste matters. In these cities, whose action cannot be too much praised, the sickness and death rates diminished rapidly; this furnished the necessary proof—it was time for reform. Twenty years ago the Local Government Board was established, and in 1875 had submitted to Parliament a Bill for the protection of the public health. During its discussion in Parliament one of your greatest Ministers (Disraeli) pronounced in the House of Commons these memorable words, which should be repeated in all countries and in all Parliaments:—"The public health is the foundation on which repose the happiness of the people and the power of a country. The care of the public health is the first duty of a statesman." Since this each year you have made fresh improvements in your sanitary laws; if in your eyes they are not perfect, in the eyes of the nations who surround you they are an ideal towards which all their most ardent aspirations tend. It is your example they invoke when they claim from the public authorities the powers necessary to oppose epidemics, to combat the scourges which decimate their populations. You have taken the first rank in the art of formulating laws for the protection of health; this is not all that you have done in the domain of hygiene. Among the diseases which one can properly term pestilential, there are, thanks to the work of the hygienists of all countries, certain ones which from the present time may be considered as preventable—such are smallpox, typhoid fever, dysentery, and cholera. For one of these, the most terrible, the immunity conferred by vaccination is absolute. The person upon whom this immunity is conferred can pass through the most severe epidemics and expose himself to all sources of contagion without being affected. Who is it who thus preserves from death, from blindness, from infirmity millions of human beings of all countries and of all races? On the 18th of May, 1796, a date which might well be the date of a great battle, Jenner inoculated with vaccine matter by means of two superficial incisions the youth James Phipps. Protection against smallpox belongs to you; the world will be to you for ever obliged. Let us consider two other epidemic diseases. Is it possible to establish the conditions of propagation of typhoid fever without quoting the names of Edd and of Murchison? I am aware that in 1855 Dr. Michel de Chaumont had for the town in which he lived experimentally established the rôle played by drinking-water in the propagation of this disease; unhappily public opinion was not prepared, and his discovery was not listened to. In the work which we are considering the efforts of the English school were most fruitful. May I recall the fact that it was the epidemic of cholera in 1866 in England which gave birth to the theory of its propagation by drinking-water? Was it not at that date that, under the influence of your hygienist Sir John Simon, the Lords of the Privy Council issued an order formulating the laws of prevention which we adopt to-day? Certain it is that even in England these discoveries have not immediately borne all their fruit. The anti-vaccination leagues are not yet

dead. Proofs accumulated during a century have not sufficed to open all eyes; it is not only physically that persons are born blind. After the enthusiasm which each discovery receives come the difficulties of application, doubts, reactions. In the country of the great Harvey it is not necessary to recall the laws which govern the human mind. Has the glory of him who discovered the circulation of the blood been lessened by the redness of strife? Be assured that that of the English hygienists will survive present difficulties. It will survive, because the benefit derived from these discoveries is international and is not limited to a single people. We all of us praise the success of our neighbours; we know that our compatriots will find in it an advantage to their comfort, their health, and their lives. In this career there are rivals, but not enemies. But if the benefit is to all, the glory is to one alone, and that country has the right to be proud of the moral authority which the genius of one of her children gives her. For the last 15 years medical doctrines, especially those most concerned with hygiene, have undergone a revolution which surpasses in importance all those of which history has taken notice. Can France be represented in a Congress of Hygiene without recalling the name of M. Pasteur? For centuries we have asserted that epidemic diseases were propagated by means of contact, by the air, by effluvia, by miasma. The idea of morbid germs, if not the name, is even found in the works of Hippocrates, but in what an uncertain sense! The theory of contagion has passed from uncertainty to century with strange modifications; the difficulties of observation bound up together truth and error. It remained for Pasteur to prove the existence of these germs, their form, their life, their mode of action, and by their attenuation to solve the problem of immunity. Thanks to his works, and thanks to those of his pupils, realities have succeeded to contingent possibilities. We know some of our enemies, their habits, and their mode of penetrating the body; up to this time man was conquered by these infinitesimal beings, but thanks to recent discoveries he will be their conqueror. When at the beginning of a century one can inscribe the name of Jenner, and at its end that of Pasteur, the human race may rejoice; more has been done for it against misery, disease, and death than in any one of the centuries which have preceded it. You, gentlemen, have been the initiators; this title will never be disputed with you. When a great people has given such an example: when by her gracious patronage her Majesty the Queen, and when, by his presence, his Royal Highness the Prince of Wales testify that for them this era of reforms is not closed, it is only right that those who try to imitate them and to give their country similar institutions should come to bring to that people and to their Sovereign the homage of their profound respect. Gentlemen, I will finish by addressing to the City of London our sincere thanks for the gracious reception which she has given to her guests. Thanks to you, we shall bring together here an association of ideas and of men. This task will be made easy for us by the preparations of the Organizing Committee. If the success of the Congress answers, as I have no doubt that it will, to our expectations, it is to the Organizing Committee that we must assign the honour. We beg Dr. Corfield, who has undertaken the severe task of conducting the foreign secretarial work of the Congress, to accept our personal thanks. Gentlemen, France hopes that the London Congress will occupy a place of honour in the lists of the Congresses of Hygiene. (Cheers.)

PROFESSOR CORRADI, of Pavia, delivered an address in Italian, of which the following is a translation:—Your Royal Highness, Ladies and Gentlemen,—I bring you the homage and the salutations of Italy. Ancient are the chains which bind my country with England, and science has made them more lasting. Lanfranc, of Pavia, and Anselm, of Aosta, restored in the eleventh century learning to Canterbury, and from among the students of our Universities the English nation took them. But already Robert of Anjou was among the rectors who opened, in the year 1205, our University at Vicenza, having removed from Bologna, where a little before the poet Guelfido had taught literature with great success, and where a little afterwards Alano, the universal doctor, rendered famous the chair of Canonical Law. The teachings and the discipline of the Italian schools entered with scholars become teachers into Oxford and Cambridge, and the traditions were maintained. But if these had become chains of habit a more intimate connexion followed in the sixteenth century. William Harvey reunited indissolubly in the field of science the names of the two nations by giving the demonstrations of a fact of which in the Anatomical School of Pavia the fundamental principles were found; but instead of partial portions and scattered or uncertain ideas he evolved a complete system under which all is known in the greatest simplicity. The discovery of the circulation of the blood is the most solemn testimony that one begins great things and another finishes them.

This remarkable event signaled one of the greatest moments in the history of science, not only by the fact itself, but by the new spirit which it induces into biology, in which is the foundation of hygiene. Moreover, to recall here the names of the Doctor of Folkestone, and of the Hospital of St. Bartholomew, the *stator perpetuus* of the Royal College of Physicians of London is to forbode well of the Seventh International Congress of Hygiene; the glory of Harvey is reflected upon his predecessors, his masters; to salute him is to salute both Italy and England, who affectionately join in celebrating his immortal name.

Mr. JOSEPH KÖRÖSI, Director of Municipal Statistics of Budapest, said:—As a representative of statistical demography in Austria-Hungary, I beg to be allowed to express in a few words our sense of deep gratitude for the honour which has been bestowed upon us by the patronage of her Majesty the Queen, and by the presidency of his Royal Highness the Prince of Wales. It is not for the first time that the representatives of statistical science have been called upon to meet under the patronage of your great Queen, and to work under the protection of her illustrious Throne. Thirty years have passed since the International Statistical Congress met in this hospitable town to do its fruitful work. Your place, your Royal Highness, was taken then by your illustrious father, who spoke to us those ever-memorable words of wisdom and benevolence, which have shone upon the path of statistical science ever since, and which are still gratefully remembered by us. While deeply moved by gratitude towards our Royal president for the interest taken by him in our work, we cherish in our hearts as well the memory of the illustrious deceased. But it is not to single persons only that our gratitude is due: we have to thank all England, the genius of the great English nation, for it is England whom, among all nations of the world, we must consider the mother country of statistics, especially of demography. This branch of science, the very nucleus of statistical work, which, in fact, is quite a science in its own right, has chosen the task of investigating the laws which regulate the life, increase and decrease of nations. Its work, therefore, comprises three main parts—statistics of natality, of mortality (this part including biometry), the science of measuring the during of human life, and of the increase of population. And when inquiring now who were the founders of this new science, we shall hear unanimously quoted the names of England's sons—Graunt, Petty, Halley, Malthus. Gentlemen, to-morrow, when we are about to begin our work, we shall meet within the venerable hall of the Royal Society. It was in the old room of this society, then in its very first youth, but soon rendered conspicuous to the world by the genius of Newton, that Graunt, 230 years ago, established for the first time the problems of demography, and that the King himself, admirably appreciating the work done, recommended that the author should be received as a member of the learned society. The Congress of Hygiene and Demography will continue his work on the very birthplace of demography. It was there that, shortly afterwards, Sir William Petty, by the eminent power of his genius, raised the new science to political importance and to popularity, and it was again there that in 1693 the famous Halley became the founder of biometry, the most important part of demography, by working out the first "table of mortality." And now the young science, which two centuries ago left those halls, shy, and even without a name, passing through the world under the pseudonym of "political arithmetics," has found its way over the whole globe. Having been worked out in Germany, having received a name and new ideas in France, and having been enlarged and imbued with a more scientific character in Belgium by Quetelet, having got its well-equipped offices in every country of the civilized world, we are proud to see its numerous representatives meet at the same place, where two centuries ago the science was born. Yes, after a triumphant career of 230 years it returns to its home, in which it awoke to light, and again the Throne of England receives it with favour and benevolent interest. For demographic not less than for all statistical work it is of the highest importance that its representatives, scattered as they are over the whole globe, should fully understand each other, for only so can we accomplish what we aim at, that our observations comprise equally all countries of the world, that our researches are conducted and worked out on the same principles everywhere, and that we may combine the incomplete and often discrepant observations of single nations in a full descriptive history of all civilized mankind. This was the highest aim of the past statistical congresses; this was the chief inheritance of the following

demographical congresses and the International Institute of Statistics, and it must be recognized that both scientific bodies have done a great deal for the unification of demographical statistics, and especially for that of census results. This great aim fully deserves the praise the illustrious Prince Consort bestowed upon it 30 years ago. He said:—

"The importance of congresses cannot be over-rated; they not only awaken public attention to the value of these pursuits and bring together men of all countries who devote their lives to them, and who are thus enabled to exchange their thoughts and varied experiences, but they pave the way to an agreement among different Governments and nations to follow up these common inquiries in a common spirit by a common method and for a common end."

May we, the statisticians of a second generation, add a little during this congress to the great international work before us, and may to our successors the memory of this congress and the name of its Royal president be as dear to us as the memory of the former congress and its illustrious president.

Dr. W. ROTH, Surgeon-General of the army of Saxony, said:—Your Royal Highness, My Lords, Ladies, and Gentlemen,—It is with the greatest pleasure that I comply with the request to address this meeting on behalf of the German Committee for the International Congress of Hygiene. A hygienic congress in England is an event strikingly in accordance with the character of English life. It is unquestionable that, in the whole field of hygiene, England has been foremost in practical work, thanks to the great number of eminent men who have devoted their powers to the subject. But while fully acknowledging the prevalent importance of their work, it must be confessed that it is the wealth of this great country which enabled them to create their sanitary institutions we have before us, and the gigantic scale of which is a surprise to us. It is quite a peculiarity to England to conduct experimental researches on a grand scale, and we may say truly that England saves the trouble of experimental investigation. And while we in Germany fully acknowledge the splendid sanitary work done in England, we cannot fail to see how all the work in this branch of science is facilitated by the character of the English people, who, conservative as they are, apply themselves zealously to everything new the practical necessity of which they are convinced of, and do away with all minor obstacles, especially the financial ones. No book reading can give us a full idea; we have to come and look ourselves, to become acquainted with the numerous institutions devoted to the welfare of mankind and to get familiar with the great questions of self-government, the deficiencies of which, especially the frequently contradictory character of its local institutions, we must, however, not overlook. Certainly it is with the highest interest that we study the institutions of England. But as well as the practical work done in England, we have to admire the progress in the science of hygiene, flourishing in England at a time when the German Universities just began to give their attention to the subject. We are in duty bound gratefully to acknowledge the great progress in the science of hygiene, which is due to the influence of the school at Netley. And of the many eminent men who worked there I mention one who is no longer among us, but whose memory will be dear to everyone who takes an interest in the welfare of our soldiers and in the progress of our science—Edward Alexander Parkes. Till his death in 1876 his lectures at Netley attracted all those who took an active interest in the progress of hygiene. A man of the highest faculties, with an almost womanly tenderness of heart, and with the purity of a child, he was sure to make the deepest impression upon his fellow-workers. A lasting monument of Parkes is his "Manual of Practical Hygiene," which has become the base for extensive hygienic work. And we must not forget to mention his friend and successor, De Chaumont, who proved to be his best fellow-worker, and who did some eminent work in questions of practical hygiene. On this important occasion I thought it right to recall the memory of these two eminent workers in our branch of science. I conclude by expressing the wish that it will be the spirit of Parkes which will guide the transactions of this Congress. The Parkes Museum was the first institution to allow of a practical instruction in hygiene; at the same time it shows what his ideas, his aims were as to the generalization of hygienic knowledge. May this Congress follow his steps, and may its work tend to impart to wider and wider circles that which Parkes called the aim of his life—purity and light!

PROFESSOR VON COLER, Director-General of the Prussian Army Medical Department, also spoke of the inestimable advantages which had been derived from the practice of hygiene amongst troops.

SIR JAMES PAGET then rose to move a vote of thanks to the Prince of Wales for presiding. He said he thought that they should offer their most cordial thanks to his Royal Highness for his goodness in accepting the office of president, and for the manner in which he had conducted the business of that day. (Cheers.) He might, perhaps, be permitted to say that none knew better than himself the immense advantage that the Congress might derive from the presidency of his Royal Highness, for none could remember more clearly the great advantage which was derived by the International Medical Congress in 1881 from his Royal Highness's patronage, and from his presence on the first day of its meeting. His Royal Highness might well approve of the design and purpose of the Congress, for if one might define, or attempt to define, that purpose, it would be that of attempting to find out the means by which the population of every nation in the world might attain as soon as possible the highest possible level of health both of body and mind. Every section of the Congress was a part of one great design; its work was undertaken in concord with that of all the other sections, was open to the criticism of every other division of the Congress, and was ready to work in concord with all others to a common end. (Cheers.) That was indeed well shown, not only in the width, but in the variety, of the subjects which were to be considered in the Congress. As one looked through them, one could not but suspect that some who called themselves very practical men might think that there was a good deal in the programme that could never come to anything like utility. The whole history of science would show that the highest utility had commonly been derived from the profoundest depths of scientific research. (Cheers.) He would urge the necessity of the pursuit of the most scientific subjects as tending necessarily to the advance of knowledge in regard to the national health. That was the reason why Governments might well encourage the investigation of those subjects. It would be well for the voice of that unanimous Congress to make it clear to every Government in the world that it was part of its duty to promote the cultivation of the deepest scientific research, as much as it was to promote the ordinary routine work necessitated by sanitary progress. (Loud cheers.)

Dr. GEORGE BUCHANAN (chief medical officer of the Local Government Board) seconded the vote of thanks, which was carried with enthusiasm.

His Royal Highness the PRINCE OF WALES, who was received once more with hearty cheering, said:—If I have to undergo the ordeal of returning thanks for the proposal which has been made to you, the ordeal has been made a very pleasant one by the very kind terms in which my old and valued friend Sir James Paget has introduced it. I must also offer my most sincere acknowledgments for the very kind way in which you have received it. We have all heard with the deepest interest the addresses which have fallen from the lips of those distinguished foreign delegates who have addressed us to-day. Those who are familiar with the languages in which they spoke cannot but have been deeply impressed by what they said. It would be superfluous in me to hark back, if I may use the term, to the subject that is before the Congress and to allude further to what I had the honour to say to you, and what has fallen from the lips of such abler men. But most heartily do I congratulate the Congress on the large attendance of to-day, which augurs well for the work that they have before them. If the time they have before them is unfortunately not long, I am sure we have reason to be very grateful to those distinguished men from all the different countries in the world who have attended here to-day and intend to give their attention to the work which is before them. I am glad to say, in allusion to the proposals which have been made, that I have occupied your time at considerable length with two measures, one of which is to be introduced to the Congress by Sir James Paget, and the other by Sir George Buchanan. I have occupied your time at considerable length with two measures, one of which is to be introduced to the Congress by Sir James Paget, and the other by Sir George Buchanan. I have occupied your time at considerable length with two measures, one of which is to be introduced to the Congress by Sir James Paget, and the other by Sir George Buchanan. I have occupied your time at considerable length with two measures, one of which is to be introduced to the Congress by Sir James Paget, and the other by Sir George Buchanan.

A Congress which falls naturally into two divisions, one of which is afterwards made to furnish forth nine sections, all in active operation at the same time, is enough to drive to despair those whose duty it is to chronicle the events of the day. The Congress of Hygiene and Demography exactly fulfils the prescribed conditions; and, departing from the practice of its predecessors, the almost-forgotten meetings of the National Association for the Promotion of Social Science, its presidents of sections have all delivered their inaugural addresses on the same day. It is not impracticable to multiply reporters; but it is absolutely impracticable to escape from the consequences of the impenetrability of matter. Our columns are subject to the limitations which arise from the impossibility of printing reports of two subjects on the same surface; and we are therefore compelled to be less liberal, in our dealings with each section, than the importance of the subjects discussed and the eminence of the men who discussed them would naturally lead us to desire. We can do little more than chronicle the fact that this or that subject was before a section; and any account of the fruits of the discussion must be reserved until they become clearly manifest. As will be seen from our report, the sections all met and the presidents of sections delivered their addresses. SIR JOSEPH FAYER, as president of the first section, that of hygiene, which, indeed, might almost seem to include several of the others, drew an interesting picture of the gradual progress of sanitation from the Middle Ages downwards, and showed how the Black Death and other plagues with which our ancestors were familiar, had by degrees given place to the comparatively mild epidemics of modern times, and that in circumstances which justified the hope of the ultimate abolition of epidemics altogether. In the meanwhile, he showed that the cost of preventable disease to the community was something like eight millions sterling per annum; and he based upon this costliness of sickness a very complete justification of public interference for the preservation of health. DR. CUNNINGHAM, well known as one of the most active of the sanitary reformers of India, followed with a paper on the modes of preventing the spread of epidemic disease from one country to another, in the course of which he referred to the question of quarantine, and demonstrated, as many others have done before, its absolute futility. Abuses die hard; and quarantine, which for the last quarter of a century has been condemned as useless by every physician who has studied the subject of the communicability of disease, appears to have survived as an homage paid by politicians to the ignorance of the vulgar. No one who understands the question could be found to support quarantine before a scientific audience; but it nevertheless continues in full activity, and there are countries in which any proposal to abolish it might not improbably give occasion to popular tumults. As we said yesterday, the present aim of sanitary reformers should be to educate rather than to legislate.

In the section embracing chemistry and physics, SIR HENRY ROSCOE delivered an address which seems to have been marked by a somewhat unusual degree of the not uncommon determina-

demographical congresses and the International Institute of Statistics, and it must be recognized that both scientific bodies have done a great deal for the unification of demographical statistics, and especially for that of census results. This great aim fully deserves the praise the illustrious Prince Consort bestowed upon it 39 years ago. He said:—

"The importance of congresses cannot be over-rated; they not only awaken public attention to the value of these pursuits and bring together men of all countries who devote their lives to them, and who are thus enabled to exchange their thoughts and varied experiences, but they pave the way to an agreement among different Governments and nations to follow up these common inquiries in a common spirit by a common method and for a common end."

May we, the statisticians of a second generation, add a little during this congress to the great international work before us, and may to our successors the memory of this congress and the name of its Royal president be as dear to us as the memory of the former congress and its illustrious president.

Dr. W. RORR, Surgeon-General of the army of Saxony, said:—Your Royal Highness, My Lords, Ladies, and Gentlemen,—It is with the greatest pleasure that I comply with the request to address this meeting on behalf of the German Committee for the International Congress of Hygiene. A hygienic congress in England is an event strikingly in accordance with the character of English life. It is unquestionable that, in the whole field of hygiene, England has been foremost in practical work, thanks to the great number of eminent men who have devoted their powers to the subject. But while fully acknowledging the prevalent importance of their work, it must be confessed that it is the wealth of this great country which enabled them to create their sanitary institutions we have before us, and the gigantic scale of which is a surprise to us. It is quite a peculiarity to England to conduct experimental researches on a grand scale, and we may say truly that England saves the trouble of experimental investigation. And while we in Germany fully acknowledge the splendid sanitary work done in England, we cannot fail to see how all the work in this branch of science is facilitated by the character of the English people, who, conservative as they are, apply themselves zealously to everything new the practical necessity of which they are convinced of, and do away with all minor obstacles, especially the financial ones. No book reading can give us a full idea; we have to come and look ourselves, to become acquainted with the numerous institutions devoted to the welfare of mankind and to get familiar with the great questions of self-government, the deficiencies of which, especially the frequently contradictory character of its local institutions, we must, however, not overlook. Certainly it is with the highest interest that we study the institutions of England. But as well as the practical work done in England, we have to admire the progress in the science of hygiene flourishing in England at a time when the German Universities just began to give their attention to the subject. We are in duty bound gratefully to acknowledge the great progress in the science of hygiene, which is due to the influence of the school at Netley. And of the many eminent men who worked there I mention one who is no longer among us, but whose memory will be dear to everyone who takes an interest in the welfare of our soldiers and in the progress of our science—Edward Alexander Parkes. Till his death in 1876 his lectures at Netley attracted all those who took an active interest in the progress of hygiene. A man of the highest faculties, with an almost womanly tenderness of heart, and with the purity of a child, he was sure to make the deepest impression upon his fellow-workers. A lasting monument of Parkes is his "Manual of Practical Hygiene," which has become the base for extensive hygienic work. And we must not forget to mention his friend and successor, De Chaumont, who proved to be his best fellow-worker, and who did some eminent work in questions of practical hygiene. On this important occasion I thought it right to recall the memory of these two eminent workers in our branch of science. I conclude by expressing the wish that it will be the spirit of Parkes which will guide the transactions of this Congress. The Parkes Museum was the first institution to allow of a practical instruction in hygiene; at the same time it shows what his ideas, his aims were as to the generalization of hygienic knowledge. May this Congress follow his steps, and may its work tend to impart to wider and wider circles that which Parkes called the aim of his life—purity and light!

PROFESSOR VON COLER, Director-General of the Prussian Army Medical Department, also spoke of the inestimable advantages which had been derived from the practice of hygiene amongst troops.

SIR JAMES PAGET then rose to move a vote of thanks to the Prince of Wales for presiding. He said he thought that they should offer their most cordial thanks to his Royal Highness for his goodness in accepting the office of president, and for the manner in which he had conducted the business of that day. (Cheers.) He might, perhaps, be permitted to say that none knew better than himself the immense advantage that the Congress might derive from the presidency of his Royal Highness, for none could remember more clearly the great advantage which was derived by the International Medical Congress in 1881 from his Royal Highness's patronage, and from his presence on the first day of its meeting. His Royal Highness might well approve of the design and purpose of the Congress, for if one might define, or attempt to define, that purpose, it would be that of attempting to find out the means by which the population of every nation in the world might attain as soon as possible the highest possible level of health both of body and mind. Every section of the Congress was a part of one great design; its work was undertaken in concord with that of all the other sections, was open to the criticism of every other division of the Congress, and was ready to work in concord with all others to a common end. (Cheers.) That was indeed well shown, not only in the width, but in the variety, of the subjects which were to be considered in the Congress. As one looked through them, one could not but suspect that some who called themselves very practical men might think that there was a good deal in the programme that could never come to anything like utility. The whole history of science would show that the highest utility had commonly been derived from the profoundest depths of scientific research. (Cheers.) He would urge the necessity of the pursuit of the most scientific subjects as tending necessarily to the advance of knowledge in regard to the national health. That was the reason why Governments might well encourage the investigation of those subjects. It would be well for the voice of that unanimous Congress to make it clear to every Government in the world that it was part of its duty to promote the cultivation of the deepest scientific research, as much as it was to promote the ordinary routine work necessitated by sanitary progress. (Loud cheers.)

Dr. GEORGE BUCHANAN (chief medical officer of the Local Government Board) seconded the vote of thanks, which was carried with enthusiasm.

His Royal Highness the PRINCE OF WALES, who was received once more with hearty cheering, said:—If I have to undergo the ordeal of returning thanks for the proposal which has been made to you, the ordeal has been made a very pleasant one by the very kind terms in which my old and valued friend Sir James Paget has introduced it. I must also offer my most sincere acknowledgments for the very kind way in which you have received it. We have all heard with the deepest interest the addresses which have fallen from the lips of those distinguished foreign delegates who have addressed us to-day. Those who are familiar with the languages in which they spoke cannot but have been deeply impressed by what they said. It would be superfluous in me to hark back, if I may use the term, to the subject that is before the Congress and to allude further to what I had the honour to say to you, and what has fallen from the lips of such able men. But most heartily do I congratulate the Congress on the large attendance of to-day, which augurs well for the work that they have before them. If the time they have before them is unfortunately not long, I am sure we have reason to be very grateful to those distinguished men from all the different countries in the world who have attended here to-day and intend to give their valuable assistance during the work of the Congress. The outside public may occasionally sneer at the word "Congress," but I have little doubt that the interchange of ideas between ourselves and our friends on the matters of importance which will be discussed will, if we can arrive at a just conclusion, benefit not only our own country and our own cities, but other countries also, by introducing such sanitary measures as shall decrease disease throughout the world. If this result be attained we shall not have lost time, in the work which we are going through this week. (Cheers.)

The meeting then adjourned until to-day when the sectional meetings will commence their labours.

In the evening Sir Andrew Clark gave a banquet at the Royal College of Physicians to meet the Prince of Wales, and later on a *soirée* was held at the Royal College of Surgeons, at which there was a large gathering.

A Congress which falls naturally into two divisions, one of which is afterwards made to furnish forth nine sections, all in active operation at the same time, is enough to drive to despair those whose duty it is to chronicle the events of the day. The Congress of Hygiene and Demography exactly fulfils the prescribed conditions; and, departing from the practice of its predecessors, the almost-forgotten meetings of the National Association for the Promotion of Social Science, its presidents of sections have all delivered their inaugural addresses on the same day. It is not impracticable to multiply reporters; but it is absolutely impracticable to escape from the consequences of the impenetrability of matter. Our columns are subject to the limitations which arise from the impossibility of printing reports of two subjects on the same surface; and we are therefore compelled to be less liberal, in our dealings with each section, than the importance of the subjects discussed and the eminence of the men who discussed them would naturally lead us to desire. We can do little more than chronicle the fact that this or that subject was before a section; and any account of the fruits of the discussion must be reserved until they become clearly manifest. As will be seen from our report, the sections all met and the presidents of sections delivered their addresses. SIR JOSHUA FAYER, as president of the first section, that of hygiene, which, indeed, might almost seem to include several of the others, drew an interesting picture of the gradual progress of sanitation from the Middle Ages downwards, and showed how the Black Death and other plagues with which our ancestors were familiar, had by degrees given place to the comparatively mild epidemics of modern times, and that in circumstances which justified the hope of the ultimate abolition of epidemics altogether. In the meanwhile, he showed that the cost of preventable disease to the community was something like eight millions sterling per annum; and he based upon this costliness of sickness a very complete justification of public interference for the preservation of health. DR. CUNINGHAM, well known as one of the most active of the sanitary reformers of India, followed with a paper on the modes of preventing the spread of epidemic disease from one country to another, in the course of which he referred to the question of quarantine, and demonstrated, as many others have done before, its absolute futility. Abuses die hard; and quarantine, which for the last quarter of a century has been condemned as useless by every physician who has studied the subject of the communicability of disease, appears to have survived as an homage paid by politicians to the ignorance of the vulgar. No one who understands the question could be found to support quarantine before a scientific audience; but it nevertheless continues in full activity, and there are countries in which any proposal to abolish it might not improbably give occasion to popular tumults. As we said yesterday, the present aim of sanitary reformers should be to educate rather than to legislate.

In the section embracing chemistry and physics, SIR HENRY ROSCOE delivered an address which seems to have been marked by a somewhat unusual degree of the not uncommon determina-

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tion to establish the surpassing efficacy of leather. Speaking for chemists, he not only admitted, but even gladly admitted, that some portions of the fabric of the edifice of hygienic science had been laid by other hands; and he went so far as to mention physicians, together with biologists, engineers, and statesmen, as persons who had in some small measure contributed to the general result. Having paid this tribute to the members of a learned profession, whose work has commonly been held to have preceded and guided that of chemists, SIR HENRY devoted a portion of his address to the subject of London fogs, and indicated his opinion that we shall be ultimately relieved of these nuisances by the use of gaseous fuel and electric light. No doubt we might thus be freed from fogs of the dirt-laden character with which we are only too familiar; but something more than gaseous fuel and the electric light will be needed in order to overcome the natural results of the position of London on a tidal estuary, bounded for many miles by marshy or low-lying land. We shall have fogs in spite of chemistry; and we shall be more than grateful to SIR HENRY ROSCOE when he or his fellow-workers point out a practical means of freeing the fogs, which are inevitable, from the accidental constituents by which they are now so largely defiled. In the section on naval and military hygiene LORD WANTAGE called attention to the good work which has been done during the last half century, not only in providing for the wants of the sick and wounded of a campaign, but also in tracing out the causes of those which may be called camp diseases, and in enabling an army to take the field without the risk, which in former times was practically a certainty, of losing many more men by sickness than by the weapons of the enemy. In the sixth section, that of architecture in relation to hygiene, SIR A. W. BLOMFIELD seems to have been somewhat beguiled by what DR. SOUTH called "the terrible imposture" and "force of words," and to have found it somewhat difficult to bring the two subjects into harmony. His ideas of architecture were too artistic, too magnificent. If the framers of the programme had only used the words "house-building" instead of the word architecture, the difficulty would not have arisen. Nothing contributes more powerfully to the preservation of the public health than wholesome houses, in which the arts of the jerry-builder are conspicuous by their absence, and in which structural provision is made for the first requirements of health—light, air, drainage, and water supply. The making of such provision may possibly not be architecture in the technical sense; but this is at least the way in which architecture is understood by sanitary reformers.

In the second division of the Congress, the division of "Demography," there was a very large attendance, no doubt brought together by a hope of hearing the limits of the subject defined, as well as by the certainty that an address by MR. FRANCIS GALTON would contain an abundance of curious and instructive matter. MR. GALTON did not attempt the definition; but he called attention to a very curious question, and one of vital importance to every civilized country—that is, to the genesis of its better members. Do they spring from the best endowed people of the preceding generation, or from some different stratum

of society? Do those persons who have honourably succeeded in life, and who are presumably, on the whole, the most valuable portion of our human stock, contribute in the aggregate their fair share of posterity to the next generation; and, if so, do their posterity, as a rule, inherit the parental qualities, and hold or even improve their ground, or do they fail in these respects and subside into the ranks of the undistinguished? The question is one which statistical investigation is clearly calculated to solve, if it could only obtain data which should be above suspicion. The chief difficulty which besets the inquirer arises from the proneness to induction from too small a number of particulars. MR. NISBET's recent book on the insanity of genius contains much evidence which appears to show that the most distinguished men of each generation have had some morbid element which has crossed, or perhaps even constituted, their greatness; and, in whatever degree this may be true, it would tend to the production of offspring inheriting the eccentricities, as well as the powers, of their ancestors. It is said to have been established by statistical inquiry that no man who, in the course of his single life, accumulates a colossal fortune ever succeeds in founding a family, but that his descendants die out in the course of two or three generations, often becoming either insane or phthisical. History seems to teach that the continuance of great gifts, either mental or physical, for several successive generations, although not unknown, is at any rate highly exceptional; and that the rise of individuals above the current level of humanity is most frequently compensated for, so to speak, by a swing of the pendulum in the opposite direction in the case of their offspring. It is not likely that the Congress will be in possession of materials by which the question raised by MR. GALTON can be decided; but it would be difficult to exaggerate the importance of a complete comprehension of it. It involves, as MR. GALTON pointed out, two principal factors—fertility and the inheritance of qualities; and, if the facts relating to it were once fully ascertained, they would furnish means for the proper regulation of hereditary succession. At present, we fear, in so far as these facts offer themselves to the experience of a casual observer, the inheritance of great qualities is the exception rather than the rule. Perhaps, under the guidance of successive Congresses, we may at last attain to a knowledge of the manner in which the laws of heredity may be made to work for the good of the human race; and we may be able to deduce from parentage, in any particular instance, some rational notion of the powers likely to be displayed by the descendant.

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THE CONGRESS OF HEALTH.

THE PRESIDENTIAL ADDRESSES.

The practical business of the seventh annual International Congress of Hygiene and Demography began yesterday morning. Many of our foreign visitors are evidently accustomed to beginning the day betimes, for they were at the reception room in Burlington-gardens as soon as the doors opened at nine o'clock. As the hour of meeting approached they appeared in the somnolent quadrangle of Burlington House, and found, to their astonishment, that some of the sections were not open. They had, therefore, ample time for a few more cigarettes before the presidential addresses, and the large field tent, which is pitched in the middle of the quadrangle, proved a most acceptable lounging place, or general drawing room, for the Congress. The majority of the sections are housed in Burlington House, with easy intercommunication. Another group is under the roof of the University of London, and not far from Burlington House, the member who wishes to oscillate between the two having only to traverse a sequestered lane to the left of the Royal Academy. The rooms at Burlington House are neither large nor particularly well lighted, and it was fortunate perhaps that there was not any disposition to crowd when the proceedings opened. The theatres are the most roomy meeting-places, and the best of the whole is the theatre of the University of London, in which Section IV., devoted to infancy, childhood, and school life, meets. The section of Demography being located at the Royal School of Mines in Jernyn-street is somewhat in the position of the isolated block of a hospital. Many members no doubt, did their duty impartially by these three groups of meeting places; and if, in the reception room, or in the lounging tent in the quadrangle, at any time during the day, a gentleman entered mopping his forehead, and wildly rolling the eye of bewilderment, it might be taken for granted that he was one of those who had conscientiously gone the round of the ten sections and was, after such an ordeal, in a state of mind which left it an open question to himself whether he was a hæmatozoon, or only a harmless demograph.

PREVENTIBLE DISEASE.

The presidential addresses were not in any case long, and in the case of Sir Nigel Kingscote, president of the section which discusses the relation of the diseases of animals to those of man, it was a speech of only a few sentences. Taking them in their order, we come first to the address of Sir Joseph Fayrer in Section I.—preventive medicine—and it was rather startling to hear from him that about one-fourth of all the mortality in England is caused by preventable disease; that the death-rate of large communities may be reduced much below that at which it has been wont to stand; that the average duration of life may be made to approximate nearer to the allotted four score; and that the conditions of living may be greatly ameliorated. Then we are told that the chief obstacles to improvement have been want of belief and ignorance—astate of things now being remedied by a better knowledge of the laws of health and a more rational comprehension of the causes of disease. The disappearance of cholera, to the extent at least of its cessation as an epidemic since 1866, was fairly attributed by the speaker to local sanitary, rather than to coercive, measures. It cannot be too firmly impressed on our minds, however, that preventable diseases still kill yearly about one hundred and

Twenty-five thousand persons, and that seventy-eight and a quarter millions of days of labour are lost annually, representing a money loss of nearly eight millions sterling. Sir Joseph Fayrer also said that the abuse of alcohol, opium, chloral, and other stimulants and narcotics is well worthy of consideration by scientific men; and that the possible deleterious influence of mistaken notions, as evinced in the over-pressure which is exercised upon the young, the predominance of examinations, their increasing multiplication and severity, and the encouragement of the idea that they are the best test of knowledge is another matter which demands at least consideration.

ARCHITECTURE AND ENGINEERING.

Most of the presidents in their opening remarks paid a compliment to the Prince of Wales and his inaugural address of the previous day, and Sir A. W. Blomfield, president of the Architectural Section, was no exception to the rule. Sir Arthur spent most of the short time at his disposal by quoting various authorities to answer the question, What is the relation of architecture to hygiene? The last but not the least of his authorities was his friend Dr. B. W. Richardson, whose City of Hygieia is not yet built, though, when the time comes for laying it out, it will give employment (with or without commission) to any number of architects. The president, at any rate, was very clear upon this point, namely, that if education and culture continue to advance as they have done in the last fifty years, and habits of intelligent observation are fostered and encouraged, the eyes of the masses will every day become more sensitive and fastidious. The dreary and monotonous streets and badly-designed buildings, which, a few years ago, would have been passed unnoticed, will soon begin to exercise a depressing and disturbing influence on the mind which cannot fail to have some ill-effect on the health, comfort, and general well-being of the community.

In the course of his remarks the president of the last-named section said that such a subject as that of paving seems to be a kind of neutral ground between the province of the architect, and that of the civil engineer, and in the section "Engineering in relation to Hygiene," Sir John Coode, the president, gave a number of most interesting statistics which were practically a description of London from the civil engineer's point of view. Accustomed as we are to figures respecting this modern Babylon in which we dwell, it nevertheless startles one to be reminded that our population (which is in round figures 6,860,000) is considerably greater than the combined populations of Paris, Berlin, Vienna, and Rome. The main, intercepting, and principal branch sewers constructed for the conveyance of London sewage into the Thames at Barking and Crossness, measure about 80 English miles. Since 1856, nearly 6,000,000, sterling have been spent on main drainage, and up to the end of 1890, the eight water companies have expended nearly 15 millions sterling. The water of which 24½ gallons goes per day to each person, is conveyed through pipes of a united length of 4,780 miles. It may be added that the total volume of water delivered in the metropolis for domestic purposes in the one year of 1890, was 64,000 millions of gallons. Again, if the streets and roads within the metropolis were formed into one continuous line we could walk along it, from London via Land's End, across the Atlantic Ocean to the mouth of the Gulf of St. Lawrence; or, if we were going eastward, we could tramp across the entire continent of Europe and beyond the Ural Mountains in Asia. This was the president's way of impressing upon us that these streets and roads extend to a total of 2,500 miles. Several of the presidents and speakers yesterday referred to the decrease of

the rates of mortality as showing the benefits arising from sanitary science, and Sir John Coode traced the decrease from 80 per thousand in the latter half of the seventeenth century to 19.8 per thousand last year. The figures were still lower in 1889.

DEMOGRAPHY.

The Apostles of Demography in their comfortable theatre, the other side of Piccadilly, listened with great interest to the address of Mr. Francis Galton. It referred to those features of demographic inquiry which enter into the great problem of the betterment of the human race, although confessedly at the present time they are hardly advanced beyond the stage of academic interest, the president remarked that thought and action moved swiftly now-a-days, and it is by no means impossible that a generation which has witnessed the exclusion of the Chinese race from the customary privileges of settlers in two continents, and the deportation of a Hebrew population in a third, may live to see other analogous acts performed under sudden Socialistic pressure. With this preface, Mr. Galton spoke of the relative fertility of races, and their tendency to supplant one another under various circumstances. He claimed that the effect produced in particular instances by natural selection acting upon the human race during a few successive generations deserves strict demographic investigation; also that whatever other countries may or may not have lost, ours has certainly gained on more than one occasion by the infusion of selected sub-races, especially by that of the Protestant refugees from religious persecution on the Continent. In illustration of his contention he said à propos of negroes in the United States, there are now some eight millions of negroes in lands where not one of them existed twelve generations ago, and probably not one representative of the races which they displaced remains there. In his conclusion Mr. Galton emphasised the fact that the improvement of the natural gifts of future generations of the human race is largely, though indirectly, under our control; that is to say, we may not be able to originate but we can guide.

Working men should obtain and study very carefully the paper read in the section of Demography by Dr. William Ogilvie, superintendent of statistics at the General Register Office. The subject was "Diseases and Mortality in Relation to Occupations," and in a table of the comparative mortality of men of from 25 to 65 years of age in different occupations he shows how the rate ranged from 100 in clergymen, priests, and ministers to 397 in people working in inns and hotels. The differences of mortality in various industries are enormous, and the doctor entered at length into the reasons why one occupation is more hurtful than another. The causes of high mortality were classified under seven general headings, the first being the method of working which cramps the chest and interferes with the action of the heart and lungs; second, exposure to the action of poisonous substances, such as phosphorus, mercury, lead, infected hair or wool, soot, &c.; third, excessive toil, either mental or physical; fourth, working in confined or foul air; fifth, alcoholic excess; sixth, liability to fatal accidents; and seventh, exposure to inhalation of dust, the effect of which is to increase the mortality from phthisis and diseases of the lungs. Amongst the curious facts stated by Dr. Ogilvie may be enumerated the following: Lucifer dippers are attacked by jaw disease; water gilders, hatters, furriers, and others using quicksilver, by mercurial tremor and ulceration; paperhangers, pigment makers, and artificial flower manu-

facturers, by arsenical poisoning; chimney sweeps, by cancer; wool-sorters, by anthrax. Workers in copper or brass suffer from "brass founder's ague," and there are various diseases common to industrial workers who are brought into contact with lead. It is this latter which causes the high mortality amongst painters and plumbers and glaziers, and that, in combination with the inhalation of metallic dust, raises the death of file makers to so enormous a figure. With regard to alcohol, Dr. Ogle entered into a number of statistics to show that the drink trade exposed its servants to unusually pernicious effects, and that the baneful effects of excessive indulgence were evident amongst innkeepers, publicans, and wine and spirit dealers. The dust inhaled by the workers in wood appears to have very little, if any, baneful effect upon the air passages, though the harder kinds of wood, such as are used by cabinet makers, are understood to give off a much more injurious dust than the softer woods used by carpenters. In the incidental discussion which followed upon the president's address and the reading of another paper by Dr. Bertillon, Dr. Duncan, speaking about plumbers, said that they died in exactly the same proportion as painters and others who deal with lead; and one of the incidents of the forenoon in this section was the speech in French of a delegate who was anxious to submit a resolution in favour of the eight-hours day for working men. It need scarcely be said that he was ruled out of order by the president.

STATE HYGIENE.

In the section of State Hygiene, in the rooms of the Astronomical Society, Lord Basing, the President, delivered a brief extempore address, not as an expert or doctrinaire, but as a

who was not an expert or doctrinaire, but as a
before leaving Plymouth Mr. BALFOUR said
remember the session of 1892.
Healy they would cause Mr. BALFOUR to
the spirit of Mr. T. W. RUSSELL or Mr. J. M.
nor very honest. If the Irish Tories had had
dist the English Liberals he is neither very wise
Parliament. But in betraying the Irish landlords to
attribute to him the virtues of Mr. BROWNING'S
Mr. BALFOUR the fate any more than we
"ward, what else?" We do not predict for
younder asks they would answer, "And after
he has been. If he asked for the moon from
spoken they exclaim how wonderfully right
that he will be right, and after he has
devotion. Before he speaks they prophesy
an object of unreasoning and awestruck
file of modern Conservatives Mr. BALFOUR is
best grace they can command. To the rank and
off their borrowed raiment and submit with the
real gentleman the gentleman's gentlemen case
fine fellows indeed. But on the return of the
of their master, and pass themselves off as very
They give themselves great airs in the absence
of him. They are like Montier's lacquiers
whisper. They are in truth very much afraid
and hardly dare to raise their voices above a
Conservative critics demonstrate very gently
truthfulness of this desertion. Mr. BALFOUR'S
"stroke out" are rather appalled at the crude
the rational purpose of "keeping Mr. Glad-
Anarchists and Nihilists and Dynamiters for
ally themselves with Red Republicans and
an election. Even some of those who would
exigencies of a party, and to the necessities of
they see themselves calmly sacrificed to the
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from a race of Hottentots in whose exclusive

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the rates of mortality as showing the benefits arising from sanitary science, and Sir John Coode traced the decrease from 80 per thousand in the latter half of the seventeenth century to 19.8 per thousand last year. The figures were still lower in 1889.

DEMOGRAPHY.

The Apostles of Demography in their comfortable theatre, the other side of Piccadilly, listened with great interest to the address of Mr. Francis Galton. It referred to those features of demographic inquiry which enter into the great problem of the betterment of the human race, although confessedly at the present time they are hardly advanced beyond the stage of academic interest, the president remarked that thought and action moved swiftly now-a-days, and it is by no means impossible that a generation which has witnessed the exclusion of the Chinese race from the customary privileges of settlers in two continents, and the deportation of a Hebrew population in a third, may live to see other analogous acts performed under sudden Socialistic pressure. With this preface, Mr. Galton spoke of the relative fertility of races, and their tendency to supplant one another under various circumstances. He claimed that the effect produced in particular instances by natural selection acting upon the human race during a few successive generations deserves strict demographic investigation; also that whatever other countries may or may not have lost, ours has certainly gained on more than one occasion by the infusion of selected substances, especially by that of the Protestant refugees from religious persecution on the Continent. In illustration of his contention he said a propos of negroes in the United States, there are now some eight millions of negroes in lands where not one of them existed twelve generations ago, and probably not one representative of the races which they displaced remains there. In his conclusion Mr. Galton emphasised the fact that the improvement of the natural gifts of future generations of the human race is largely, though indirectly, under our control; that is to say, we may not be able to originate but we can guide.

Working men should obtain and study very carefully the paper read in the section of Demography by Dr. William Ogilvie, superintendent of statistics at the General Register Office. The subject was "Diseases and Mortality in Relation to Occupations," and in a table of the comparative mortality of men of from 25 to 65 years of age in different occupations he shows how the rate ranges from 100 in clergymen, priests, and ministers to 397 in people working in inns and hotels. The differences of mortality in various industries are enormous, and the doctor entered at length into the reasons why one occupation is more hurtful than another. The causes of high mortality were classified under seven general headings, the first being the method of working which cramps the chest and interferes with the action of the heart and lungs; second, exposure to the action of poisonous substances, such as phosphorus, mercury, lead, infected hair, either mental or physical; fourth, working in confined or foul air; fifth, alcoholic excess; sixth, liability to fatal accidents; and seventh, exposure to inhalation of dust, the effect of which is to increase the mortality from phthisis and diseases of the lungs. Amongst the curious facts stated by Dr. Ogilvie may be enumerated the following: Lucifer dippers are attacked by jaw disease; water gilders, haters, furriers, and others using quicksilver, by mercurial tremor and ulceration; paperhangers, pigment makers, and artificial flower manu-

facturers, by arsenical poisoning; chimney sweeps, by cancer; wool sorters, by anthrax. Workers in copper or brass suffer from "brass founder's ague," and there are various diseases common to industrial workers who are brought into contact with lead. It is this latter which causes the high mortality amongst painters and plumbers and glaziers, and that, in combination with the inhalation of metallic dust, raises the death of file makers to so enormous a figure. With regard to alcohol, Dr. Ogilvie entered into a number of statistics to show that the drink trade exposed its servants to unusually pernicious effects, and that the baneful effects of excessive indulgence were evident amongst innkeepers, publicans, and wine and spirit dealers. The dust inhaled by the workers in wood appears to have very little, if any, baneful effect upon the air passages, though the harder kinds of wood, such as are used by cabinet makers, are understood to give off a much more injurious dust than the softer woods used by carpenters. In the incidental discussion which followed upon the president's address and the reading of another paper by Dr. Bertillon, Dr. Duncan, speaking about plumbers, said that they died in exactly the same proportion as painters and others who deal with lead; and one of the incidents of the forenoon in this section was the speech in French of a delegate who was anxious to submit a resolution in favour of the eight-hours day for working men. It need scarcely be said that he was ruled out of order by the president.

STATE HYGIENE.

In the section of State Hygiene, in the rooms of the Astronomical Society, Lord Basing, the President, delivered a brief extempore address, not as an expert or doctrinaire, but as one who for many years was associated with public health in this country. He pointed out that at no time had we had responsible statesmen who laid down any code as to the public health. That matter had grown up after a somewhat hazy fashion, but had ripened into something definite and satisfactory. Our system, in short, is founded upon the best of all bases—viz., experience. Lord Basing recalled his own efforts in Parliament to pass a Public Health Act in 1875 codifying the fragmentary legislation which preceded it, and he claimed that it was the most complete code of sanitary law which existed in Europe, and had had the effect of reducing the death rate of the kingdom in the short period of 20 years by about one-seventh. In the race of sanitary progress, he therefore urged that England had not been behind hand, and he is of opinion that the present system of administering sanitary affairs by means of existing local bodies has been very successful. At the same time, he thinks the necessity for State control is absolute and instanced the Government of 1838 as showing the difficulty of obtaining decentralisation. In the rooms of the Linnean Society adjoining, Lord Wantage was, meanwhile, delivering his address as president of the Section of Naval and Military Hygiene. He spoke as one who had taken part in Committee upon army medical questions and Red-cross work, and laid it down as a starting point that the special outcome of our age is the developing and perfecting the means which conduce to the maintenance of such standard of bodily health as shall enable our constantly increasing population to obtain the greatest amount of working power from the physical and intellectual qualities with which nature has endowed them. To the Military Section, he said, these remarks applied with special force, for in the army we had a large body of men removed from the ordinary conditions of life, and their physical and moral well-being confided to the care of the State.

CHEMISTRY AND PHYSICS.

It was obviously the duty of each president to represent the extreme importance of his particular section, but in Section V.—chemistry and physics in relation to hygiene—Sir Henry Rowce went a little further and said it was clear that this section was most important of all, since it was by obeying chemical and physical laws that health was maintained, while by neglecting them we courted disease and death. Whilst, however, he claimed that chemists and physicists laid the foundations of hygienic science, he gladly admitted that portions of the building had been raised by other hands, and therefore heartily welcomed the successful efforts which the biologist, physician, engineer, and statesman had made in building up a condition of things by which the amount of preventable disease is reduced to its minimum, and that of health increased to the maximum possible under the necessary circumstances of our lives. The question of air pollution Sir Henry thinks is more difficult than that of pure water, because while we can bring the latter into our houses by pipes and take away polluted water by sewers, the fresh supply of air cannot be regulated so easily, because we cannot see it. He says that by filtration through cotton wool air can be obtained practically free from microbic life, and from dust particles and fogs; but such air filtration can only be adopted in very few cases, and is altogether useless for general purposes. On the question of fogs in towns he suggested that the ultimate panacea would probably consist in using gaseous fuel and the electric light. In welcoming the foreign visitors he mentioned that their brethren in England have determined no longer to lag behind their Continental friends, but are about to establish an International Institute of Preventive Medicine.

THE CONGRESS OF HYGIENE.

The Congress resumed its sittings yesterday. The members met in various sections, in the rooms of the learned Societies in Burlington House, and proceeded to the reading of the papers set down in the programme, most of which were followed by some debate. The following were the principal Sections:—

PREVENTIVE MEDICINE.

This Section met in the rooms of the Society of Antiquaries, Sir JOSEPH FAYLER in the chair. The morning was devoted to the consideration of the subject of diphtheria, Dr. EDWARD SEATON commencing with a paper entitled "Diphtheria, with special reference to its distribution, and to the need for comprehensive and systematic inquiry into the causes of its prevalence in certain countries or parts of countries, with a view to its prevention." Dr. SEATON showed that the prevalence of this disease was not influenced by climatic conditions, but was equally severe in Europe, where France has been the principal centre, and America, the tropics alone suffering less than cold and temperate climes. He urged the necessity for a Government inquiry into its causes, and the conditions under which it spread.

Dr. C. HEWITT, of Minnesota, and Dr. S. W. ARNOTT, of Boston, gave accounts of the prevalence of the disease in Minnesota and Massachusetts. The conclusions drawn were that diphtheria was eminently contagious, not only directly, but through indirect media, although the certainty of infection was not so great as in the case of scarlet fever and small-pox. Overcrowding, faulty ventilation, and filthy condition of tenements favoured its spread. Its propagation was favoured by soil-moisture, damp cellars, and general dampness of houses; but the poison might remain infective in houses for a long period.

At the close of the discussion the following resolution, moved by Dr. SEATON and seconded by Dr. TRIPP, London, was adopted:—"That this Section urges the European Governments to make a comprehensive and systematic inquiry into the causes of diphtheria."

In the afternoon Dr. RANSOME, of Manchester, spoke on "The need of special measures for the prevention of consumption," asserting that the disease was both curable and preventible. He said the duty of sanitary authorities was to treat phthisis as a disease analogous to leprosy, cholera, and enteric fever, in that it was a disease scarcely, if at all, directly contagious, but which might spread by means of material thrown off from the bodies of the patients. It should be combated by the time-honoured methods of (1) notification of cases; (2) disinfection; (3) hospital accommodation; and (4) general sanitary measures, such as ventilation, drainage, and reconstruction of unhealthy areas.

Professor FINKELNBURG, of Bonn, spoke on the influence of soil on the spread of tuberculous diseases; and Dr. SCHUBER described the directions in which legislation could assist in diminishing the prevalence of consumption and other tuberculous diseases.

DISEASES OF ANIMALS AND MAN.

This Section met in a room of the Geological Society, Burlington House, under the presidency of Sir NIGEL KINGSFOTE, Chairman of the Board of Governors of the Royal Veterinary College.

Dr. E. BALLARD read a paper on the infection of food. In the course of the paper reference was made to fourteen instances of what had been commonly termed "food poisoning," by articles of flesh food, which had either come directly under investigation by the medical inspectors of the Local Government Board, during the last ten or twelve years, or had been communicated to the Medical Department, after investigation by medical officers of health or others. The precautionary measures against such food poisonings consisted mainly in thorough cooking, scrupulous cleanliness, and ventilation of places where cooked meat was stored, and the adoption of every possible precaution against the rise into those places of ground air, or the introduction of moribund or unwholesome emanations.

Dr. VICTOR C. VAGNER, of Michigan, read a paper on "The infection of meat and milk." He said the method of procedure should be both chemical and bacteriological. A careful and thorough search for inorganic poisons should be made. The germs found should be grown under conditions as nearly identical with those under which the suspected food had existed as could be obtained. Tests should be made, not only for the basic products of putrefaction, but for the bacterial proteins as well; and physiological tests upon the lower animals should never be neglected.

Dr. E. KRUM, who contributed a paper on "Infectious udder diseases of the cow in relation to epidemic diseases in the human subject," said in several epidemics of scarlet fever brought about by milk, Mr. Power had established that

the infectiveness of the milk was not due to contagion from a human source, but that probably a pathological condition of milch cows, undiscovered before 1885, played a prominent part in giving in their milk the power to produce scarlet fever in the human subject. Diphtheria was also an epidemic disease referable to cow disease. At a particular stage of an eruptive disease experimentally induced the milk of cows was shown to contain the diphtheria bacilli.

Dr. OSTERTAG, of Berlin, said Dr. Klein's investigations had received great attention in Germany; but the general belief was that he was mistaken.

After the discussion terminated, Dr. OSTERTAG read a paper urging the State regulation of the milk supply, so as to ensure that only pure milk should enter the market, on the ground that the consumer was not in a position to guard himself against the manifold dangers which attended the consumption of milk. Further, he considered that all dairy farms should be licensed; that all milch animals should be regularly examined by a veterinary surgeon; that dairy farms should be bound to give notice of the illness of any milch cow; and that other precautions should be taken to ensure cleanliness in the manufacture and transmission of the milk to market.

Mr. VACHER, Medical Officer of Health for Birkenhead, read a paper upon the inspection of meat with regard to the prevention of disease. He urged that public abattoirs should supersede all private slaughter-houses; that all butchers and their premises should be licensed and registered; that competent inspectors of meat should be appointed; that there should be a general systematic inspection of animals and meat intended for food; and that competent assessors should sit with magistrates to assist them when necessary in the hearing of cases relating to diseased meat.

CHILDHOOD AND SCHOOL LIFE.

This Section met in the Theatre of the University.

The President, Mr. J. R. DIGGLE, Chairman of the London School Board, in the course of his address, said no successful work could be performed with children unless there was first of all a thorough appreciation of the value of the material with which they worked. The parents were not few who would throw upon the State the responsibility which nature had imposed upon them of caring for their own offspring. Perhaps the most difficult of all social problems arose here. The immediate solution of the problem depended upon the point of view from which it was regarded. Without in the least hindering every effort to reform bad parents, the most hopeful course in the interests of the State appeared to him to be the training up of children to be strong and good. What he would once more enter a protest against was the plan of leaving the child to act as a sort of buffer between the engine of the State and the solid inert mass of parental neglect. For, in truth, the necessity for State interference at all in the upbringing of children arose from some form or other of parental neglect, coupled with the advantages which the complete organisation of the State offered as a means of co-operating with good parents in the performance of a natural duty. The moot point was in what aspect the interference of the State should be regarded. Whatever might be the outcome of the future, it was clear that some sort of State interference was a necessity for the present. Our main business was to take due precautions that the intervention of the State where it occurred should proceed upon right lines, and in directions where experience indicated that success would attend upon it. Thus the healthiness of the school-room; the suitability of its arrangements and of its surroundings for the purposes of a school; its appointments for the purposes of teaching, were all matters of vital importance to the whole of the community who made use of it. In what manner these things could best be secured the papers and discussions of this Congress might help to point out with clearness and fulness. Again, the entire range of the teaching which was intended for the development of the whole child concerned the community still more than the general suitability of schoolrooms as places where teaching was given. Not a part only, but the whole of a child's nature demanded separate care. Unless the community made this, too, a matter of the deepest concern, it was destroying a part of its natural wealth.

Dr. BURGERSTEIN, of Vienna, gave the results of an experiment concerning over-pressure of the brain, which seemed to demonstrate that continuous work for school children of eleven, twelve, and 15 years of age, even though the tasks were not difficult, should not last longer than three-quarters of an hour.

Resolutions were passed that it was desirable that the question of mental over-pressure should be investigated by exact experimental methods, and that until the question of over-pressure had been carefully investigated in a proper scientific spirit, school lessons generally should not last longer than three-quarters of an hour.

Sir PHILIP MAGNUS contributed a paper on "Manual training in its relation to health," in which he stated

that experience had shown that manual training, whilst withdrawing time from literary pursuits, did not retard the child's progress in those pursuits. The alternation of sedentary with active lessons quickened the child's vitality and so tended to stimulate the interest in ordinary studies and to increase the general cheerfulness.

CHEMISTRY AND PHYSICS.

Sir H. ROSCOE, M.P., again presided in this Section, which met in the rooms of the Chemical Society. Dr. J. C. THRESH opened a discussion on the Sewage question by a paper on "Chemical and physical processes employed in the treatment of sewage." The writer described the various processes which have been devised for the removal of these impurities—viz., subsidence, filtration, percolation, precipitation by chemical aid, precipitation by electrolytic treatment, destruction by oxidising agents, sterilisation, nitrification, and broad irrigation. A combination of two or more of the above processes must be resorted to, according to circumstances, which depended chiefly upon the character of the sewage, the position of the town, and the mode in which the effluent was finally to be disposed of.

Dr. ALFRED CARPENTER dwelt upon "The duty of a locality to utilise the nitrogenous matter of its sewage for the benefit of the nation." He protested against any measures being taken to destroy the agricultural value of sewage as being opposed to national interests. Dr. CARPENTER also spoke on the power of soil and vegetation combined to destroy disease germs, and so to prevent the possibility of the spread of enthetic disease in consequence of sewage farming.

ARCHITECTURE IN RELATION TO HYGIENE.

Sir A. W. BLOMFIELD presided over this Section.

Mr. LENOX BROWNE read a paper on "The sanitation of theatres." He said he had been able, in conjunction with his friend Mr. Ernest Turner, to inspect twenty of our London theatres, besides a number in the provinces. Of the twenty theatres, the arrangements, from a sanitary point of view, were the reverse of satisfactory; indeed, there was hardly one in which some fault might not be detected. But the defects were for the most part due to structural causes, for which, when existing as part of an original plan, there was no excuse, although the blame should rest rather with the architect than with the proprietor. The County Council, in its elaborate requirements to afford protection from the risk of fire, seemed to have almost ignored the far more important subject of the health, not only of the actors and actresses, but also of the general public.

Moreover, it was behind the scenes that insanitary conditions were to be found in their most objectionable form; and although from time to time more or less fitful interest had been excited by the rumour of a death or of a severe illness taken by some member of a London or a country company, any systematic sanitary investigation of that portion of the building in which the actor was specially engaged had not only been completely neglected, but its necessity had been practically overlooked. Mr. Browne ventured to prophesy a greatly improved sanitary condition of our theatres in the near future.

Mr. ERNEST TURNER read a supplementary paper, with diagrams, illustrative of good and bad arrangements of theatres.

A discussion followed, in which Mr. Emden, the architect, and Mr. Max Clarke, proprietor of the Exeter Theatre, took part.

BACTERIOLOGY.

In this section, over which Sir J. LISTER presided, the subject under discussion was Immunity—the mechanism by which the body is naturally protected against infectious disease, or acquires that protection in virtue of a previous attack of the same disease. Dr. ROUX, the Director of the Pasteur Institute in Paris, read a paper in which he discussed in detail the grounds for believing that the protection conferred on the body by a previous attack of an infectious disease was to be referred primarily to the action of the living cells of the body, especially of the blood, and to the organised resistance which they at all times offered to the attacks of the invading organisms. The struggle against infectious disease resolved itself into a struggle for life between the leucocytes of the blood and the bacteria. This view, so skillfully elaborated by Dr. Metchnikoff, of the Pasteur Institute, was the only one which, in his view, best met all the difficulties of the problem.

Dr. BOCHNER, of Munich, contended that the protection which, in some cases, naturally existed against certain forms of infectious disease was due to some change in the fluid of the blood, independent of the action of its living cells. This view might, in fact, be aptly represented in the words put into the mouth of Mephistopheles by Goethe, that "The blood was spice of most peculiar virtue."

Mr. HANKIN, of Cambridge, endeavoured to reconcile

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the apparently opposing views by showing how the virtue thus ascribed to the blood was due to the presence of certain active substances which he had described, and which were formed by the living cells of the body.

The subsequent discussion was taken part in by Dr. METSCHNIKOFF, who ably defended his views, by Professor HURETZ, of Prague; Professor EMMERICH, of Munich; Professor VON FODOR, of Budapest; Professor ARLOING, of Paris; Drs. ADAMI, WARHET, and others.

The President, in closing the discussion, said that it alone would serve to mark the International Congress of 1891 as an epoch in the history of the subject.

ENGINEERING IN RELATION TO HYGIENE.

Sir JOHN COODE presided over Section VII.

Mr. A. R. BINNIE, chief engineer of the County Council, read a paper on "Water supply." He said there were two facts of which they might be confident, one being that water subject to pollution was a very potent factor in the spread of disease; and, secondly, that there was possibly no better mode of introducing into the human system any substance which it could absorb than by drinking it in the form of a solution. This being the case, it almost followed as a natural consequence that the utmost care should be taken to guard our supplies of drinking water from contamination. Wells were frequent sources of death and disease, due to the contamination from house drains. Chemical science in many cases was of little assistance, as it was powerless to detect the germs of disease. Neither land filtration nor the precipitation and clarification of sewage effluent by chemical agency could be altogether relied on.

M. BECHMANN, in a paper on the distribution of two waters of different qualities by distinct systems of pipes, examined the question whether the system of double distribution, such as has obtained in Paris since 1854, for example, should be generally adopted; and whether it was in any case desirable, or, from a hygienic standpoint, permissible. He concluded that (1) the ideal water supply of a town consists in the uniform distribution of potable water suitable for all purposes; and (2) that, should particular exigencies necessitate the expedient of a double service supplying two waters of different qualities, only one of these being potable, the double service must not be introduced into private houses, where potable water only should be at the command of the consumer.

STATE HYGIENE.

The members of this Section met in the rooms of the Astronomical Society, Burlington House, and two gentlemen divided the honour of chairmanship during the reading of papers: Dr. E. RITTER VON HOFMANN, of Vienna, and Dr. W. P. REUSCH, of the Hague.

Dr. DANFORD THOMAS, Coroner for London and Middlesex, furnished a paper on "The extent to which the State should exercise control in the interest of public health over the sale of poisons." He said some restraint on the sales of poisons and of medicines containing poisons was necessary, and further regulations, he suggested, might with advantage be adopted as a means of lessening the mortality from poisoning, and reducing the dangers to health and life which now existed from the indiscriminate sale of proprietary and other medicines containing concealed poisons. The word "poison" should be clearly expressed on the label of all proprietary and secret medicines which contained poisonous drugs. He finally suggested that all proprietary medicines should be made "Patent," and he would confine their sale to chemists and druggists.

Mr. JOHN HAMER, Hon. Secretary of the Mansion House Council on the Dwellings of the Poor, read a paper upon "The homes of the poor," in which he urged local government in the carrying out of official regulations, and expressed the opinion that dwellings on the block system were not an unmitigated blessing. The cottage community was, he thought, the best; but the cost of land in towns made that system impracticable, therefore railway companies should run cheap trains within a fixed zone round every populous centre. Medical officers of health should be the servants of the State, not subject to property owners, or the local authority.

Mr. A. E. FLETCHER, Chief Inspector under the Alkali Works Regulation Act, read a paper on "The present state of British law relating to the discharge of noxious gases from manufacturing processes." The law made no attempt to stop such operations, but adopted means to regulate them. Owing to the constant change and development of chemical processes, it was much to be desired that a more general Noxious Gases Regulation Act should be adopted, whereby all works, where certain noxious gases were generated, should be brought under control.

DEMOGRAPHY.

This division met at the School of Mines, Jermyn-street, under the presidency of Mr. F. GALTON.

Mr. E. G. RAVENSTEIN read a paper on "Temporary migration of labour," confining his remarks to the migration taking place in countries having sedentary populations. In central Europe, out of a population of 127,000,000, no fewer than 29 per cent. were enumerated as outside the parishes in which they were born. The annual migration of Irish agriculturists at harvest time was a matter of interest and importance, both to the migrants and the English and Scotch farmers whom they assisted. But besides the Irish exodus there was a very large exodus from London into the surrounding fruit and hop-growing counties, and he thought it would be worth the while of the farmers to make these migrants more comfortable than was now the case.

Surgeon General IRELAND said that from inquiries he had conducted for the English Government into the question of migration, especially in the case of the Irish, he had arrived at the conclusion that, however advantageous this migration might be in the case of the English and Scotch farmers, it was not desirable to crystallise such a state of things as had long prevailed in the West of Ireland. He was glad to see that the Government had lately done something which would to a certain extent remedy the present essentially un-economical state of things in that country.

Mr. MATTHEW SMITH (from America) remarked on the difficulties which had arisen in the United States consequent on the large amount of emigration there going on, and the undesirable character of a large proportion of the emigrants. Difficulty had also arisen in regard to the migration from Canada to the States, the emigrants being mostly French Canadians, who worked for lower wages than the natives, were very economical in their living, and having saved money after a few years' residence, during which they did not take on themselves the ordinary duties of citizenship, returned to their own country.

Dr. R. W. FELKIN read a paper on the suitability of tropical climates for the permanent residence of European races. He held that each of the tropical zones had special peculiarities as to disease, the higher the altitude the nearer the approximation to the climate of Europe. For the permanent residence of Europeans in the tropics a comparatively high altitude was requisite.

Surgeon General Sir W. MOORS said tropical elevations were not free from the diseases of the lowlands. In point of fact, the temperate climate of elevation would not supply the place of the temperate climate of latitude. A European might live long on a tropical elevation provided he did not labour in the sun; but experience and reason were against his founding a European family there.

Dr. EWART expressed a decided opinion that there was no prospect of the hill climates of the tropics being turned to any useful account as European colonising stations. Any attempt at such colonisation would only lead to disappointment.

Sir RAWSON RAWSON expressed a similar view.

THE CONGRESS OF HYGIENE.

The Sections of the Congress of Hygiene and Demography resumed their sittings yesterday, in the Rooms of the Learned Societies in Burlington House, and in neighbouring buildings.

STATE HYGIENE.

In this section—Dr. BARRY, Medical Inspector of the Local Government Board, presiding—Sir HENRY THOMPSON read a paper upon "Recent proposals relating to burial and cremation; and on the importance of disinfecting all bodies dying from infectious disease, with remarks on the present system of certifying the cause of death." The author assumed that the bodies of those recently dead by any, or almost any, of the diseases generally known as zymotic, were charged with elements which had the property of communicating the same diseases to the bodies of living persons, if brought into contact with them; it might be by inoculation or by food admixture. The deaths from infectious diseases amounted to more than an eighth of the total mortality, therefore the question of rendering the dead innocuous was one of supreme importance. Nearly 69,000 cases of death thus caused could not fail to be the means of largely extending injurious influences to others. The only really efficient method of making the dead innocuous was by the process of cremation. It was necessary, finally, to point out that about 3 per cent. of all deaths were uncertified, hence the importance of appointing medical men to determine the cause of death in every case.

Dr. F. SKYMOUR HADEN contributed a paper upon "Burial in earth," and argued that cremation was unnecessary, and, in a medico-legal sense, dangerous. The question of burials in earth should be dealt with by a Bill, which should provide for burial within the earth as the only legal mode of disposing of a dead body; for the limitation of time beyond which it should be illegal to keep a dead body unburied; and for making illegal the use of strong coffins, brick graves, and vaults, and of all contrivances having for their effect to retard re-solution.

At the conclusion of the discussion, on the motion of Sir HENRY THOMPSON the following resolution was passed:—"That the cremation of the dead is rational and a hygienic procedure which is specially called for where death occurs from contagious diseases."

A resolution was also passed calling upon all Governments to remove all legislative obstacles from the cremation of bodies, and recommending all Governments to adopt cremation on battle-fields.

PREVENTIVE MEDICINE.

In this section—Sir JOSEPH FAYNER in the chair—Sir DYCE DUCKWORTH read a paper on "The relation of alcoholism to public health, and the methods to be adopted for its prevention." He said he was far from considering the employment of alcohol as an unmixed evil in this world. He viewed its uses of actual benefit to humanity, but they were there to consider its abuse and to try to remedy that. With an increasing population, means of locomotion and transport, and wealth, they must gratefully acknowledge that alcoholism had not increased, but showed a certain diminution during the past half-century. If all that had been said as to the injurious effects of the use of alcohol were true, some of the finest of the human races (such as the Hebrews) would be extinct. He had known life kept up by alcohol to the exclusion of everything else, save a little water, and felt justified in recognising it as a food; and he knew of no evidence to prove that the moderate consumption of alcoholic liquor taken with other food was injurious to the health of the human body or the performance of its functions. Only a small amount of alcohol should be taken in one day, and then with a meal, and, as a rule, when the day's work was done. None should be taken between meals, and even of the smallest amount, was harmful taken while the day's work was being done. Such an amount as was not harmful was not only harmless, but positively beneficial to the majority of individuals of civilised countries. He had long been convinced that total abstinence from alcohol for its own sake, and as an example to others, was no remedy for careless or vicious indulgence, for the abusers took little or no heed of such examples. For those who had no control, there could be no doubt of the propriety of total abstinence, but this brought them face to face with vice and wrongdoing that called for special consideration. Drunkenness was certainly the parent of teetotalism. The knowledge of alcohol should be kept from children as much as possible, and it should be a penal offence to supply any alcoholic liquors to anyone under the age of puberty (applause). It was not always advisable to change alcoholic habits in middle life, as frequently more harm than good came

of the change. The habit came to us from generations of alcoholising ancestors, and was woven into us, and was not in itself a bad one in our present civilisation. The main points to be recommended were that little alcohol should be taken; that whatever it was, it should be the best of its kind, and that it should always be taken with meals. Inherited nervous disease was frequently the cause of the alcoholic habit, and in such a case they had to deal with a form of insanity in which the sufferer was no more to blame than an epileptic or maniac, but should come under the treatment of a physician. The public and magistrates were incapable of keeping this distinction in view. But he would gladly support some more rigorous form of punishment for the vice of occasional intemperance than was at present meted out. As the offenders could not be made to suffer in conscience, they should be stigmatised in an unmistakable manner. He believed that the infliction of corporal punishment would be useful in cases of repeated inebriety, and held that the electoral franchise should be withdrawn from drunkards after the second conviction (applause). He was in favour of local option as to the number of licensed houses in a locality, and a much more rigid supervision should prevail over the conduct of the frequenters of such premises, which should be compelled to close earlier in the evening. Legislative measures of abolition were unwarrantable and ineffectual, and he looked to the growth of a healthy public opinion, and the spread of Christian education, for the remedy of the evil (applause).

Mr. HAROLD WESTERGAARD, Professor of Political Economy in the University of Copenhagen, read an exhaustive paper on the same subject. He quoted statistics of deaths resulting from intemperance in the various European countries and America, and described the means employed to check the sale of alcohol.

The President said he was opposed to prohibition, but advocated temperance in its true sense. It was absurd to say that because a person might poison himself with alcohol it should be altogether prohibited. They might as well apply the same rule to opium.

Dr. ISAMBAR ODEN said that, putting aside subjects of organic disease in which alcohol was used as medicine, he had never found any individual man or woman appreciably the worse for being a total abstainer.

Sir J. K. BARRINGTON, speaking from experience as a member of the County Council and the Metropolitan Asylums Board, said that, from a ratepayer's point of view, the life of an habitual drunkard was worth too long, while from the publican's it was much too short. Cases that were treated at the expense of the ratepayers came back again and again. It might be asked, why not treat them as lunatics and keep them in the asylums? But in the present state of the law that could not be done. He was strongly in favour of seduction; but this would be a difficult matter, in consequence of its enormous initial cost.

INFANCY, CHILDHOOD, AND SCHOOL LIFE.

This section was presided over by Dr. RUSSELL.

Mr. W. MERRILL, vice chairman of the Glasgow School Board, read a paper on "The neglected children of our towns and cities." He said the remedies for the state of things now existing might be described as legislative, social, or individual. Of legislative measures which were desirable, one might be framed to deal with one room dwellings. He wished Parliament to interfere with the present indecent and scandalous practice of a parent lodging his adult children, boys and girls, with himself and his wife in a single apartment. He suggested that a law should be framed declaring that it should be the duty of every parent to provide suitable and decent lodging for his children, and in no case should girls over twelve and boys over 15, being of the same family, lodge with their parents in a single apartment. If, in such circumstances, the parent was unable from poverty to provide sufficient lodging, application might be made to some properly-constituted authority, and it should be the duty of that authority to pay the additional sum required when satisfied of the inability of the parent. Having briefly referred to the social remedial agencies which existed on behalf of neglected children, the author said that what was chiefly wanted was hearty recognition of such agencies, and it was here that individual effort came in.

Professor KIRKOR, of Liège, read a paper in French on "The effects of education in Belgium on criminality and mental diseases." He said that in Belgium elementary instruction had resulted in a diminution of crime.

Colonel PENNINGTON, Chairman of the Industrial School Committee of the London School Board, read a paper describing the development of the reformatory and industrial school system in England. These schools, he said, had been working most beneficially for the last few years. They had let in an immense light upon the whole criminal question, and had had a large measure of encouraging success. They would have a still greater share of success if the community at large would take a greater interest in their development and results, and help the managers to place out the children in situations when they were ready for service.

Dr. VICTOR DISNEY, of Antwerp, discussed the physical and moral training of orphans. He said the abolition of orphan homes was desirable. Either boarding out, which combined the material and moral advantages of home life, should be recommended, or agricultural colonies. Scrofulous and rickety children should be sent to the seaside. Such orphan homes as were retained should be established in the country, provided with the fittings necessary to develop the body, increase vital resistance, hinder the breaking out of hereditary diseases, combat the development and propagation of tuberculosis, syphilitic disease, and granular ophthalmia. Gymnastics and swimming were indispensable. The staff, composed of healthy, vigorous, and moral persons, able to exercise over the children a preponderant physical influence, should be capable of studying their characters and dispositions, so as to be able to contend with their hereditary tendencies to vice, and to perceive the aptitudes of each one. The diet, housing, and dress must conform to hygienic rules, but must exclude all luxury, and all refinement incompatible with the future position of the orphans, such as would warp their judgment. The instruction given should be sufficiently solid to develop their intelligence, but should not be carried far enough to raise them above their after-station. In exceptional cases, children enjoying good health, and presenting special aptitudes, might be prepared for higher studies. Music and drawing should form part of the regular course. The choice of trades must depend on the tastes and physical qualities of the children. Their apprenticeship must be conducted so as to fit them to exercise their trades, even under the worst conditions which they might meet with later in life.

The Rev. J. LEWELLYN DAVIES read a paper on "Free dinners for school children." He said that a considerable number of children were exposed to the chronic disadvantages of being insufficiently fed and clothed was a fact which they were compelled to recognise. As a remedy for this some people did not shrink from advocating State interference, and the taking by force, from the parents, every child to which they were not doing the minimum of justice. A long way short of this was the proposal to give a free dinner at the public expense to every child at school who would accept it. He could not admit that the dinners which were given to selected children by philanthropic people were a judicious form of relief, because the distribution of tickets to hungry children was made in the schools, and those who evidently wanted the food most were inevitably made to understand that they were refused because their parents were unworthy. Any action which took the children off the parents' hands, and made them the immediate objects of relief, was to be deprecated. Where, however, parents were anxious to do their duty towards their children, but were prevented by extreme poverty from getting for them the food they required, he pleaded that it was a better plan to give relief trustfully and privately to a parent, better for the strengthening of the family system amongst us, more considerate towards the parent, more effectual in the long run for the children, than to distribute dinner tickets to selected children in schools.

Mrs. BESANT read a paper, entitled "Can hungry and half-clothed children be efficiently educated." She contended that above all things we were illogical in our treatment of great questions. We decided them on grounds of expediency, and lived politically and socially from hand to mouth. Education to the children of the poor was no longer regarded as a grace, but a right. As a dry matter of fact they could not educate a starving child, because its physical condition made intelligent reception of the subjects dealt with absolutely impossible. Mr. Llewellyn Davies raised objections to the providing food and clothing at schools, but her answer was this: The position taken by Mr. Llewellyn Davies with regard to the parent might be defended, however brutal it might be, if the State had not interfered at all; but it was a position which could not be maintained now that the State had interfered, and imposed burdens upon the child. The State must help the child to support those burdens which it had itself imposed in order to make a better citizen. They had no right, in the case of drunken and dissolute homes, to punish the child because the parent was evil. It was not by way of the children they were to teach morality to the parents.

Frau MARIANNE NJO, of Kornneburg, Austria, read a paper in which she described the advantages to be derived from convalescent homes being provided for children.

CHEMISTRY AND PHYSICS.

The discussion in this Section, under the presidency of Sir H. ROSCOE, M.P., dealt with the chemical and physical examination of air and water. Professor LEHMANN, of Würzburg, read a paper on "The hygienic importance of copper," with special reference to the risks run in the employment of copper cooking utensils. "The action of water on lead," and "The effects of the respiration of carbonic acid on man," were the other papers read. The following conclusions were arrived

at in the last mentioned paper by Dr. W. MARCET: 1. That when air containing an excess of carbonic acid was breathed, the gas accumulated rapidly in the blood, and under such a condition the phenomena of nutrition were more or less interfered with; and also that people working in ill-ventilated rooms and buildings should, for the preservation of their health, sleep in as pure an atmosphere as possible, where they would rid their blood of the carbonic acid absorbed in the daytime. 2. That the effects produced by the inhalation of carbonic acid gas depended greatly on the rapidity of the exposure. The sudden inhalation of air containing a large proportion of the gas might produce rapid insensibility and death; while this same air might have been breathed for some time with a certain degree of impunity had the proportion of carbonic acid present been attained gradually. 3. That when life was threatened by the inhalation of carbonic acid, there was no reason to despair of artificial respiration so long as the heart was beating; the gas would diffuse rapidly from the blood into the air with which the lungs were inflated, thus being carried out of the body.

ARCHITECTURE IN RELATION TO HYGIENE.

This Section was presided over by Sir A. W. BLOMFIELD.

Mr. P. GORDON SMITH, architect to the Local Government Board, read a paper on "Common lodging-houses." He said the subject was one of some importance, as affecting directly and indirectly the whole community, and would be better understood from the fact that, according to the evidence given in 1884 before the Royal Commission on the Housing of the Working Classes, from 25,000 to 30,000 persons resorted to them, in London alone, for lodgings every night, and some of the houses were certified to hold as many as 430 lodgers. In 1889 there were 308 common lodging-houses on the Metropolitan register, making up, in the aggregate, accommodation for 53,984 persons. The amount (300ft.) of cubic space per lodger was less in England than was demanded in the corresponding houses of Berlin and Paris, but an increase was not advocated. The separation of the sexes was not usually required elsewhere than in the dormitories; and with regard to accommodation for married couples, it was believed that, where provided, it led to grave abuses.

Mr. J. F. J. SYKES, medical officer of health, St. Pancras, read a paper on "Block dwellings for the industrial classes." He said by-laws were urgently required for controlling the construction of block dwellings, and unsightliness might be overcome by the artistic architect at a moderate cost. The abolition of the inhabited house duty restriction, which compelled staircases to be open to the street, was particularly required. The aim should be to provide in a better class of block buildings self-contained homes, with attractive comforts and surroundings.

Mr. ROWLAND PLUMBE, in a paper on "Cottage homes for the industrial classes in the Metropolis," urged the desirability of scattering the industrial population by inducing them to live in cottages in the suburbs, rather than in flats of model dwellings in central crowded neighbourhoods.

BACTERIOLOGY.

The proceedings in this Section related to tuberculosis in all its branches.

Professor BURDON SANDERSON, of Oxford, in opening the discussion, said it could not be actually proved the community suffered from the consumption of tuberculous meat, but there was a certain danger in the sale of it. If a law were passed to-morrow forbidding its sale it could not be put in force, because of the difficulty of obtaining inspectors with sufficient skill and discernment. It was essential that tuberculosis should be inserted in the schedule of the Contagious Diseases (Animals) Act. He advocated a system of inspection of animals, as it had been found in France that about five animals in every thousand were infected. If these animals were killed compensation would have to be provided.

Professor BANG, of Copenhagen, contributed a paper on "The alleged danger of consuming the apparently healthy meat and milk of tuberculous animals." He maintained that the great majority of investigators were agreed that the essential source of tuberculosis in man was to be found in man himself, and nearly all admitted that man could contract the malady by the ingestion of meat or milk from animals affected by tuberculosis. As to the extent of the danger opinions differed. The Professor described a number of experiments which he had made with tuberculous cows. Of 88 cows whose milk was inoculated into rabbits and guinea pigs, there were nine the milk from which proved to be virulent. On the whole, he thought the milk of a tuberculous cow with udders apparently healthy was not in the great majority of cases dangerous; though it was undoubtedly so sometimes, and was always suspicious. As to meat, the experiments by others showed that the muscular tissue was so unfavourable a nidus for the tubercle bacilli that they

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did not multiply in it. The number of bacilli found in the meat of tuberculous animals must always be very limited; therefore he considered that the seizure of the meat of every tuberculous animal too severe a measure. The eating of under-cooked meat should be discouraged.

Professor MACFADYEN and Dr. G. SIMS WOODHEAD furnished a joint paper "On the transmission of tuberculosis from animals to man by means of flesh and milk derived from tuberculous animals." They were of opinion that the evidence as to the transmission through the flesh of tuberculous animals was very conflicting, apparently because the methods used were different, and the conditions were not uniform. As the result of a large number of observations made on tuberculosis in children, they were of opinion that human beings did contract tuberculosis through the ingestion of tubercular material derived from the lower animals. With regard to milk as a transmitter, they were of opinion that the conditions had not been sufficiently studied to enable them to pronounce an opinion.

ENGINEERING IN RELATION TO HYGIENE.

In this Section, Dr. PERCY F. FRANKLAND read a paper on "The present state of our knowledge concerning the self-purification of rivers." He said the self-purification of rivers had frequently been supposed to justify the use of river water which had received sewage contamination for town supply; but he contended that the evidence of purification was wholly inadequate to justify such a course.

Dr. MILLER BUCKER read a paper on "How best to dispose of the refuse of large towns." He said the question had narrowed itself down to destruction by fire. It had become impossible to deal with the many and various waste products of the household in cities by any other means. Their value as manurial agents was equal to the cost of transport, and year by year the sums paid to the dust contractor for his trouble in disposing of refuse increased. It had occurred to him that the best form of destructor would be a portable steam engine, provided with a suitable fire-box, into which all combustible matter (almost everything, given sufficient heat, was combustible) could be thrown. The heat generated by the burning of the refuse would, he calculated, be almost sufficient to propel the locomotive. Trucks would be attached, into which the cinders might be passed, and the latter could be stored at suitable depots, such as railway stations. The plan of operation would be something like the following:—Each traction engine would start on its rounds at twelve o'clock at night. As it passed along a particular street (notice having been previously given of its route) the ashes and other matters would be taken away in buckets of a suitable kind, and emptied into the furnace, and so, progressing slowly, the engine would finish its rounds about five or six next day. The chief difficulty would be the smell of the gases set free. This need not trouble much, first, as almost all the houses would be shut up as it passed along; and, secondly, effectual means, by steam jet or otherwise, could be easily devised so as to make sure that every inch of gas was burned.

NAVAL AND MILITARY HYGIENE.

This Section assembled under the presidency of Dr. LONGUET, of the French Army.

Dr. J. LANE NOTTER read a paper on "Enteric fever in the European Army in India: its etiology and prevention." This disease, he said, knew no geographical limit, and its universality made it one of peculiar interest to Army medical officers. In spite of sanitary improvements the disease had increased in India, and the mortality was growing greater each year. The causes of the disease were polluted soil and polluted water, aided by the condition of the soil, high temperature, and humidity. The cleansing of the soil, which had been polluted for ages, seemed almost an impossibility; but a pure water supply ought to be within their reach, and this, with the careful removal and disposal of sewage, seemed the only means at present possessed to combat the disease in India.

Dr. A. M. DAVIES, of the Army Medical Staff, contributed a paper on "Enteric fever in campaigns: its prevalence and causation." The great prevalence of this fever amongst armies in the field was, he contended, of pythogenic origin, due to a specific bacterial parasite which developed disease-producing properties by a process of evolution under favouring conditions.

Dr. J. E. SAUBER read a paper upon "Camp fevers: their origin and spread." He urged that the fevers which soon made their appearance in a force engaged in any campaign, and caused more casualties than the enemy, demanded most careful consideration. An exhaustive classification of camp fevers was impossible, but an attempt was made to classify the most important and most deadly of these fevers, and to trace their several modes of origin and spread, with the special object of indicating the sanitary precautions which might be taken for their prevention.

A special meeting of the Congress was held in the afternoon in the theatre of the University of London, when Surgeon General Sir J. W. MOORE read a paper on "Sanitary Progress in India." Among other signs

of the improved condition of public life in India, the lecturer cited the improvement in the food supply of the people owing to the attention given to agriculture and irrigation, the more equitable distribution of the salt supply, the extension of forestry, and the advance in education, an educated person being more likely to appreciate sanitation than an uneducated one. Great endeavours had been made to obtain a trustworthy registration of births and deaths and an accurate census, but, up to the present, they had been ineffectual. The result of sanitary activity had been a reduction in small-pox and cholera, although fever had not diminished. The death-rate of European soldiers had diminished from 69 to less than 14 per thousand, and the best insurance offices would insure the lives of Europeans going out to India without exacting the extra premiums required in former years. The better educated classes were taking a greater interest in, at least, external sanitation. At the same time he did not hesitate to say that the abolition of the Contagious Diseases Act was calculated to do more evil in India than all the sanitary measures would do good (applause).—Exception was taken to the statement that insurance policies were allowed to Anglo-Indians without the payment of an extra premium.—Surgeon Major T. H. HENDLER, the Government of India delegate for Rajpootana, and other gentlemen continued the discussion, which was adjourned.

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THE CONGRESS OF HYGIENE.

The several Sections of the Congress assembled yesterday, and resumed the reading of papers, in the rooms of Burlington House and other buildings in the neighbourhood, which have been placed at the disposal of the Congress.

STATE HYGIENE.

Professor PISTON, of Berlin, presided over this Section. Mr. D. BIDDLE furnished a paper on the question, "Should compulsory notification of infectious diseases be made general?" Notification, he said, was a means to an end, that end being isolation. Where the dual system was duly enforced people were said to crowd the hospitals, but the proper aim of sanitation was to lessen these crowds, and to save life. He contended that the decline in death-rates, general and zymotic, which was almost universal in England, received a check in towns under the dual system; and that there had been a greater proportion of deaths by diseases that should be notified than occurred in towns under no system of notification. The dual system was dishonouring to the profession. If by compulsory notification was meant the system embodied in the Infectious Diseases (Notification) Act of 1889, a decided negative should be returned to the question of his paper.

Dr. J. SPOTTISWOODS CAMERON, Medical Officer of Health, Leeds, read a paper illustrating the advantages of the isolation of persons exposed to infection; and related the result of the application of the principle to a limited outbreak of typhus fever in Leeds during the spring of 1890.

Dr. A. NEWSHOLME, Medical Officer of Health for Brighton, read a paper on "The teaching of the laws of health in schools." He insisted that hygiene should be made a class subject in all elementary schools. The course of study should be graduated for different standards, and should embrace the elements of chemistry and physiology.

Miss M. E. SCOTT furnished a paper on "Women's work in promoting the cause of hygiene," and Mr. G. CUNNINGHAM, Lecturer on Dental Surgery, Cambridge University, read a paper on "The need for popular instruction in preventive dentistry." Decay of the teeth was, he said, a preventable disease. He recommended the delivery of popular lectures and the issue of a popular treatise on our teeth and their diseases, edited by some dental expert.

THE RELATION OF THE DISEASES OF ANIMALS TO MAN.

The members of this Section met under the presidency of Sir NUGEL KINGSCOTE.

Professor CHAUVIN, of Paris, contributed a paper on "Anthrax, and its relations to workers in various trades." He said this disease was known over the whole globe, and had been described by travellers in all parts of the world known from the earliest times. It was probably the cause of some of those devastating plagues spoken of in the early and middle ages as attacking animals and spreading to mankind; but, owing to the want of exact methods then, it was probably often confused with other diseases. Anthrax was primarily a disease of animals, more particularly of ruminants. After reciting the occupations in which infection most frequently occurred, the author recommended that the prevention of the disease should be carried out by legislation.

Mr. FREDERICK SMITH read a paper on "Veterinary hygiene." He contended that the veterinary profession in this country was neglected, and urged that the Royal College of Veterinary Surgeons should be requested to institute examinations in veterinary hygiene, and to have the subject taught in the schools. The value of veterinary hygiene to the State could not be over estimated; by its services for many years past, glanders, farcy, mange, cancer of the foot, specific ophthalmia, and other diseases were now practically unknown in the army.

CHEMISTRY AND PHYSICS.

The proceedings in this Section opened with a paper read by Dr. A. BUCHAN, of Edinburgh, on "Meteorology in relation to hygiene." Dr. BUCHAN said London afforded the best available material for inquiry into the relation between the weather and public health. Bronchitis and heart disease were to a large extent directly under the influence of temperature and humidity; and such epidemics as scarlet fever, diphtheria, and whooping cough were largely determined by the season and weather. The climate of London in relation to public health might be divided into six distinct types according to the season of the year. The current for the whole mortality showed two maxima differing from each other. One, the greatest and longest, extended from the months of November to April, and the other was strictly confined to the warmest summer weeks.

The summer maximum virtually disappeared from the current of the whole mortality if the mortality among infants under one year was deducted from the gross figure, so that the most deleterious element in the climate of London to the health of the people was the low temperature of the winter months, as must be the case in any district where the temperature frequently fell below 50 degrees. Of the diseases by which the excessive winter mortality was occasioned, the first place must be assigned to diseases of the respiratory organs, including bronchitis and pneumonia, to which one-fifth of the whole mortality of London was attributable. Statistics showed that the greatest mortality from these diseases occurred when the temperature was between 32 and 40. In New York, though the temperature of winter was ten degrees less than ours, the mortality from these diseases was much less, there being an absence of raw weather. Another element that brought about a very high death-rate was fog, which had up to the mortality with alarming suddenness in proportion to its density to a degree only exceeded by Asiatic cholera. In summer the maximum was caused by diseases of the abdominal organs.

In a paper on "Influenza and the weather of London," prepared by Sir A. McNICOLL and Dr. HUGHES, it was stated that the distribution of temperature and the distribution of deaths from influenza during the winter of the year were inversely related; that when the mean temperature was low, the mean death rate was high, and vice versa. Further, the distribution of deaths from influenza was essentially the same distribution as that for bronchitis and pneumonia, or, speaking generally, for diseases of the respiratory organs. The last epidemic of influenza in London occurred about the middle of April; the deaths in the third week of that month were ten, after which they rose with increasing suddenness week by week to the maximum of 225 in the third week of May; and since then the numbers had been 210, 205, 240, 182, 117, and 16 in the last week of June. During these eleven weeks, the total number of deaths had been 1,572, accounted for by influenza alone, and in this total were added a very large number due to complications with other diseases. The excess over the average mortality was comparatively small at all ages under 25, but above 25 the excess of the mortality rose steadily with age. Thus for the six weeks beginning with May 16, the death rate at 50 years and upwards was 117 per cent above the average of the season. The deaths from influenza accounted only for a very small fraction of the increased total mortality of London during the epidemic. Other diseases showed an extraordinarily high death rate of which the weather afforded no explanation, pointing clearly to something of an exceptional character in connection at the time.

In the discussion that ensued, it was stated that if germs existed anywhere in Europe, typhoid and cholera could be brought to this country as well as bacterial progress, transport them as where.

Dr. JOHN GOSWELL followed with an account of recent hygienic improvements in the manufacture of bread, in which he showed his hearty approval of the views of the time, and the activity agreed well for the future of bread as the staff of life.

INFANTS, CHILDHOOD, AND SCHOOL LIFE.
Mr. J. R. DODD presided over this Section.

Dr. SCOTT WORTH, Medical Superintendent of the Royal Albert Asylum, Lancaster, contributed a paper on "The care of the mentally feeble as distinguished from the idiotic child." He said mentally feeble children were often the victims of their surroundings. An improvement of general nutrition was essential to mental improvement. Specially adapted education was necessary for feeble-minded pupils. It was necessary to have distinct arrangements for this class in any truly national system of education.

Dr. FLEMING BROWN, of Bradford, read a paper on "The care and treatment of epileptic, feeble-minded, and imbecile children." The author proposed that homes should be prepared for the best class, where they could be trained mentally and physically, and where medical treatment could be pursued. He objected to their being sent to day schools, because it would be impossible to supervise their diet and hours of sleep, to guard them against states of excitement in their own family, and to ensure that the treatment prescribed was given. The care and treatment of the feeble-minded was a much larger question. He suggested that auxiliary schools, similar to those in Norway and Germany, should be established for feeble-minded children, in which instruction adapted to their powers of reception should be given by teachers engaged in the methods required to call out the faculties of such cases. The accommodation required for the care and treatment of imbecile children was markedly deficient. He detailed the measures required for the further accommodation of this class, and concluded with a short sketch of the kind of training which was given in institutions for idiots and imbeciles.

Dr. CAMBERG, Principal of the Royal College for the Blind, Newport, was the author of a paper on "The education of the blind." He said the large

majority of the blind were found among the poor, and the cost of their education must either be drawn from charitable sources, or provided by the State. Continental governments, the United States, and most of the English Colonies made provision for the education and training of their blind children. In Great Britain this work had been left wholly to charity. The fact that 42 per cent of those trained in institutions found themselves unable to continue to practice the trade taught to them, while about 21 per cent of the remainder did work, but earned less than 15s. per week, indicated either a great deal of inefficient teaching, or a want of proper facilities for working, and disposing of their work. Many ingenious systems of teaching and writing had been devised, and with the intelligent blind throughout the world the question of the hour was "this or that plan."

General MORTIMER, of the London School Board, read a paper on "The physical, mental, and social education of the blind." He said there was great ignorance as to the power of teaching deaf-mutes and it was as this ignorance he anticipated the fact that many children were not brought into the classes for the instruction of deaf-mutes till they were considerably above the age at which it was considered advisable to begin their education. If children were admitted at an early age, he would see every obstacle to their progress removed, and by reading for six or seven years, as recommended by the Royal Commission, and after that would continue the system or remove the child to a separate class where the sign and manual method was carried on, according to each pupil's ability and aptitude.

The following resolution was adopted by this Section:—"That this Congress do appoint a commission consisting of three persons, one of whom shall be a medical and surgical officer, education, and statistics, whose duty it shall be to inquire into mental feebleness in children, beginning with small districts, and continue to carry out the same according to a final plan."

DEMOGRAPHY.
Dr. MOCAT presided over this Section.
Mr. F. GALTON, exhibited and explained his method of identification by means of finger-prints, which, he said, invariably retained from infancy to age the same lines, varied only by the increased growth of the individual, and by the alterations from obesity to leanness. This sort of evidence, he contended, would be of the greatest importance in such cases as that of the defendant in the Taborer trial and other, because the finger-prints of the real but Roger when compared with those of the pretended bandit would at once have settled the main point at issue.

In the discussion which followed, Dr. WILKINSON SMITH, while recognizing the importance of the finger-print system as a means of identification, pointed out a difficulty which suggested itself to his mind, as operating against the adoption of that method; namely, that if it were known to be the accepted mode of identification, a slight amount of self-sanctification would enable any one to destroy the skin surface, so as to obliterate the distinctive marks.

"The physical condition of children seen in schools and the local distribution of conditions of defective development," was the subject of a paper read by Dr. F. WALLACE, who stated that, taking 10 public elementary day schools, containing—boys, 24,137, girls, 12,504, total 36,641 children, arranged in 10 groups according to locality, from north of the Thames, five south of the Thames, and three in districts in Surrey, it appeared that the defects were very unequally distributed, suggesting that they might be determined by local circumstances. The poorer districts did not appear to produce the worst made children. As a rule, the boys were worse made than the girls. If this attempt to take, on a limited scale, a census of the physical condition of samples of the school population were found useful it could easily be carried out on a large scale. Mr. WATSON concluded by reading a resolution to be afterwards submitted to the vote of the Section declaring that an attached scientific inquiry was desirable for the further elucidation of the subject.

Mr. W. R. PATRICK read a paper, contributed by himself and Mr. J. S. TURNER, giving the results of "An examination into the teeth of school children." Another paper, on "The physical condition of paper children housed out under Local Government Orders of 1870 and 1880," was contributed by Miss FANNY FURZE, who from the investigations she had made drew the general conclusion that the boarding-out system was accompanied by physical improvement in the bulk of the cases in which children had been subjected to that system.

A discussion embracing the last three papers followed, and the whole of the business connected with the reading of papers having been disposed of, Dr. MOCAT proposed the following resolution:—"That this Division think it incumbent, and accord-

ingly declines to express any opinion upon questions that have not directly arisen out of papers read and been formally announced for discussion with a view to a vote being taken upon them."

This was put to the vote without discussion, and was carried by 20 against 2.
Dr. WATSON's resolution was then put and passed unanimously.

Dr. VON HARTZ moved a resolution recommending, on behalf of the Congress, the collection of a series of detailed statistics as to matters of insurance among the working classes, from countries in which this system of insurance exists.

This was carried without opposition, except that four members declined to vote.

A vote of thanks was passed to the President, on the motion of Dr. MOCAT, and the business of the Demography Division was brought to a close.

PREVENTIVE MEDICINE.
A paper prepared by Deputy Surgeon General BROWCK and Sir V. K. BALANTRON, delegates from the Metropolitan Asylum Board, on "The hospital and ambulance organization of the Metropolitan Asylum Board for the removal and isolation of infectious diseases," was read. After describing the development of the Board's hospital system the paper said that for some years attention had been given to the danger to the community likely to arise from the conveyance of persons suffering from infectious diseases in public conveyances; and in 1850 the matter was treated separately by the Asylum Managers by the Commissioner of Police, who applied to them to undertake the disinfection of public carriages that had been so used. This the Managers declined to do, on the ground that owing to the frequency of these carriages, complete disinfection was impossible, and that by so doing encouragement would be given to a practice which they considered to be most objectionable; but they made a representation to the Local Government Board, and obtained from them, by the Act of 1855, authority to remove their ambulance persons suffering from infectious diseases to other places than their hospitals. The diseases included small-pox, cholera, diphtheria, membranous croup, erysipelas, scarlatina or scarlet fever, typhus, typhoid, enteric, cholera, cholera, and purpura, fever, and measles. At the present time the Metropolitan Asylum Board was placed by law in the position which it had previously occupied by force of circumstances for several years. Every inhabitant of London was now legally notified, when suffering from fever, diphtheria, or small-pox, to claim admission into one or other of the Managers' hospitals, or to call upon them to carry him to any other hospital or place within the metropolitan district.

A paper on "The prevention of fever in India" was read by Surgeon General Sir WILLIAM MOORE. The prevention of fever depended, he said, much more on strengthening the general sanitary course than on any other measure. Every energy should be applied to the progress of general sanitation, to the diffusion of a knowledge of personal hygiene, and to the detection of the ignorance, fatalism, and caste prejudices of the majority of the natives of India, now so opposed to public health. Although Government could not do much on a large amount of general sanitation, the State could not interfere directly in the ordinary internal daily life of the people. He had not time to describe the lamentable sanitary inferiority of a native house, nor to detail the habits of the people; but he was sure that, with material and moral progress, these would be sanitary progress, and with sanitary progress, fever would diminish. Whether Indian fevers were due to malarial or to other causes, or to both, all directions for their prevention tended to increase dryness of the climate, and thus lessen the sources of chill; or by clothing, scratching, food, avoidance of fatigue, and quinine, to prevent their operation.

In the afternoon papers on various subjects were read. Surgeon-General BROWCK (Barbours) dealt on the prevention of cholera in growing towns. He asked whether the time had not arrived for the establishment in this country of a State Department of Hygiene for central and guidance of local sanitary authorities, the consolidation, interpretation, and enforcement of existing sanitary laws, and the general conservation of public health. Without the aid of such an institution would the prevention of disease in growing towns ever become a possibility? While he had it, he would not the voice of public opinion make itself heard, and declare with an earnestness against the settlement of new colonies of large numbers of emigrants, which their could not by any sort of sanitary aid be rendered safe.

Dr. F. A. MANNING spoke on the alleged connection of vaccination with leprosy, and submitted the following conditions—1. That the spread of leprosy, which has been noted in many parts of the world, cannot be put down to vaccination? 2. That although a cure may sometimes be obtained in accidental inoculations of leprosy, by vaccination may be possible, there are no clear cases in proof? 3. That, nevertheless, it becomes needless even in leprosy countries to discourage sero-to-ann vaccination among the natives.

The meeting on "Sanitary Progress in India" was resumed in the evening, Sir M. GRANT DUFF in the chair. The subject was further discussed, and the following resolutions were come to:—"That, looking to the interest shown by India in this Congress, and considering the possibility that other tropical countries will take a similar interest in future Congresses if a more prominent position were given to the consideration of subjects in which they are interested, this meeting recommends to the Permanent Committee that, in future Congresses, a Tropical Section be formed, with a view to a fuller discussion of questions affecting sanitation and the origin of diseases in tropical climates."

ARCHITECTURE IN RELATION TO HYGIENE.

Dr. A. W. BOURNE presided over this Section.
Dr. THOMAS LESTER, Local Government Board Inspector, read a paper on "English isolation hospitals." Out of a total of 1214 provincial sanitary hospitals (urban, rural, and port) in England and Wales, some 400 had provided isolation hospitals other than those connected with the administration of the poor law. A hospital such as that recently erected for the poor law, and at the joint expense of the Warwick and Leamington sanitary authorities might be regarded as embodying all the principles for adoption.

The Rev. C. P. G. VINE, vicar of Beal, Severn-side, read a paper on "Temporary isolation hospitals." He said it was, in his opinion, a question well worth considering whether it was not, in the whole, far better to treat fever cases in the locality where they arose rather than to transport them to large central hospitals. A large central hospital was needless, damaging to the value of property, and only in the immediate neighborhood, but in the district generally, inasmuch as the fever of an area of perhaps some 15 or 18 miles in breadth was likely to be carried into it along the country roads. He recommended that temporary hospitals might be erected for about 25s. per bed, or one-sixth of the cost of a central hospital.

BACTERIOLOGY.

The proceedings in this Section were divided into Disinfection and Disinfectants, Preventive Inoculation, and the Bacteriology of Air, Soil, and Water. In the first Division Dr. BOHNING (Berlin) discussed "Disinfection in the living body," and Professor UNKOWSKI (London) gave an account of experiments bearing on aseptic surgery. Professor HENRIQUE (Prague) spoke on necrosis as a disinfectant; and the action of antiseptics in the healing of wounds was described by Dr. BULLER (London). The value of inoculation, especially against cholera, was discussed at length by Dr. BOSS, Professor BAKER (Birmingham), Professor HIGGINS (Birmingham), and others. "Typhoid fever in connection with drinking water" was dealt with by Professor FODOR (Budapest) and Professor PETER FRANKLAND and Dr. M'WHIRNEY, and the importance of the bacteriological examination of water.

THE CONGRESS OF HYGIENE.

Saturday was devoted by the members of the Congress of Hygiene and Demography to pleasure, the sectional meetings having been concluded on the previous day. Excursions had been arranged by which journeys were to be made to Cambridge, Bournemouth, Windsor, Netley, Gravesend, Birmingham, Wolverhampton, and elsewhere, though, as will be seen from our report, the members expected at the last-named place failed to appear, to the evident chagrin of the mayor and corporation, who had prepared to welcome them in hospitable style. At Cambridge the visitors were received by the Vice-Chancellor at the Senate-house, where honorary degrees were conferred upon several of their number, and their programme for the day included also a luncheon at King's and a garden party at Trinity. To-day the Congress holds a final meeting, after which the foreign members will begin to return to their own lands.

About 60 members of the Congress accepted the invitation of the University of Cambridge to visit that ancient seat of learning on Saturday. The middle of the Long Vacation, as the period between the end of the Easter term and the commencement of the Michaelmas term is designated, would, less than 20 years ago, have been a most inappropriate time for the visit of any learned or representative body. But now the Long Vacation has really become a fourth term in the University. From the second week in July until the end of August a large number of students—and every year their number increases—reside in the colleges by permission of the authorities in order to study for the honour examinations. Under conditions of far stricter discipline than is required in term time, lectures are organized, classes are formed, and, more especially in the case of natural science students, the educational advantages of the Long Vacation are admitted as an absolute necessity for securing a good place in the Tripos. So although the University, by a fiction, was supposed to be non-existent, yet a very representative gathering of University teachers and students assembled in the Senate-house to welcome the members of the Congress. The Vice-Chancellor held a reception, and after the formal ceremony of individual introduction was completed, Dr. Butler addressed them on behalf of the University. He said that the cause which they represented on so august a scale was one which Cambridge rejoiced to honour, because it combined two treasures which she especially prized, on the one hand exactness in thought and knowledge, and on the other a generous and enlightened philanthropy. The sciences with which their names were identified had their birth indeed in the brain, the study, the laboratory of each solitary thinker, but they were not content to remain in that austere seclusion. As soon as they were satisfied that some secret of nature had been revealed, or a remedy had been found for some malady, they emerged from their solitude and pressed forward to relieve the human race. He said relieve the human race, for Cambridge some 300 years ago was the intellectual home of Francis Bacon; and such labours as they were engaged in went far to fulfil Bacon's majestic dream of the advancement of learning, accompanied at every stage by the progressive well-being of man, and to justify his memorable definition of knowledge as "a rich store-house for the glory of the Creator and the relief of man's estate." Bacon loved to distinguish between two classes of experiments, between what he called "experimenta lucifera" and "experimenta fructifera," experiments which end in more light and experiments which end in more fruit, experiments of which increased knowledge in the case of the few is the sole and adequate reward, and experiments in the blessings of which the whole family of man, however frail and helpless, was graciously permitted to participate. How would such a man as Bacon, that potent and enterprising genius, that truly prophetic spirit, have regarded such an assemblage as was gathered to-day in that Senate-house, an assembly not of dreamers or talkers, still less of combatants or of controversialists, but of thinkers, of workers, of investigators, of demonstrators, of the acknowledged leaders of their respective sciences, banded together to erect a temple of knowledge on the only sure foundation, prolonged, patient, and world-wide induction, men who had come to our country from almost every part of the globe to collate their splendid experiments, exhibiting to the intellectual

world the brightness of their light, and to the material world—the world of suffering, disease, and decay—the richness and the ripeness of their healing fruit. (Cheers.) This University, said the Vice-Chancellor—the University of Bacon, Newton, Charles Darwin, Clerk Maxwell, and young Francis Balfour—offers you its greeting to-day. Go on with your beneficent labours till not only experts accept your victorious conclusions, but even the poorest, the humblest, the least instructed classes rise up from their insensibility and call you blessed. Continue your efforts for the well-aspects as well as its physical and material. But it is our creed that the relief of man's bodily estate by the gradual advance of man's physical knowledge is part—and a magnificent part—of the Divine purpose, and we thank God that at no period of the world's history has this advance been so rapid and so beneficent as in the generation in which we live and work and wonder. Of this advance the visit of the Congress is a signal and memorable proof. (Cheers.)

The ceremony of conferring the honorary degrees of LL.D. took place at about 1.30. The procedure was precisely the same as if the proceedings had taken place in full term. There was the usual procession into the Senate-house, the Vice-Chancellor preceded by the Esquire Bedells, the heads of colleges, doctors, professors, and members of the council following in due order. It was somewhat remarkable the large attendance of doctors in their scarlet robes, the members of the medical faculty predominating, but each faculty was represented. The Senate-house was well filled; the undergraduates in the galleries mustered in considerable numbers, and gave real evidence of their presence by demonstrative but not inappreciative comments on the Public Orator's address.

The Public Orator (Dr. Sandys), who, in compliment to the recipients of the honorary degrees, adopted the Italian pronunciation in delivering his Latin oration, commenced by welcoming the members of the congress, "Qui aliorum salutem preclare consulitis vosmetipsos omnes jubemus salvere." He went on to say that Cambridge was the first University in the United Kingdom to establish examinations and grant diplomas in sanitary science. Other bodies had followed her example, and by recent legislation these "diplomas in public health" had been recognized as a necessary qualification for medical officers of health. There was a certain fitness in conferring the honorary degree of Doctor of Law on some of the distinguished delegates of Continental nations at the International Congress of Hygiene. Cicero in the "De Legibus" had himself observed "populi salutem supremam esse legem."

Professor Paul Brouardel, who represented France, was first presented as an eminent citizen of a neighbouring Republic, "gentis nobiscum libertatis bene temperate amore conjuncta," as an able professor and the active editor of the "Annales d'Hygiène Publique et de la Médecine Légale." César, according to Suetonius, "omnes medicinam Romæ professos civitate donavit." Cambridge could not be as liberal as César in conferring her distinctions, but she had civic obligations to the honour of receiving a "corona among the medical jurists of France."

The Orator, before presenting Professor Corradi, alluded with regret to the unavoidable absence of the representatives of Austria and Germany—Professor C. T. von Inama Sternegg and Baron von Esmerich. Professor Corradi was welcomed as an honoured alumnus of the University of Bologna, and as professor successively in the Universities of Modena, Palermo, and Pavia. He had happily combined the study of history with that of medicine, and had discovered themes for learned investigation in the Decameron of Boccaccio and in the life of Tasso. According to Tacitus the Roman Emperor Claudius had restored the ceremony of the *auspium salutis*, and had enacted that it should not fall into disuse. It was a happy omen that Italy was so well represented at the Congress of Hygiene, and it was interesting to recall on such an auspicious occasion the not inappropriate phrase preserved from the Roman poet, that Rome existed before the days of Romulus, and that the Eternal City owed its name not to Romulus, but to a "diva flava et candida Roma, Esculapii filia."

Lastly, Professor von Fodor, as the representative of Hungary, was presented as Professor of Hygiene and Forensic Medicine at Budapest. His chief publications were alluded to, especially his hygienic investigations into the air, soil, and water in reference to epidemic diseases. Reference was made to his success in the science of bacteriology.

At the conclusion of the Public Orator's speech, the several gentlemen were admitted to the degree of LL.D. *honoris causa*.

The proceedings in the Senate-house having terminated, the visitors were entertained at luncheon in the hall of King's College. Sir George Paget, the

Regius Professor of Physic, in appropriate terms proposed "Health and Long Life to the Members of the Congress," observing that they were entitled to gratitude for their labours and investigations undertaken with the object of maintaining health and lengthening the lives and happiness of all nations. Professor Brouardel responded in French. The visitors were next conducted to the chief buildings, museums, and laboratories of the University and through some of the colleges. Later in the afternoon the Vice-Chancellor gave a garden party at Trinity College, which was well attended. The members of the congress left about 6 for London, and expressed themselves delighted with their reception. The success of the visit is in a great measure due to the indefatigable exertions of Dr. Donald Macalister, the hon. secretary of the reception committee.

The service yesterday afternoon at Westminster Abbey was more particularly designed for the members of the Congress of Hygiene and Demography, who had received invitations to attend. The Abbey was crowded to its utmost capacity, and many were unable to obtain admission. The sermon was preached by Archdeacon Farrar. The preacher said that the work of the congress which had met that week was a work which every minister of God should with all his heart encourage. The formation of that congress seven years ago, its annual meeting in one of the great capitals of Europe, were among the happy proofs that religious selfishness was being replaced by a more social, a more beneficent, a more nobly altruistic view of life and its duties. It was called the International Congress of Hygiene—that was, of the study of the life conditions of communities from statistical points of view. To prevent the spread of epidemics, to avert the approaches and to mitigate the agony of disease, to minimize infection in our huge growing cities, to combat the nation-destroying course of alcoholism, to solve the problems of inoculation, to give to suffering man the priceless blessings of pure air, pure water, and untainted food, to dispel our lurid and noxious fogs, to protect the dwellers in insanitary houses and the workers in insanitary trades, to extend its merciful aid to infancy and childhood, checking overpressure, and giving to the morn of life its natural blessedness—those were the aims of its wide-reaching philanthropy. He called it a truly noble programme. It gave an excuse for optimism, it furnished grounds for hope. Such studies, such inquiries, were a part of that religion which recognized that if Christianity was to be indeed the noblest factor in the advancing progress of the world it must show that it cared for men's immortal souls by caring for their mortal bodies; it must deal with man's present woes as well as with his future perils. He claimed the work of that congress as work in the highest sense worthy of the Church of Christ. He believed that it would be blessed and approved by Him whose soul trembled with sympathy for the most wretched; by Him who took the little children into His arms, laid His hands upon them, and blessed them; by Him who said that even a cup of cold water given in His name to one of His little ones should not miss its reward. He claimed the work of all those busy and eager minds devoted to the elucidation of natural and social laws as work which the Church of God most heartily blessed and approved. They were studying with exemplary reverence God's great bibles of nature and of history and of experience. Their work for the good of humanity was work in the service of Christ. It was founded on the conviction that the apparent indifference of nature merely meant the beneficent fixity of the material laws of God. Every triumph of that science which for the good of mankind, the present congress had met to promote had only been rendered possible by the blessed invariableness of law. And how linear had been the progress of science! How glorious her triumphs, not only of beauty and wonder, but also of beneficence and power! She pointed not to pyramids built during weary centuries by the sweat of miserable nations, not to folios of dead *formulae*, but to the lighthouse, and the steamship, and the railroad, and the telegraph; she had restored eyes to the blind and hearing to the deaf; she had lengthened life, she had minimized danger, she had controlled madness, she had exorcised the grisly phantoms of diseases. But the teaching of science, taken alone, would be terrible and imperfect. It only attained the full glory of its meaning when it was divinely supplemented by Him who was the Word of God. Nature worked with fearful uniformity; stern as fate, absolute as tyranny, merciless as death, she had no ear to hear, no heart to pity, no arm to save. Science knew nothing, because nature knew nothing, of the forgiveness of sins. It required Christ to save the life of the sinner from anguish and despair, to tell of that Father of mercy who still opened His forgiving arms to His hapless and self-ruined prodigals.

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THE HYGIENIC CONGRESS.

The final meeting of the members of Congress was held yesterday in the Theatre of the University of London, when Sir DOUGLAS GALTON occupied the chair. There were also present, Sir H. ROSCOE, M.P., Sir Thomas Parer, Sir R. Rawlinson, Dr. Ogle, Dr. Wynter Blythe, Dr. G. V. Poore (general secretary), &c.

The President said he had to congratulate the members of the Congress upon the great success which had taken place in the meeting just closed. The number of members was larger than any they had ever had before, and those who had taken part in the reading of papers were also more numerous than they had known before. The papers read were of high value, and would produce a permanent influence on the branches of hygiene and demography to which they severally referred. The number of foreign members was highly flattering to us as a nation. Their success was owing to the gracious patronage of the Queen, and to the strong personal interest which had been taken in their Congress by their President, the Prince of Wales (applause). By his Royal Highness's special favour the heads of the principal sections were presented to the Queen (applause). Foreigners were able to pursue the theories upon which modern hygienic progress was based; but in England public opinion had hindered the study of many physiological questions, the solution of which depended upon the examination of living tissue. They were therefore somewhat behind the Continental schools, but in England they largely turned their attention to those matters which affected the wants of life. They were therefore able to show the foreigners many interesting illustrations of practical hygiene in construction and administration. Water supply, drainage, sewage treatment, were illustrated by numerous works which were visited. Questions affecting India had been discussed at two special meetings. With regard to the work done at the Congress, they were greatly indebted to Dr. Pearce, Dr. Corfield, Mr. S. Digby, and Mr. Malcolm Morris (applause). If any inconvenience had been suffered by anyone he hoped the Council would receive the forgiveness of those affected (applause).

M. ADOLPHE SMITH, one of the hon. secretaries, repeated the President's speech in French. He also translated all the resolutions passed during the Congress by the several sections, which were read in English by Dr. Poore, and all the resolutions which were submitted to the Congress.

Professor CORFIELD read the report of the Permanent Committee with regard to the next place at which the Congress should meet, Buda-Pesth being recommended for the year 1894.

This was proposed by Dr. BROUARDEL, seconded by Dr. OGLE, and was unanimously approved.

Dr. KOROSI, of Buda-Pesth, expressed the gratification it would give the city to receive the Congress.

Dr. POORE read for Dr. KOROSI an announcement offering a sum of 1500*l.* as a prize for the best work on the subject of Demography, and its progress in the chief countries of Europe and in the United States of America. The MSS. to be sent in by January 1, 1894.

Professor SELL, of Berlin, moved that the President be respectfully requested to tender to the Queen, on behalf of the Congress, their grateful thanks for her gracious conduct in becoming patron of the Congress, and for her hospitality to the members who visited Osborne House (applause).

Dr. KUSY, Austria, seconded the motion. Colonel WOODHULL, of the United States, supported the motion. He hoped that the time would soon come for his country to receive the Congress (applause).

Dr. BROUARDEL, of Paris, also spoke in support of the motion, which was passed with applause.

M. GENNADIUS, the Greek Minister, proposed that the thanks of the Congress be dutifully tendered to the Prince of Wales for the untiring interest which he had manifested in the Congress, and to which the success of the Congress was largely due (cheers).

Dr. BELMAR, of Madrid, seconded the motion, which was supported by Dr. Ozatary, of Buda-Pesth, Dr. Silva Arnado, of Portugal, Professor Van Oterbech de Meyer, of Amsterdam, Professor Linroth, of Sweden, and Dr. Prospero Sossino, of Pisa.—The motion was passed with applause.

Sir OWEN BLOWNE proposed a vote of thanks to the Secretary of State for India, the Viceroy, and certain Indian Princes, for the support they had given to the Congress.

Surgeon General CORNISH seconded the motion, which was also adopted.

Dr. BUCHANAN moved a vote of thanks to the foreign Governments, and especially to the Danish Government, for the support given to the objects of the Congress.

Dr. SAMBON, of Naples, seconded the motion, which was passed, and responded to by the representative from Denmark, Dr. LEHMANN.

Dr. POORE moved a vote of thanks to the several learned societies, corporations, noblemen, and others who had contributed to the entertainment of the representatives at the Congress.

Professor GURASCHEK, of Vienna, seconded the motion, which was supported by many foreign delegates.

IBRAHIM PACHA, of Alexandria, also spoke in support of the proposition.

Mlle. ROSE LYON, delegate of the "Union Internationale des Sciences et des Arts," Paris, also spoke in support of the motion, which was passed unanimously.

A vote of thanks was passed to the Executive for their services towards the delegates, and the able manner in which they had secured the success of the Congress.

The motion was passed, and the vote was responded to by Dr. POORE, Dr. CORFIELD, and Mr. MALCOLM MORRIS.

Sir JOSEPH FAYERS replied on behalf of the presidents of sections.

Sir ROBERT RAWLINSON proposed a vote of thanks to the chairman of the meeting.

Dr. EUGEN SELL seconded the motion; to which the CHAIRMAN made a suitable response, and the meeting terminated after a sitting of three hours.

Pall Mall Gazette Aug. 17. 1891

PROSE PASSAGES FROM LOWELL.*

Now that James Russell Lowell is dead a good many people who have hitherto known him only by name will turn with a newly-awakened interest to his works. He will probably be read as much during the next three months as he has been in any three years of his life. Both his prose and his poetry—and in each of these spheres he excelled—will come in for a share of attention. The present moment, therefore, is an opportune one to commend the "Riverside Edition" of the late Mr. Lowell's writings. It is comprised in ten volumes, six of which contain his prose contributions to literature—literary essays, political essays, and literary and political addresses—while the remaining four are taken up with his poetry. It is with the former that we propose in the present article to deal.

CARLYLE THE CONTINUATION OF WORDSWORTH.

Here is an excellent specimen of Mr. Lowell's style in the shape of an extract from his essay on Carlyle ("Literary Essays," ii, 117—119):—

With the gift of song, Carlyle would have been the greatest of epic poets since Homer. Without it to modulate and harmonize and bring parts into their proper relation, he is the most amorphous of humorists, the most shining avatar of whom the world has ever seen. . . . But, with all deductions, he remains the profoundest critic and the most dramatic imag nation of modern times. Never was there a more striking example of the *ingenium perforatissimum* long ago said to be the characteristic of his countrymen. His is one of the natures, rare in these latter centuries, capable of rising to a white heat; but, once fairly kindled, he is like a three-decker on fire, and his shotted guns go off, at the glow reaches them, alike dangerous to friend and foe. . . . Though not the safest of guides in politics or practical philosophy, his value as an inspirer and awakener cannot be over-estimated. It is a power which belongs only to the highest order of minds, for it is none but a divine fire that can so kindle and irradiate. The debt due him from those who listened to the teachings of his prime for revealing to them what sublime reserves of power even the humblest may find in manliness, sincerity, and self reliance can be paid with nothing short of reverential gratitude. As a purifier of the sources whence our intellectual inspiration is drawn his influence has been second only to that of Wordsworth, if even to his. Indeed, he has been, in no fanciful sense, the continuation of Wordsworth's moral teachings.

THE CHARACTER OF SHAKSPEARE.

Let us turn from Carlyle and (in the company of Mr. Russell Lowell) gaze for a moment upon the character of the great world-poet Shakspeare. "Men go about to prove the existence of a God!" exclaims the poet in his essay on Shakspeare ("Lit. Essays," iii, 93). "Was it a bit of phosphorus, that brain whose creations are so real that, mixing with them, we feel as if we ourselves were but fleeting magic lantern shadows":—

But higher even than the genius I rate the character of this unique man, and the grand impersonality of what he wrote. What has he told us of himself? In our self-exploiting nineteenth century, with its melancholy liver complaint, how serene and high he seems! If he had sorrows, he has made them the woof of everlasting consolation to his kind: and if, as poets are wont to whine, the outward world was cold to him, its biting air did but trace itself in loveliest frost-work of fancy on the many windows of that self-centred and cheerful soul.

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"ALL HONOUR TO THE LOFTIEST OF POETS"

In the essay upon Dante—and Lowell, be it remembered, was, next, perhaps, to the late Dean Church, the greatest Dante scholar of the century—he ventures upon a comparison of the author of "La Divina Commedia" with Shakspeare:—

All great poets have their message to deliver us from something higher than they. We venture on no unworthy comparison between him who reveals to us the beauty of this world's love and the grandeur of this world's passion, and him who shows that love of God is the fruit whereof all other loves are but the beautiful and fleeting blossom, that the passions are yet sublimer objects of contemplation when, subdued by the will, they become patience in suffering and perseverance in the upward path. But we cannot help thinking that if Shakspeare be the most comprehensive intellect, so Dante is the highest spiritual nature that has expressed itself in rhythmical form. . . He has shown us the way by which the country far beyond the stars may be reached, may become the habitual dwelling-place and fortress of our nature, instead of being the object of its vague aspiration in moments of indolence. At the Round Table of King Arthur there was left always one seat empty for him who should accomplish the adventure of the Holy Grail. It was called the perilous seat, because of the dangers he must encounter who would win it. In the company of the epic poets there was a place left for whoever should embody the Christian idea of a triumphant life, outwardly all defeat, inwardly victorious, who should make us partakers of the cup of sorrow, in which all are communicants with Christ. He who should do this would indeed achieve the perilous seat, for he must combine poesy with doctrine in such cunning wise that the one lose not its beauty nor the other its severity—and Dante has done it. As he takes possession of it we seem to hear the cry he himself heard when Virgil rejoined the company of great singers, "All honour to the loftiest of poets."

"THE MOST IMPRESSIVE FIGURE IN OUR LITERARY HISTORY."

Mr. Lowell has written concerning another poet, who, if not exactly a "world-poet" like Homer, Dante, and Shakspeare, falls little short of their eminence. His essay on "Milton" would be remarkable if it contained nothing besides the clever banter with which he dismisses Mr. Masson's prolix and pretentious biography. But—like everything else which fell from his pen—it also contains passages of rare beauty. The following paragraph is interesting as coming from one who was himself at heart a Puritan during the greater portion of his life:—

Puritanism has left an abiding mark in politics and religion, but its great monuments are the prose of Bunyan and the verse of Milton. It is a high inspiration to be the neighbour of great events: to have been a partaker in them, and to have seen noble purposes by their own self-confidence become the very means of ignoble ends, if it do not wholly depress, may kindle a passion of regret deepening the song which dares not tell the reason of its sorrow. The grand loneliness of Milton in his latter years, while it makes him the most impressive figure in our literary history, is reflected also in his maturer poems by a sublime independence of human sympathy, like that with which the mountains fascinate and rebuff us. But it is idle to talk of the loneliness of one the habitual companions of whose mind were the Past and Future. I always seem to see him leaning in his blindness a hand on the shoulder of each, sure that the one will guard the song which the other had inspired.

POPE, SPENSER, AND WORDSWORTH.

Pope, Spenser, and Wordsworth are among the other English writers with whom Mr. Lowell has dealt (*vide* "Literary Essays, vol. iv."). Of Pope he very pertinently observes that "in his own province he still stands unapproachably alone."

If (he continues) to be the greatest satirist of individual men, rather than of human nature, if to be the highest expression which the life of the Court and the ball-room has ever found in verse, if to have added more phrases to our language than any other but Shakspeare, if to have charmed four generations make a man a great poet—then he is one. He was the chief founder of an artificial style of writing, which in his hands was living and powerful, because he used it to express artificial modes of thinking and an artificial state of society. Measured by any high standard of imagination, he will be found wanting: tried by any test of wit, he is unrivalled.

And of Edmund Spenser:—

No man can read the "Faery Queen" and be anything but the better for it. Through that rude age when Maids of Honour drank beer for breakfast and Hamlet could say a gross thing to Ophelia, he passes serenely abstracted and high, the Don Quixote of poets. Whoever can endure unmixed delight, whoever can tolerate music and painting and poetry all in one, whoever wishes to be rid of thought and to let the busy anvils of the brain be silent for a time, let him read the "Faery Queen." There is the land of pure heart's ease, where no ache or sorrow of spirit can enter.

And, finally, of Wordsworth:—

He has won for himself a secure immortality by a depth of intuition which makes only the best minds at their best hours worthy of his deepest poems. . . The case is proceeded in the debtor last week. An immediate order of discharge was granted to the estimated at £17,681. The proofs admitted amount to £12,230, and the assets are about by mistake. The proofs admitted amount to £12,230, and the assets are about by mistake. The proofs admitted amount to £12,230, and the assets are about by mistake. . . At the London Court of Bankruptcy this morning an application was made by Mr. Garrett Byrne, M.P. for West Wicklow, for the statutory certificate to the effect that his recent bankruptcy had been brought about by mistake. . . THE AFFAIRS OF AN IRISH M.P.

OUR HOME ARMY.

I.—THE GENERAL SITUATION.

TO THE EDITOR OF THE TIMES.

Sir,—Some weeks ago I ventured to address a letter to *The Times* containing some very strong statements with regard to the dangerously inefficient condition of our home Army. Having made these statements, I now propose to adduce some of the reasons which have led me to form the opinion I have expressed.

Let me however say at the outset that I make no pretension to produce "startling revelations" or to disclose secrets. The whole point of my case is that the abuses of our Army system are perfectly well known to every officer in the service; that they are the commonplaces of military discussion, and that it is just because they are so obvious and notorious that officers are beginning to despair of ever being relieved from them. I trust that no soldier will find fault with what is here written merely because to him it is a very old story. My object is to try and put before the general public some facts with regard to our military arrangements which the soldier knows and cares about, but which, as far as appearances go, the public either does not know or does not care about. It has been made a matter of objection to the statements contained in my letter that I have used strong expressions and made sweeping charges. It is said "The thing may be bad, but it cannot be so bad as it is painted. Our officials may have neglected their duties, but they cannot have neglected them to the extent alleged. Our Army system may not be perfect, but it cannot be an absolute failure."

The line of argument is specious, but in this particular case it is not entitled to prevail. Seven years ago strong things were said about the Navy. Charges were made by outside critics and were indignantly denied or pooh-poohed by the officials. What has happened since? Thirty-two millions sterling have been voted by way of special grant to the Navy. Over 100 new ships have been added to the fleet. The system of dockyard administration has been revolutionized. The old Ordnance Department has been destroyed and a new one created. Thousands of men and boys have been added to the personnel. Either these heroic measures were necessary or they were not; assuming that they were necessary, what condemnation could have been too sweeping for the officials who allowed the accumulation of arrears which could only be wiped out by such an effort? The sum of recent achievement is but a partial measure of previous deficiency.

The charge in respect of the Navy was that it was glaringly deficient. The charge was true, and the proof is to hand. The charge in respect of the Army is that it is glaringly inefficient; it will be for the public to judge whether the charge be true. But to dismiss the charge merely because it conveys a very serious indictment is not warranted by previous experience. I propose to do my best to prove that at the present moment the condition of our home Army is radically and essentially bad. And, further, I propose to demonstrate that, given our present system and our present organization, it cannot in the nature of things be otherwise than radically and essentially bad.

It is indeed most important that the public should clearly understand that our military weakness is due not to accident or to ill luck, not to imperfect execution of a correct design, but that it is the natural and certain consequence of a faulty and ill-considered plan.

THE OBJECT OF THE ARMY.

The first point to which I wish to draw attention is the want of purpose on the part of those who direct our Army. No one, high or low, has, as yet, made up his mind what part the Army is to play; whether it is to be utilized solely for home defence or to take

Pall Mall Gazette Aug. 17. 1891

The Times Nov. 17. 1891

"ALL HONOUR TO THE LOFTIEST OF POETS."

In the essay upon Dante—and Lowell, be it remembered, was, next, perhaps, to the late Dean Church, the greatest Dante scholar of the century—he ventures upon a comparison of the author of "La Divina Commedia" with Shakspeare:—

All great poets have their message to deliver us from something higher than they. We venture on no unworthy comparison between him who reveals to us the beauty of this world's love and the grandeur of this world's passion, and him who shows that love of God is the fruit whereof all other loves are but the beautiful and fleeting blossom, that the passions are yet sublimer objects of contemplation, when, subdued by the will, they become patience in suffering and perseverance in the upward path. But we cannot help thinking that if Shakspeare be the most comprehensive intellect, so Dante is the highest spiritual nature that has expressed itself in rhythmical form. . . He has shown us the way by which the country far beyond the stars may be reached, may become the habitual dwelling-place and fortress of our nature, instead of being the object of its vague aspiration in moments of indolence. At the Round Table of King Arthur there was left always one seat empty for him who should accomplish the adventure of the Holy Grail. It was called the perilous seat, because of the dangers he must encounter who would win it. In the company of the epic poets there was a place left for whoever should embody the Christian idea of a triumphant life, outwardly all defeat, inwardly victorious, who should make us partakers of the cup of sorrow, in which all are communicants with Christ. He who should do this would indeed achieve the perilous seat, for he must combine poetry with doctrine in such cunning wise that the one lose not its beauty nor the other its severity—and Dante has done it. As he takes possession of it we seem to hear the cry he himself heard when Virgil rejoined the company of great singers, "All honour to the loftiest of poets."

"THE MOST IMPRESSIVE FIGURE IN OUR LITERARY HISTORY."

Mr. Lowell has written concerning another poet, who, if not exactly a "world-poet" like Homer, Dante, and Shakspeare, falls little short of their eminence. His essay on "Milton" would be remarkable if it contained nothing besides the clever banter with which he dismisses Mr. Masson's prolix and pretentious biography. But—like everything else which fell from his pen—it also contains passages of rare beauty. The following paragraph is interesting as coming from one who was himself at heart a Puritan during the greater portion of his life:—

Puritanism has left an abiding mark in politics and religion, but its great monuments are the prose of Bunyan and the verse of Milton. It is a high inspiration to be the neighbour of great events: to have been a partaker in them, and to have seen noble purposes by their own self-confidence become the very means of ignoble ends, if it do not wholly depress, may kindle a passion of regret deepening the song which dares not tell the reason of its sorrow. The grand loneliness of Milton in his latter years, while it makes him the most impressive figure in our literary history, is reflected also in his maturer poems by a sublime independence of human sympathy, like that with which the mountains fascinate and rebuff us. But it is idle to talk of the loneliness of one the habitual companions of whose mind were the Past and Future. I always seem to see him leaning in his blindness a hand on the shoulder of each, sure that the one will guard the song which the other had inspired.

POPE, SPENSER, AND WORDSWORTH.

Pope, Spenser, and Wordsworth are among the other English writers with whom Mr. Lowell has dealt (*vide* "Literary Essays, vol. iv.). Of Pope he very pertinently observes that "in his own province he still stands unapproachably alone."

If (he continues) to be the greatest satirist of individual men, rather than of human nature, if to be the highest expression which the life of the Court and the ball-room has ever found in verse, if to have added more phrases to our language than any other but Shakspeare, if to have charmed four generations make a man a great poet—then he is one. He was the chief founder of an artificial style of writing, which in his hands was living and powerful, because he used it to express artificial modes of thinking and an artificial state of society. Measured by any high standard of imagination, he will be found wanting: tried by any test of wit, he is unrivalled.

And of Edmund Spenser:—

No man can read the "Faery Queen" and be anything but the better for it. Through that rude age when Maids of Honour drank beer for breakfast and Hamlet could say a gross thing to Ophelia, he passes serenely abstracted and high, the Don Quixote of poets. Whoever can endure unmixed delight, whoever can tolerate music and painting and poetry all in one, whoever wishes to be rid of thought and to let the busy anvils of the brain be silent for a time, let him read the "Faery Queen." There is the land of pure heart's ease, where no ache or sorrow of spirit can enter.

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He has won for himself a secure immortality by a depth of intuition which makes only the best minds at their best hours worthy or indeed capable of his companionship, and by a homely sincerity of human sympathy which reaches the humblest heart. Our language owes him gratitude for the habitual purity and abstinence of his style, and we who speak it, for having emboldened us to take delight in simple things, and to trust ourselves to our own instincts. And he hath his reward. It needs not to bid—

Renowned Spenser, lie a thought more nigh
To learned Chaucer, and rare Beaumont lie
A little nearer Spenser;

for there is no fear of crowding in that little society with whom he is now enrolled as fifth in the succession of the great English poets.

* "The Writings of James Russell Lowell." In Ten Volumes. (London Macmillan and Co.) Price 5s. per volume.

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part as a contingent side by side with Continental armies; whether it is merely to provide reinforcements for India, or whether it is to co-operate with the Navy in aggressive warfare.

It is difficult, no doubt, to arrive at any certainty with regard to these points, or to organize a programme which circumstances may not render useless. But we have hitherto made no effort whatever to arrive at even a proximate solution of the question. Nothing is more striking in the report of Lord Hartington's Commission than the revelation of the total want of plan and preparation for effective action in the event of war. We have no officer at the head of a general staff; we have no scheme of combined operations between the two services; and we have no one with sufficient authority to formulate and give effect to such a scheme.

In the words of the report of Lord Hartington's Commission, "There does not appear to exist sufficient provision by either service for the wants of the other; little or no attempt has ever been made to establish settled and regular inter-communication or relations between the services; no combined plan of operations for the defence of the Empire in any given contingency has ever been worked out or decided upon."

It is a truism to say, that as long as we do not know the purpose for which the Army is maintained, it is impossible to efficiently prepare it for the execution of its duty. It need hardly be said that the recommendations of Lord Hartington's Commission have remained, as the recommendations of most Army Commissions do, an absolute dead letter.

WAR TRAINING.

The next point to which I wish to draw attention is the utter want of effective battle training in our home Army. The one purpose for which an army is required is to achieve success in war. To make success possible two things are necessary. In the first place the soldier must have physical courage, in the second place he must be trained in peace to do that which he is likely to be called upon to do in war. That our soldiers possess physical courage I assume, and that they are as cheerful and good-humoured young fellows as one could wish to meet I readily certify. But that our officers and men are trained to do in peace what they may be called upon to do in war I deny.

Let me be precise. One of the most important and difficult duties of an officer in modern times is the handling of large bodies of men of all arms. One of the chief lessons which the regimental officers have to learn is how to accommodate the tactical movements of small bodies with the general advance of a large force in action.

Scarcely less important is the [acquaintance which officers of all grades have to acquire, in practice as well as in theory, of the art of providing for the transport and supply of large bodies of men on the march and in the bivouac. By practice alone can men of all arms learn to work together—infantry to protect their own cavalry or resist that of the enemy, artillery to cover the advance of infantry, and infantry to take advantage of the protection of the guns. These and a hundred other matters essential in time of war can only be familiar to the soldier who has been accustomed to them in time of peace.

But our home Army has no opportunity of learning any of these things. Aldershot is our principal military centre; the First Army Corps has its headquarters there; and the field state on the occasion of a Royal review held there this summer was only 10,094 men of all arms present.

The autumn manoeuvres which have been recently revived afford the only opportunity of manoeuvring a force larger than a brigade, and yet this year the total number of men of all arms was under 14,000 nominally, and practically under 10,000. This diminutive army was divided on almost every occasion into two, and usually into four portions.

Brigade drill is useful, but the one opportunity of the year ought not to be wasted in an exercise which should be the almost daily work of the battalions.

If any proof were needed of the necessity of assembling large bodies of troops for exercise it was afforded by the operations of the troops at Petersfield. The extraordinary neglect of what are usually considered the common precautions taken by an army in the field, the want of acquaintance with outpost duty, the inefficiency of the cavalry scouting, the vagaries of the signallers, were apparent to the most casual observer, and did not escape the criticism of the General directing the operations. The want of practice everywhere produced its natural results.

We have, according to the returns, some 400,000 infantry, 11,000 regular cavalry, and 22,000 regular artillerymen in the United Kingdom. It should be easy, therefore, to provide an officer with a command exceeding 5,000 men, with its complement of a single weak squadron of cavalry and a feeble contingent of 16 guns, which is all that were allotted to the Generals on either side at East and West Meon.

Again, with respect to the artillery. The great maxim of modern artillery warfare is that guns should be brought up to the front at any cost and used in mass against the enemy. Now, bringing guns up in mass and concentrating their fire at a moment's notice is a very highly specialized art and one which cannot be learnt without instruction and practice. Our gunners never get a chance of such practice. During the manoeuvres the greatest number of guns brought into line together was 16. Sixteen guns is less than three batteries, and to learn to manoeuvre three batteries is not an adequate preparation for modern war.

But it must not be forgotten that even the opportunity afforded to these selected batteries is quite exceptional. The usual war training of our home batteries consists in taking a battery of six guns, deducting two guns for which there are no available horses, halving the remainder, and massing two guns and a wagon on the top of a hill.

At Woolwich, our only artillery centre, the Common is closed for manoeuvring during six months in the year, and on every wet day, during the remainder. A small plot at Plumstead is the only exercise ground then available, and here four or five batteries may be seen threading their way through each other in a sort of military "grand chain."

But there is a still more important lesson which our gunners ought to learn and do not learn; they ought to learn how to shoot. This seems elementary, and in fact is so; but the public ought to know that we have only one single artillery range in the whole of England, that at Okehampton. This is scarcely conceivable, but it is nevertheless a fact. The only other range, that at Hay, has been closed, and a substitute is being arranged for in the extreme West of Ireland; but in England we have but one single artillery range for the instruction of all our batteries.

It is true that a certain number of batteries send their men and a portion of their guns to Shoeburyness from time to time, and there fire away their allowance of shell across the sands. It may be said that this is better than nothing, but it is doubtful whether, in fact, such practice does not do more harm than good. The instruction gained by firing shrapnel across the sand is absolutely useless save in so far as it accustoms the men to the noise of the guns. In some respects it is worse than useless, for it is misleading. The varied conditions of an ordinary stretch of country are absent, and the lessons in observations of bursts, effect of shell, judging distance, value of position, and value of cover, both for attack and defence, &c., are never learnt. To try to teach the practical use of artillery on a level shore is like trying to teach the practice of seamanship on the Round Pond.

It is scarcely pretended that our cavalry receives any real training for war until it gets to India. We have 17 regiments on the home Establishment, and most of these are mere skeleton regiments. They are scattered through the large towns, in many cases the four squadrons are in four different places. Small as is the number of men, the number of horses is smaller still. One horse for every two men is a common average. It is hardly probable that, under such cir-

cumstances, our cavalry should learn much of its duties in respect of movement in mass, scouting, and reconnoissance, or action in combination with other arms.

The very severe criticisms which were made by *The Times'* correspondent and others upon the cavalry manoeuvres on the Wiltshire downs last year tend to show that the lack of instruction has had its natural consequence. Indeed, I think that, in comparison with the organized cavalry forces of other nations, our cavalry can hardly be taken quite seriously.

With regard to the infantry, the lack of battle training is quite as conspicuous as in the case of the other arms. With the exception of the small forces which are collected at Aldershot and the Curragh, and of the Guards in London, there is no force of infantry in the United Kingdom sufficiently numerous to afford opportunities to a commanding officer to learn even an elementary lesson in the handling of masses. I know of one battalion which for a period of ten years has not manoeuvred with a force of all arms. I know of one which had not done so till the manoeuvres of this year, and these are but extreme examples of the experience of nearly half the battalions on the home Establishment. Nay more, such is the condition in which many of our battalions are maintained, and such are the duties to which they are assigned that scores of battalions have not even the opportunity of carrying out the ordinary routine of regimental exercise.

I have before me the account of a very distinguished regiment which is in the habit of performing its battalion drill with the aid of ropes, a man at each end extending the rope and thereby representing a company.

Battalion after battalion I could name in which the fact that an officer inspects a company of two men only on parade is too ordinary to excite remark. Under such conditions as these it is impossible to maintain the proper spirit among either officers or men. Regimental duty becomes a farce, and instruction has practically to be abandoned.

These are only examples of the defects in our present system in respect of battle training. Throughout the whole of our home Army the same thing is to be found, neither officers nor men are trained to do in peace what they will be called upon to do in war.

RECRUITS AND RECRUITING.

I have assumed so far that we have an army which is capable of receiving such training with profit. I shall now, however, proceed to examine the material of which our home Army is composed, and shall show that it is so unsatisfactory that there are grave doubts whether, even under the most favourable conditions as to training, we can expect to get much value from it.

We spend upon our home Army no less than 20 millions annually. For this we have a right to expect something very perfect in quality. Let us see how far the facts realize our natural expectations, and note what is the effect of our present system upon the all-important question of recruiting.

At the very outset we are confronted by a serious difficulty. Our Army is recruited by voluntary service, and the profession of arms is only one among many other professions competing for the favour of the rising generation of young men.

Naturally, we hope to obtain good men for the Army, and yet to this profession we deliberately attach a condition unknown to any other calling the wide world through; a condition which our common-sense tells us must inevitably condemn it in the eyes of every person who has intelligence enough to pay any regard to his own future.

What other profession is there in the world to which a man is invited to devote himself at the age of 18 with the certainty of being discarded without present advantage or future prospect at the age of 24?

This is a consideration, the importance of which cannot be overrated.

It is idle to draw analogies between our Army and armies raised by conscription. In Germany or in

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France, the whole of the population passes through the ranks and starts on life with a uniform probation of three years' service. With us it is different; the soldier, cut adrift from his profession at the age of 24, has to take his chance as a member of a civil population in which all his contemporaries have already got the start of him. He has learnt a little of his own trade, but none of any other. I am aware that a certain number of discharged soldiers of good character do find employment. As the result of recent inquiries it has been ascertained that some 39,000 of the Reserve men, out of a total of 59,000, are actually in employment. I am given to understand that the authorities are not only surprised but delighted at what they consider a totally unexpected piece of good news.

For my part I cannot share their satisfaction. To me it seems little short of a scandal that no less than 20,000 men, or one in three, of the whole reserve should be waifs and strays through the country. Nor can the officials plead that they do not know the particulars with regard to the men who are not returned as being in employment. It is their business to know the whereabouts and occupation of every Reserve man, and I presume they do know it. Moreover, with regard to those men who are actually in employment it must be noted that their employment, whatever its nature, comes only as a matter of chance or favour, and can in no way be anticipated by the recruits on enlistment. It is strange if such a system as this attracts good men; and it rests with the friends of the system to give some reason why it should do so. I prefer to believe the laws of commonsense operate here as elsewhere; that we cannot get a good article on such terms. I propose to show that we do not get one.

Again, it is generally admitted that in the open market a good article commands a good price. A private in the Buffs in 1891 is offered nominally exactly the same sum that was offered to a private in the Buffs in 1688—viz., one shilling per day. I daresay the soldier of William III. never got his money. I am certain that the soldier of Queen Victoria never does.

Sixpence a day, which is more than the private actually gets, with lodging, partial board, and some assistance towards the purchase of his clothing, will not buy a good man in the open market.

We can pay a man in several ways; we can pay him in cash, in prestige, in present comfort, or in prospective advantage.

Sixpence a day is not a cash inducement. The prestige of belonging to the service is not to be underrated. In the form of regimental feeling it is the one thing which keeps the Army together, but it has a hard fight against the impressions which the discharged soldier, turned adrift at 24, spreads throughout the country. Comfort is not the portion of a private in an Aldershot hut or in cantonment on the plains of India. The prospects of the private soldier, as far as any Government provision is concerned, are an aggravated form of pauperism. It is plain therefore that the inducement which we offer to the soldier to give his services to the country is hardly calculated to supply us with a very valuable type of recruit.

Nor can I quit this branch of the subject without some reference to the misleading and dishonest notices which are put forth by authority to attract men into the ranks. That these notices are misleading and dishonest is not denied; indeed, I believe I am right in saying that their withdrawal has already been decided upon in principle, and that they are only circulated because there happens to be a large stock of the printed placards on hand. So dear are paper and print, so cheap is the nation's honour!

For what we offer it would hardly be reasonable to expect to get very much. Let us see what it is that we really do get. We enlisted last year 31,407 recruits for all branches of the service; of these 19,296 were for the infantry of the line. Speaking of the recruits as a whole the late Inspector-General of Recruiting writes as follows:—

"The physique of the recruit being admittedly of the first importance, this report would be incomplete without some allusion to the number of immature lads barely 18 years of age, and in many cases probably under that age, whose services, for the two years past, have necessarily been accepted to repair the normal waste."

It is not wonderful that General Roche should speak with regret of the men who have passed into the service of late. The minimum age is supposed to be 18, but it is notorious that hundreds, and probably thousands, of recruits are far younger than this.

The standard height is 5ft. 4in., the standard chest measurement 33in., but even these lilliputian proportions are not attainable, and permissions have been freely given to take "special enlistments" of boys who are in every respect under the standard, the special enlistments in certain battalions amounting to 50 per cent. of the total number of recruits. With regard to these enlistments it may be said that if the plan followed in the Navy were adopted in the Army no great harm would be done. Boys would be enlisted and rated as boys, fed as boys, and paid as boys until they became men. An ordinary seaman serves his time from the commencement of his seaman's rating, and the plan is a good one, for it enables the country to get the recruits at the time when they most readily enter. As a matter of commonsense the recruit should be entered and maintained as an immature soldier till he reach the age of 21, and he should count his service from the day that he attains that age.

The official theory with regard to the boys enlisted in the Army is that, when well fed and trained, they eventually become good men. Many of them, in fact, do so, though, on the other hand, a very large number, being undersized or congenitally infirm, never can, and never do, make good soldiers.

But, admitting the official contention, what is the result?

By a humane regulation, which, however, has lately been most unwisely infringed, recruits are not allowed to go to India until they have reached the age of 20. At that age they are shipped off and, as a rule, remain in India for the rest of their term of service with the colours. The recruits, as a rule, spend the greater part of their first year of service in India in a sanatorium. Then, if they do not die, they improve. Many of them become very fine soldiers, and some of the regiments on their return from India are magnificent. But for what purpose do the men return? Simply to be turned over into the Reserve and relegated to civil life; no sooner have we made a soldier than we discard his services. Nay, more, having got the man into the service by a fraud we get him out of it by a bribe. Among all the follies and failures of the present system, none is more glaring than the arrangement by which the soldier at the end of his first term is induced to leave the service by a bribe of £21 under the name of deferred pay. I believe there is not an officer or soldier in the Army who does not long for the abolition of deferred pay. The men do not enlist because of it, and they only realize that they are entitled to it as the end of their term approaches. Too small a sum to enable a man to embark with success in any industry, it is amply sufficient to induce him in most cases to give up his profession in order to enjoy the immediate advantages that it offers for a few days.

Your obedient servant,
H. O. ARNOLD-FORSTER.

To-day we publish the third of a series of letters on "The Administration of the War Office," by "VERUS," and the second of another series on "Our Home Army," by Mr. ARNOLD-FORSTER. These two series are the complements of one another, and present the same subject from different standpoints. The first accepts the broad admitted facts concerning the costliness and inefficiency of the British Army, and forcibly exposes the radical defects of organization which place our military system in glaring contrast with that of every European nation that maintains an army at all. The second begins with actual defects, deals with them in detail, and, by a cumulative process, constructs an indictment which bids fair to be tremendous against the system under which such bungling becomes possible. The first, by a masterly analysis, shows us causes in operation which are fully adequate to produce and explain the most startling results; the second shows us with equal plainness results individually disgraceful, and forming collectively a crushing practical condemnation of the entire system already deductively proved rotten. We would earnestly entreat serious men everywhere to give their most serious attention to this double demonstration of the alarming and dangerous condition of the British Army. For that army this country pays in round numbers the enormous sum of twenty millions sterling. We shall not attempt any comparison with the cost of other armies, because such a comparison, in order to be worth anything, must take account of many important differences in the conditions obtaining here and abroad. But it will scarcely be disputed that twenty millions sterling is a very large sum, even for a wealthy country like this, or that, when we spend it upon our home Army, we have a right to expect in return a defensive force unexceptionable in point of quality, however limited in quantity. Be it remembered that it is practically the home Army on which this huge sum is spent. India pays, and in the opinion of many pays heavily, for all the military services she gets from the War Office. The whole cost of the British Army in India falls upon the finances of India, so that in considering what we get for our money we must exclude thoughts of general Imperial defence. We pay our twenty millions for home defence, and for a certain share of the defence of the colonies. It is really well worth the while of the British public to take an active, intelligent, and sustained interest in the disbursement of this immense sum. Either a second line of defence is wanted or it is not. If we can do without one we had far better devote the money to the reinforcement of the Navy, which probably could be made powerful enough by that means to enable us to sweep away the whole military establishment. If we must have an Army, it surely ought to be one of the main and most constant preoccupations of the taxpayer to see that we have it in thorough efficiency. As things stand we spend twenty millions a year upon an assumed necessary and fail to procure it. Stranger still, a people which boasts of being practical tamely acquiesces year after year in the costly absence of its necessary defence.

Public apathy is due in part to a misapprehension which is undoubtedly founded upon some painful experience. It is generally assumed that any demand for Army reform means in reality a demand for increased expenditure; and it must be confessed that a spasmodic and occasional demand, rising perhaps into actual panic, results in nothing but increased waste of public money. MR. ARNOLD-FORSTER has tersely described the difference between the two defensive services by saying that the charge made some time ago against the Navy, and amply justified by the subsequent action of the Admiralty, was a charge of deficiency; while the charge now made against the Army is a charge of inefficiency. An occasional public interference is adequate to remedy mere deficiency, because there is nothing in question beyond the expansion or stimulation of an efficient organization. But an organization which is radically bad and inefficient cannot be reformed in a day. That business demands steady and continuing pressure, intelligently directed to the desired end. It is pressure of this kind which we earnestly desire to see the public apply. There is no demand for more money, nor do any of the reforms indicated by either of our correspondents involve the expenditure of an additional penny. On the contrary, it is absolutely certain that under a rational organization we should have a far better Army for less money than we now pay, or an Army at once better and larger for the same money. On the other hand, the public may be well assured that largely increased expenditure without any corresponding advantage will infallibly result sooner or later from its persistence in its present apathy. Sooner or later, a country unprepared for a struggle will find itself in circumstances of peril, and will frantically call for security at any price. That kind of interference in military affairs is quite inevitable at recurring intervals so long as things are habitually mismanaged in the present fashion. Every such interference leads directly to the inflation and extension of the inefficient system it finds in operation; but rational investigation in time of peace, followed by steady, intelligent pressure upon Government for the reform of the system itself, leads to economy as well as to efficiency, to reduction of the total cost as well as to better value for each pound expended. That is the kind of movement in which we invite the British public to join, a movement to give reality to a defensive force which at present is an elaborate sham, to obtain value for an enormous sum now squandered by mismanagement, and to avert further demands upon its purse otherwise certain to be made at the first unlucky turn of fortune's wheel.

Another misapprehension which probably accounts for much public apathy is the notion, carefully fostered by military authorities, that army management is something far too difficult and recondite to be touched by civilians. LORD RANDOLPH CHURCHILL, who has a great natural faculty for seizing upon specious though superficial opinions, gave expression to this idea when he maintained that nothing can be done unless the supreme military authority is a man of "military training, military experience, and military eminence." Since in this country

the supreme authority must rest with a member of a Cabinet which is a committee of the House of Commons, the theory under discussion necessarily leads to the conclusion that until the House of Commons is abolished, this country cannot have an efficient army. Though not, perhaps, explicitly formulated, this despairing view of the situation is rather widely held. Happily it rests upon no firmer foundation than a confusion of thought. There is nothing whatever to hinder a civilian from organizing and managing an efficient army, and there are at any given moment a score of men in the City of London who could carry out the work with perfect ease. Probably it has never occurred to anybody to hold that the chairman of the London and North-Western Railway must be a trained, experienced, and eminent engineer. Why not? The London and North-Western Railway is a vast engineering business, the end of which is transport, just as an army is a great military machine, the end of which is defence. Its chairman is not expected to know how to pack a piston, lay a rail, test the tensile strength of an ingot of steel, work out the dimensions of a viaduct, judge the value of a lubricant, or calculate the terms of a self-supporting insurance scheme for his workmen. It is not his business to do all or any of these things, but it is his business so to organize the whole concern, that men are found who can do these things, that they fail to do them at their peril, and that their perfect co-operation works out a result satisfactory to the shareholders. It is exactly the same with an army. Appropriate workmen have to be found or trained for every department, but the finding, training, and organizing is a matter of business. Its head ought to have exactly the qualities required in the manager of any great manufacturing business, qualities which abound in this country everywhere but in the public service. Such a head would obviously organize the Army on business principles. He would select and promote men with reference to their fitness for the work in hand. He would make every one, from the highest to the lowest, feel himself responsible for the due discharge of his functions and liable to sharp punishment for failure. There is no mystery about the matter, which is found simple enough by other nations. We may put Germany aside as autocratically governed; but what is to be said of France, where, under advanced democratic institutions, M. DE FREYCINET, a civilian, has achieved results that excite the admiration of military critics? We have recently given full and minute accounts of the German and French Armies, from which it is abundantly plain that, with an Emperor or without, under autocracy or democracy, the problems of military organization are essentially the same, and are found soluble by nations certainly not our superiors in business faculty. The difference is that they bring their business faculty into play while we do not.

OUR HOME ARMY.

II.

TO THE EDITOR OF THE TIMES.

OUR INFANTRY.

Sir,—In my last letter I spoke of the recruits only, but I pass by an easy transition to the Home Army, for, as a matter of fact, the Home Army is composed of these very recruits, and of very little else. There need be no mystery about the matter. It is a mere question of figures.

There are 67,386 infantry in the United Kingdom. We enlisted this year 20,517 recruits for the infantry. The greater part of these are 18 years or under at the date of enlistment. Till he is 20 the recruit is not allowed to leave for India. Hence it is obvious that in two years' time there is an accumulation at home of something like 40,000 infantry soldiers under 20. These figures are subject to some deduction owing to the fact that the more advanced recruits are often sent to the colonial and Mediterranean garrisons; moreover, of course, there is always a certain number of recruits who are over 18 at the time of enlistment. On the other hand, a very large number of recruits are, as has been pointed out, under that age, and, in the case of the special enlistments, officially recognized as being so. Hence it is reasonable to anticipate that the number of young soldiers must be extraordinarily large. An examination of the facts will show that the deduction is correct.

Before, however, proceeding to examine the actual condition of our regiments, batteries, and squadrons, I must say frankly that if our only object in keeping up an army be to supply two Army Corps in India with an annual contingent of recruits, I will admit that our present system fulfils our ideal.

According to the official returns, we get 30,000 men a year who are needed to maintain, at home and abroad, an army amounting to 200,000 men. For the pay and maintenance of a portion of this force (105,000 men) the country pays a sum of nearly 20 millions sterling annually and believes that in return it gets an army.

It would be truer to say that 20 millions are expended upon the performance of an operation which would be as well, perhaps better, performed by any respectable registry office or labour contractor.

With trifling exceptions the whole organization of the home establishment is devoted to the task of shipping out some ten thousand young men every year to India. These men are, as a rule, neither trained nor disciplined. During the greater part of their service the whole cost of their maintenance is paid for by the Indian Government. The very clothes they wear on the journey out are (a most monstrous injustice) paid for by the men themselves.

At enormous expense and with infinite labour, a number of immature boys are collected and sent to the various regiments. As these boys attain, or are supposed to attain, the age of 20, they are shipped off to form the Army upon which we rely for the defence of India.

The residue, who are unfit for this purpose, are kept at home, and are spoken of as our Home Army. But they are not an army, nor can they possibly be made into one.

It is supposed in official circles that we possess two Army Corps immediately available and prepared in all particulars, and there is even a talk of the existence of a third Corps.

If we were to pay the slightest attention to official returns, we might actually persuade ourselves that these pretensions might be made good. But the official view is certainly not shared by officers actually serving in the Army. I have never known an officer who believed that we could really put two Army Corps in the field. I know many who positively affirm that without making up every regiment in the home establishment we could not mobilize one. It is necessary to go behind the returns to understand how little reference they have to the actual facts. Let us see what would be the real result of mobilization.

THE OFFICIAL VIEW.

The official view of the situation is that the country, in addition to the troops in India, possesses two Army Corps, fully equipped and prepared in every respect to take the field for foreign service.

This unhappy delusion pervades all our military arrangements, and, in accordance with the theory, certain battalions, batteries, and regiments of cavalry are set apart as forming a portion of the first or second Army Corps, as the case may be.

In proceeding to examine the actual as well as the theoretical constitution of these two Army Corps it will be well to begin with an inquiry into the condition of the most important arm—viz., the infantry. To each of the first two Army Corps is assigned a certain number of battalions, which take their turns upon the roster for service, and which are kept up to a nominal strength of from 800 to 1,100 men. Their numbers are recorded in official documents, and the public believes that if it has nothing else for its money, it at least possesses its two Army Corps.

And here I ask to be pardoned for a short digression upon the subject of Army returns. There is a large pit in Aldershot camp labelled "For waste paper only." If this receptacle were the bottomless pit itself, it would be inadequate to contain the mass of official returns which might with justice be consigned to it on the ground that, as far as any trustworthy and straightforward statement of fact is concerned, they are fairly entitled to rank as waste paper. So far as I have been able to judge, nothing is more deceptive and illusory than Army returns, with the single exception of Ministerial speeches on the Army.

SOME SAMPLE BATTALIONS.

But to return to our infantry battalions. Here are some remarkable facts with regard to the battalions upon which the country at this moment relies, and which form part of the first Army Corps or are upon the roster for foreign service at an early date. The cases given are not selected instances, but are samples taken absolutely at random, and fairly represent the bulk.

Number One is a battalion in the first Army Corps. The actual strength of the battalion is 914, 123 short of its full strength. More than half the entire battalion, 458 out of 914, are unfit for foreign service, and are disqualified by the existing rules from being sent to India as being under age and on other grounds. Considerably more than half the battalion, 493 men, are under 12 months' service, and no less than 168 of the recruits are "special enlistments," children who are actually below the insignificant standard which we are supposed to maintain. Before the end of this year 190 men will be sent away in a draft: these will be men of 20 years and upwards, and their places will be taken by a corresponding number of boys.

Now let us see what would be the real condition of this first Army Corps battalion if it were ordered to India. Instead of providing 1,037 it would be able to furnish 266 qualified men, leaving behind no less than 648 of the soldiers who now help to swell the official returns and to impose upon the British public.

Here is the case of another battalion, taken also at random. Like the previous one it stands on the first Army Corps list and numbers 1,040 men of all ranks. A short time ago this regiment was asked to furnish a draft of 200 men for service in India; it was not equal to the demand, there were not 200 men in the regiment fit to go, and the draft was reduced to 180. Eight hundred and twenty men in the battalion are at this moment disqualified for Indian service, and, though the fact seems scarcely credible, 430 of the number are special enlistments. The regiment has no less than 800 men under one year's service. Surely it is hard to conceive a more complete fraud than is implied by such a case as this.

I will add one more example, taken, like the others, at random. This time the figures relate to a battalion not in the first or second Army Corps.

The war strength of the regiment is 1,037 (exclusive of officers), the establishment at which it is supposed

to be maintained is 800, its actual strength is 600, and of this total 296 are under 20 years of age. As soon as the next draft of 140 men leaves at the end of the year, the battalion will either be reduced to 460 men, or will be reinforced by a contingent of 140 recruits, giving a total of 436 unfit soldiers and 164 more or less capable ones. It need hardly be said that such a thing as a parade of 300 men is utterly unknown in such a regiment as this; indeed, to see 100 men on parade together is a spectacle hardly ever witnessed. When I add that the eight companies into which this little band is divided are spread over four detachments in three different counties, it is easy to imagine that regimental duty is carried on in a very singular fashion; and this case is only one of a score as bad or worse.

And as if under normal conditions the state of the battalions were not sufficiently unsatisfactory, it has been thought wise to still further deplete their scanty stock of efficient men to form that peculiar body known as the "Mounted Infantry." At the present moment there is at Aldershot a force of 1,200 of these men. There is no reason to grumble at the existence of any efficient body within the Army if it be raised and maintained in a proper way. But our mounted infantry are obtained by the illicit process of robbing the infantry battalions of their best men. The battalions are asked to furnish men of good character, full age, marksmen, and riders. They do furnish them, and are thus deprived of the very men whom it is most desirable they should retain.

I might indefinitely prolong this analysis of the actual, as opposed to the theoretical, condition of our battalions, but space does not permit. The whole of the information on this subject is to be found in a return which I am not at liberty to quote. It is marked "private and confidential," and is one of those mysteries which is revealed to every one except the person whom it chiefly concerns—viz., the British taxpayer. I sincerely trust that the return will shortly be moved for in Parliament and its production insisted upon.

THE CHARACTER OF THE REGIMENTS.

But it will be said that, though the men are young, they are, nevertheless, equal to any soldiers in the world. This is the opinion expressed by the Secretary of State for War; but as far as I can ascertain it is not shared by any other person connected with the service or by any independent observer. It is possible that the men may be able to fight, though I would point out that it is a common delusion to suppose that short-service regiments taken from the home establishment have ever taken part in a campaign. But that they are not the kind of men with whom a campaign should be attempted I think is scarcely doubtful. Here is what a competent observer says of the troops as he saw them during the recent manoeuvres:—

"What I noted as I saw regiments marching out from Aldershot was sufficient to convince me—and I feel sure it would have convinced any one else—that regimental opinion is right and official opinion absolutely wrong. The men are not only youthful, they are, in fact little better than children. It is the height of folly to class such poor, puny boys as soldiers."

THE MARCHING POWER OF THE INFANTRY.

My own observation for what it is worth entirely confirms this unsatisfactory estimate. That our marching regiments cannot march is certain. Indeed, why should they? It may surprise some people to learn that "marching" is not a part of the routine of the Aldershot division; it is practised in a mild way at some of the detached stations, where as many men as can be got together are usually taken for a walk of ten miles once a week during the winter. But the Aldershot battalions do not learn to march and cannot march. I have walked up one of the formidable Hampshire mountains with an infantry regiment bearing an historic name, and I have seen the whole battalion lie down to rest, by word of command, seven times before reaching the top of that tremendous acclivity; and these men were carrying nothing but their rifles; they had neither packs nor ammunition.

Indeed, marching with packs is almost unknown in our service.

I know several regiments in which, after a ten-mile march, officers might be seen carrying one or, sometimes, two rifles, the property of men who were physically incapable of carrying their own arms. Now, this may be creditable to the officers, but it is not business. In one division alone the numbers reporting sick on 12 successive days were as follows:—22, 29, 118, 186, 220, 61, 118, 210, 22, 74, 72, and 62, or 1,231 out of a total of about 5,000 men. In one battalion, during a march of 13 miles, more than 100 men reported sick. But there is no need to pursue this matter further. The battalions cannot march, and the regimental officers know it. There are brilliant exceptions, but the rule is as I have stated it. I know that it is contended by the authorities that in case of war all these incapables will be replaced by men from the Reserve. I shall have more to say about the Reserve later on. Meanwhile I would ask—Was ever such a system heard of as ours, in which the Reserve is the first line, and the first line is relied upon, if it ever become capable of taking the field at all, to ultimately become the Reserve?

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It hardly needs any words of mine to point out the utter absurdity of allowing our tiny force of manoeuvre or working-class insurance co-operative societies to think of proposing a compulsory friendly societies that at present renders it of Chamberlain's acknowledgment, it is the jealousy of point of the highest importance, for, as Mr. managers of the friendly societies. This is a completed will be submitted to the leading from the actual point of view, and when thus thus scheme during the recess which is now being revised theory. A sub-committee has been forming a know that arithmetic will not bend to philan- people who see that great evils exist and do not and impracticable projects concocted by estimable service by sweeping out of the way many absurd inquiry into the subject, have done good who have joined him in instituting a systematic

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It hardly needs any words of mine to point out the utter absurdity of allowing our tiny force of cavalry to remain with an equipment of one horse to every two men, which is the proportion in most of our regiments. The authorities, I believe, have two excuses or explanations for this strange arrangement. In the first place, they say that foreign armies do not keep their cavalry on a war footing in this respect. They do not; but each of the Great Powers has a force of at least 30,000 men always mounted and equipped for immediate service. Provision is also made for the incomplete regiments by the Government remount establishments, where all preparations are made for suitably mounting every regiment as it is called upon for service. In the second place we are told that the War Office has registered a number of horses throughout the country which will be available in time of war. Very likely the horses will be available. But I ask any practical man what is likely to be the result of mounting half our cavalry on utterly untrained horses, and asking them to undertake at the outset of the campaign the additional duties of rough-riding and trainer.

I think there is something to be said in favour of the contention that we want a very small force of cavalry. The number of regiments is actually in excess of our nominal requirements. But if we do have cavalry regiments at all, why in the name of common sense cannot a rich country like this manage to keep the little force it has in a state of absolute perfection?

More might with advantage be said about the cavalry. Briefly I may say that, while nobody questions their horsemanship or their spirit, I cannot find, even among their most favourable critics, one who even pretends that they have mastered the rudiments of cavalry warfare as it is understood and practised in modern armies.

Your obedient servant,

H. O. ARNOLD FORSTER.

OUR HOME ARMY.*

III.

TO THE EDITOR OF THE TIMES.

THE ARTILLERY.

Sir,—In my last letter I examined the condition of our infantry battalions. We now come to the Artillery, and here the case is, perhaps, even more serious than with respect to the infantry. An infantry soldier can, perhaps, be improvised, but no amount of energy and good will can create a battery unless time be given. The official theory is that we have a full supply of artillery for two Army Corps, and possibly for a third.

It is worth while pausing for a moment to consider what an extraordinary confession of weakness is involved in the official contention, even supposing it to be correct. The total number of field batteries in the United Kingdom is as follows:—10 R. E. A., 41 R. A., and one mountain battery—total 52. I shall show later on what is the number and character of the guns with which these batteries are supplied, but for the moment I assume that they are fully equipped with six guns apiece. The number of batteries allotted to the first Army Corps is 15, to the second and third Army Corps, 14 batteries each; making a total of 43, which, with the four batteries allotted to the cavalry brigades, makes 47 out of our total number of 52. The surplus of five batteries represents the active horse and field artillery reserve for the British Empire. It may be noted in passing that 11 R. E. A. batteries are allotted under this scheme to the three Army Corps, but as a matter of fact there are only 10 batteries in the country.

It is worth noting that Roumania possesses 300 guns; Servia has 264, and is largely adding to the number. The Continental estimate of guns required to support infantry is from five to six per thousand men.

THE OFFICIAL VIEW OF THE FIELD ARTILLERY.

According to the official statement, we should have in the event of war 400,000 infantry of all sorts in the United Kingdom. To supply their needs, to reinforce the Army in India, to supply the colonial stations, and to replace the waste of war, we should have, according to the official statement, after supplying the requirements of three Army Corps, *five organized batteries*. No soldier, however, will require to be told that the official theory which credits us with artillery sufficient for three Army Corps has absolutely no relation whatever to the facts, and that in reality we could no more supply three Army Corps than we could supply 30.

THE ACTUAL CONDITION OF THE SERVICE BATTERIES.

The following details with regard to the actual condition of some of our service batteries will help to explain the discrepancy between theory and fact.

As in the case of the infantry battalions, my examples are taken absolutely at random, and are not selected with the object of making out a case.

The batteries on the first and second Army Corps are supposed to be kept up at a strength of from 100 to 157 men, the latter being the number to which the battery is made up when despatched to India. The process by which a battery is made up is perfectly well known at Aldershot and Woolwich, but unluckily the public does not fully realize it. When a battery is to be increased, a call is made upon the Woolwich depot and upon the nine other associated batteries of the group.

What the departing battery gains the other batteries naturally lose. This process can be carried out in peace time, when there is only one unit in question, but is obviously impracticable in time of war, when the whole ten batteries are despatched together. The public does not realize to what extent the process of clubbing together to form a complete battery is carried.

Here are the cases of two batteries at this moment stationed at one of our military centres. The one is somewhat above the average as regards its condition, the other, perhaps, a trifle below it. The first, a field

battery on the first Army Corps establishment, is about to leave for India. It has 151 officers and men, ten short of its establishment, but still on paper a good strength. Of these no fewer than 51 must be left behind, disqualified by the rules of the service for going to India.

This reduces the battery to 61 short of its establishment; 27 men are begged from the other batteries of the group, and the battery goes out to India 127 strong; 30 more men are picked up in India from a home-coming battery. Thus it will be seen that, even in this favourable case, one-third of the total has to be made up at the expense of other organized units.

The second case is that of a battery on the second Army Corps, which stands nominally at a strength of 151 non-commissioned officers and men. If the battery were ordered to India to-morrow, it would be compelled under the existing regulations to leave behind no fewer than 109 men, exclusive of those who happen to be in hospital. Add this number, say a dozen men, and we have 121 left behind out of a total of 151, leaving practically little more than the non-commissioned officers with the battery. The whole of the deficiency would have to be replaced from some other source. The grounds on which these men would have to be left behind are various, the largest number, 60 per cent. of the whole, would be disqualified by the very wise rule which forbids boys under 20 to be sent out to India. The others would be struck out on the ground that they were approaching the end of their service, or that they were about to retire with a pension.

I am aware that in the case of actual war peace rules will go to the wall, and, fit or unfit, we shall make use of whatever material we have, but meanwhile it is well that the public should realize what is the composition of those batteries which are represented as being of full strength and ready for immediate service.

THE BREAKING-UP OF BATTERIES.

And, if the mischief in time of war would be great, it is scarcely less serious in time of peace.

The detestable system of making one battery the depot for another is the most certain way to destroy the efficiency of half our force. I know of one battery which twice in the course of two years has been absolutely broken up and refilled; the commanding officer has twice seen all his best non-commissioned officers and every man whom he had succeeded in fanning and training taken away from him.

I know another battery which has been kept waiting three months when under orders for India, in order that a sufficient number of the boys composing it might turn their 20th birthday, and the War Office might then obey the letter of the law in despatching them.

The two batteries referred to above were on the strength of the first and second Army Corps respectively. Let us now take the case of a battery not in this perfect state of preparation. The establishment is 162 officers and men, the actual strength is 110. There are four guns, no wagons, and only 60 horses—110 being the establishment number. Of the 110 men in the battery 29 only, including the non-commissioned officers, are eligible for foreign service. To make the battery up to its full war strength 128 men are required.

AMMUNITION COLUMNS.

Happily, during the last year the plan of creating ammunition columns for the artillery, which had until then found favour with the War Office, has been abandoned. That masterpiece of constructive reform, by which 16 field batteries, educated in peace to perform their duties as gunners, were assigned in time of war to the duties of an ammunition train, has been laughed out of existence.

The four-gun batteries, which were pleasantly known in the service as "muck-train" batteries, have been given a reprieve. A more rational system of creating an ammunition train has been instituted—at least, in theory. Depôts have been established at certain centres—Aldershot, Weedon, Warley, Caterham,

Hounslow, and elsewhere—where wagons and stores sufficient for five ammunition columns have been collected and placed under the superintendence of warrant officers detailed for the purpose.

Each ammunition column is perfect, except it has no officers, and no men, and no horses. We are told that the officers will be forthcoming, that the reserves will furnish the men, and that the horses will be taken from those owners who have registered under Colonel Ravenhill's scheme.

Perhaps all this may come true, and we may some day see an ammunition train in fact, as well as on paper. But the importance of the question for the present argument lies in the fact that the service batteries have recently received orders to detail a certain number of their best men to join the ammunition columns. Here then is one more deduction which must be made from whatever force is available in the batteries which I have described. It is true, however, that this small drain of men need not necessarily recur after the columns have been once formed. But there is another and far more serious drain, which will inevitably be made upon the batteries in case of war.

THE NEEDS OF INDIA.

In order to clearly understand the position with regard to the artillery, it is necessary to extend our view, and to inquire what is the state of things in India.

The present arrangements in India are as follows:—In almost every important military station two batteries are posted. Of these, one is intended to go to the front in case of war. On mobilization, the equivalent of two Army Corps and a Reserve will be formed for active service, and the first battery in the station will join one of these bodies; the second will remain for the internal defence of India.

All Indian field or horse artillery batteries are supposed to be maintained at a full war strength. It is, however, officially estimated that on an average the batteries are at any given time some 20 men short of their full strength. I have some reason to believe that in this matter the Indian official view is somewhat too gloomy, and that, except at the close of the military year, the number of absentees would not be quite so large as this. But, if the estimate be accepted, it is calculated by the Indian officials that no less than 600 men will be required to fill up the vacancies in the field force. These men can only be taken from the batteries left behind, which will, therefore, in their turn, require a reinforcement of 1,200 men to fill up their ranks.

It has been reckoned by the same authorities that at least 1,000 men will be required to meet casualties in the artillery in the first year of war, and this number is beyond doubt far below what will really be needed. It is obvious that, even supposing we refrain from sending a single additional battery to India as a reinforcement on the outbreak of war, an immediate call will inevitably be made upon our home establishment of 2,200 men, equal to 17 batteries of 130 men each.

How far our establishment is capable of supplying such a demand, the figures I have given above will enable the public to judge.

OUR GUNS.

The total amount of the artillery reserve—horse, field, mountain, and garrison together—is 5,759 men, of which 3,000 may be assigned to the field artillery.

It is impossible to leave the subject of the artillery without some reference to the armament of the service batteries. I believe that it has been stated officially that we have a supply of the 12-pounder field gun sufficient for the Indian batteries and for two Army Corps at home.

It may be so, though I have no evidence of the fact. I believe that on inquiry it will turn out that, though the guns have really been sent, the carriages have not been sent, nor has the pattern for them been sealed. Of this, however, I have no certain knowledge. But the actual condition of the batteries in September of this year was as follows:—

"Times" Nov 27. 1891

"Times" Dec 3. 1891 59

	No. of 12-pr. Batteries.	12-pr. Batteries.	9-pr. Batteries.	7-pr. Mountain Batteries.	Total Batteries.
Home Establishment	4	41	8	1	52
India	0	27	23	9	52
Total Home and Abroad	4	68	32	10	114

Even admitting that somewhere or other the extra 12-pounder guns may exist, the fact remains that we have in the service at this moment in our Regular forces four entirely different types of field gun, each having a different charge and a different powder. Even at Aldershot, our chief military centre, there is at this moment a 13-pounder four-gun battery. But, assuming that we could at a pinch arm our small force of Regular artillery with a modern gun, it is obvious that, both in India and at home, the reserve from which the casualties of war must be supplied, or reinforcements provided, can only consist of a supply of mixed guns of types long ago discarded in every European army, and in theory abandoned even in our own. In one important class of gun we are wholly deficient—the heavy 30-pounder Howitzer, which has been adopted in France, Germany, Russia, and Switzerland, is unknown in our service save as an experimental gun. Those who have seen practice with their very formidable shells will realize the value of these accurate and destructive weapons.

THE GARRISON ARTILLERY.

I do not propose to dwell upon the condition of the garrison artillery. I read the evidence given before the recent Commission on the Royal Regiment; and I imagine that no sensible person could possibly differ from the main conclusion arrived at in the report—viz., that the garrison and field artillery must be definitely separated from one another. It is, indeed, difficult to understand why an inquiry was needed to arrive at such an obvious conclusion. To train an officer for five years in riding, manoeuvring, the handling of 12-pounders and gun teams, and then to transfer him to a fort armed with 12-inch guns on hydro-pneumatic carriages, where position-finding, the moving of heavy weights, the use of the electric light, and a score of kindred matters occupy his attention, is an obvious absurdity. Nor is the converse process more reasonable. Both plans have, however, hitherto been the rule of the service. At last it has been decided to separate the two branches, and the step is clearly a right one.

At present, however, the inducements held out to officers to elect for permanent service with the garrison branch have not proved sufficiently attractive, and the new corps has been filled up by "order," and not by voluntary transfer.

The promise of an extra £25 a year will not turn the scale. At the first, and I believe last, examination that has been held in connexion with the new Armaments Corps, no candidates presented themselves.

The new scheme will not succeed until the garrison service has prestige as well as pay attached to it. The first step in the right direction will be the appointment of a separate Headquarter Staff officer, and the confinement of promotion to the corps.

I have purposely said nothing as to the Volunteer field batteries so-called. Some are efficient for their purpose, a great number are not. I have not found any officer who shares the opinion of the Secretary of State, to the effect that these batteries can take the place of field artillery. If it be possible to form efficient field batteries out of 40-pounder guns often inadequately horsed, unprovided with wagons or train, served by gunners who have had no field training, then we are undoubtedly quite right and other nations are quite wrong; but I do not believe that in this matter there is any evidence in support of such a flattering conclusion.

THE MILITIA.

In writing of the Militia I ventured to speak of it as a "patent and recognized fraud." This is a strong phrase, but I think the public, when they learn the real state of the case, will agree that it is not too strong. The nominal establishment of the Militia is 135,722 men. Of this total there is an actual

enrolled strength of 113,163. At the last inspection there were absent with leave 4,887; 8,648 deserters failed to appear, making a total of 13,535 below the enrolled strength, or 36,094 below the establishment, and leaving a nominal force of all arms of 99,628. But even this small number is far in excess of the militiamen actually available. There is a force known as the "Militia Reserve." It will surprise the public to learn that, though the Army Reserve is a reserve for the Army, and the Naval Reserve a reserve for the Navy, the Militia Reserve is not a reserve for the Militia. The Militia Reserve men to the number of 30,245 are included in the total of all ranks present at inspection. Their training is of the very slightest description. But, whatever be the value of the Militia Reserve, it certainly cannot be counted as part of the Militia. We must therefore make another enormous deduction from the official figures, and from the nominal force of 99,628 we must subtract 30,245 men, leaving 69,383, or a deficiency of 66,349 below the establishment. This is equal to 122 battalions of 500 men each. Nor is this the end of the story. Last year no less than 12,646 men enlisted from the Militia into the Line. It would be obviously absurd to count these men as forming part of both services. Moreover, every Militia officer knows that two classes of men are largely represented in the ranks of their regiments. In the first place, there is a considerable number of Army Reserve men who enter the Militia in order to practise the only trade they have ever learnt and to keep out of the workhouse. In the second place, there is always a considerable contingent of men whose regular profession it is to transfer their services from one Militia battalion to another as often as they can do so without detection during the year. It is needless to point out that, while the first of these classes is credited both to the Army Reserve and to the Militia, the men composing the second are counted twice, thrice, or even four times in the total of the Militia.

It is obviously impossible to obtain statistics with regard to the numbers of these men; but when we remember that a year's enlistments in the Militia number 36,634 men, most of whom are utterly untrained, unacquainted with the use of their weapons, and not qualified in musketry, it will be easy to see that even the little remnant of 69,383 barely represents 20,000 effective soldiers.

In a tabular form the figures may be put thus:—

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Militia Reserve	30,245
Enlistments to Line	12,646
Recruits untrained	36,643
Army Reserve men and double enlistments, say	2,000
Net effectives at training	18,391

I contend, therefore, that, when I find a force which is from sixty to seventy thousand short of its nominal strength, which is without cavalry, field artillery, transport, or organization, in which half the men are untrained, and the officers in many cases merely en route to another service—namely, the Line—I am justified in speaking of it as a patent and recognized fraud. Such a force is the Militia at the present moment.

YEOMANRY.

I do not propose to say anything about the Yeomanry. In its present condition it is not a military force at all. The material in some of the regiments is excellent, and there is plenty of good will, but that is all.

Every officer who has had anything to do with the Yeomanry knows and says that until the force has been reorganized it is practically valueless. I cannot do better than quote the words of an authority who is both an experienced Yeomanry officer and a member of the present Government. This is what Mr. Walter Long, M.P., says:—

"The Court asked if the plaintiff's counsel would assist in February? Why not try the case there at the place where the ship arrived and where the cargo was discharged on which the question arose, and where the proper place of trial was Newcastle-on-Tyne, the port where the defendant, when the case was tried, was domiciled?"

OUR HOME ARMY.

IV.
TO THE EDITOR OF THE TIMES.
THE TERRITORIAL SYSTEM AND LINKED BATTALIONS.

Sir,—So far I have spoken only of the actual constitution of the battalions and batteries on the home establishment. It is now necessary to say a word as to the system upon which those battalions and batteries are raised and organized—a system which makes it impossible to hope for a better result during its continuance.

It is common knowledge that one of the great features of our present short service system is the so-called territorial organization of the infantry, coupled with the existence of "linked battalions."

There is no need to exaggerate the evils and absurdities of the territorial system. Rationally applied to a conscript army it is not only desirable, but essential. Fixed contingents can always be raised in each locality according to its population, and companies, battalions, and regiments are naturally and conveniently quartered in or near the districts from which they are drawn.

Applied to our voluntary Army, with its varying terms of home and foreign service, the territorial system is simply an absurdity. It is intended, in the first place, to further the creation of regimental feeling by associating men and officers with a particular locality. But, as a matter of fact, regimental feeling is the one quality which least of all others needed to be created in the British Army.

It will be seen shortly how little the new-fangled system has done to create regimental feeling where it did not exist before, and how much it has contributed to destroy it where it was already in existence.

The War Office piques itself upon the extent to which territorial recruiting has established itself in the Army.

THE VALUE OF THE TERRITORIAL TIE.

There is some reason to doubt whether, if the system were established in absolute perfection, the result would not be most unfortunate. The destruction of the 24th (Welsh Regiment) at Isandlwana and of the 66th (Berkshire) at Mafeking are sorrowful instances of the way in which the effect of a defeat may be concentrated upon a single district.

But, as a matter of fact, the success of the system from the point of view of its promoters is apparent only and not real.

To begin with, the absurdity of this system is made apparent by the fact that the one place in Her Majesty's dominions in which a territorial regiment is most unlikely to be found is its own territory. There are rare and accidental exceptions, but they are exceptions only.

Again, there are beyond doubt regiments in the British Army which are intimately attached to special districts by a sentiment and a tradition which existed long before Lord Cardwell's Act. But it is these very regiments that have gained least from the new system. That, in view of the fact that there is a recruiting depot in nearly every large centre of population in the kingdom, a large number of recruits should enlist in the district in which they live is not remarkable. It would be much more remarkable if the phenomenon were reversed. From the last return it appears that 50 per cent. of men serving were natives of the district to which their regiment was attached. But a glance at the details contained in the Inspector-General's report will show how utterly unimportant this circumstance is. No regiments owe more to local tradition than the Highland regiments. Owing to the unwise step which was taken when the number of these regiments was doubled, the supply of recruits for them is totally inadequate. Thus at Fort George only 60 men were enlisted; at Perth 275, of whom 122 only were for the territorial regiment having its headquarters there.

Again, in a county such as Cornwall, which has a very strong local feeling, the number of enlistments

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"There are only two courses open to this force. One is that they should be made more efficient than they are at the present time, and the other is that they should be abolished."

I see no reason whatever to differ from the conclusion arrived at by Mr. Long.

In a concluding letter I propose to refer to the linked battalion and territorial systems and to the Reserve.

Your obedient servant,
H. O. ARNOLD FORSTER.
9, Evelyn-gardens, S.W.

OUR HOME ARMY.

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But, as a matter of fact, the success of the system from the point of view of its promoters is apparent only and not real.

To begin with, the absurdity of this system is made apparent by the fact that the one place in her Majesty's dominions in which a territorial regiment is most unlikely to be found is its own territory. There are rare and accidental exceptions, but they are exceptions only.

Again, there are beyond doubt regiments in the British Army which are intimately attached to special districts by a sentiment and a tradition which existed long before Lord Cardwell's Act. But it is these very regiments that have gained least from the new system. That, in view of the fact that there is a recruiting depot in nearly every large centre of population in the kingdom, a large number of recruits should enlist in the district in which they live is not remarkable. It would be much more remarkable if the phenomenon were reversed. From the last return it appears that 50 per cent. of men serving were natives of the district to which their regiment was attached. But a glance at the details contained in the Inspector-General's report will show how utterly unimportant this circumstance is. No regiments owe more to local tradition than the Highland regiments. Owing to the unwise step which was taken when the number of these regiments was doubled, the supply of recruits for them is totally inadequate. Thus at Fort George only 60 men were enlisted; at Perth 275, of whom 122 only were for the territorial regiment having its headquarters there.

Again, in a county such as Cornwall, which has a very strong local feeling, the number of enlistments

for the local regiment was 40 only. At Lincoln it was but 49. As a matter of fact, many of the recruiting areas are not sufficiently populous to supply the requisite number of recruits. Some large counties, such as Sussex and Suffolk, do furnish enough recruits to the territorial battalions. But though splendid battalions, the 35th and the 12th were every whit as closely connected with their respective counties 20 years ago as they are now. Meanwhile, as might easily be supposed, it is from the great urban centres that the majority of the recruits comes.

Warwick, which includes the Birmingham district, furnished 1,200 recruits. Ashton, the centre of the dense population of Lancashire, supplies 941; Belfast, 679; Bury, 210.

A REMARKABLE EXAMPLE.

As an almost perfect example of this farce known as territorial recruiting I may quote the instance of a very well known regiment—the Argyll and Sutherland Highlanders (91st and 93d). There is only one part of her Majesty's dominions in which the regiment is permanently forbidden by War Office order to recruit, and that is Sutherlandshire. There is one other part from which practically no recruits are obtained, and that is Argyll. The depot of the regiment, by a strange vagary, has been placed at Stirling. To keep up the fiction of territorial recruiting, the War Office has temporarily "closed" England for the regiment—that is to say, recruits are not taken for it at English centres. As, however, men do not come forward at Scotch centres, what really happens is this:—Recruits are heard of in London; the officers of the regiment pay the fares of these men down to Stirling, where they are duly enlisted in the Argyll and Sutherland Highlanders. Indeed the efforts of the officers to keep up their splendid old regiment are almost pathetic. Within the last few months a party, consisting of two officers (one of them speaking Gaelic), a piper, and four non-commissioned officers and men, have perambulated the Highlands with the object of inducing Highlanders to enlist. Although nearly £100 has been expended by the officers and their friends in this honourable quest, not a single Highland recruit has been obtained.

LINKED BATTALIONS—NICKNAMES V. NUMBERS.

But these facts and figures are comparatively speaking of very little importance. The linked battalion system is a much more serious matter than the sham territorialism. In a dark hour for the British Army it was decided to take the fatal step of tacking together all the regiments of the Army in pairs, and making the one serve as the depot for the other.

As a preliminary to this arrangement, it was thought necessary to affront the whole traditions of the service by taking away the regimental numbers and by joining together, under a series of fancy titles, regiments which had not the slightest connexion one with the other.

I do not, however, pretend to regard the consequences of this step as quite so serious as some officers would have us suppose it to be.

The taking away the numbers was certain to add enormously to administrative difficulties. The substitution of an alphabet of strange symbols for simple Arabic numerals has been the plague of the service in peace time, and cannot fail to lead to hopeless confusion in war, but no doubt in time the new titles might have become as popular as the old. They have not done so, however, and do not seem likely to. But, be this as it may, the way in which they were foisted upon the regiments is so typical of the want of common sense that characterizes War Office methods that some reference to it is desirable.

The 42d Highlanders—Black Watch—was a name to conjure with, a name known throughout the United Kingdom and wherever British arms have left their record. To take another regiment which was not the 42d, which was not the Black Watch, and to call it by the historic name was a step which only most obvious advantage could justify. The 109th was an old and distinguished regiment in the East India Company's service. It had a name and fame of its own, of which it was justly

proud. Equally distinguished and even more remarkable in its origin was the 100th Regiment of Loyal Canadian Volunteers, raised in a great crisis in our history by the people of Canada. To join the two regiments together for administrative purposes may have been common sense, but to dub the joint production the "Prince of Wales's Leinster Regiment (Royal Canadians)" was assuredly an offence against both sentiment and common sense.

But, ridiculous as this tinkering with historic names undoubtedly was, it would have been unimportant if it had not been associated with the linking together of battalions for the purposes of reliefs.

In theory the two battalions of a regiment under the present system are supposed to be united to one another by the closest possible ties; as a matter of fact it is an essential part of the arrangement that the two battalions of a regiment are those which are the least likely to come in contact with each other of any two battalions in the whole Army. The association is as intimate as that of the man and woman in the weather-recording toy—when one is out the other is in. For instance, the 1st and the 109th Regiments may easily be neighbours in camp or barracks and comrades in the field. But the only chance of the 1st and 2d Battalions of the 1st Royal Scots, or of the 100th and 109th, ever being brought together is when the system, as sometimes happens, has fortunately broken down.

THE LINKED BATTALION AS A DEPÔT.

The only real connexion between linked battalions at the present time is of a most undesirable kind. One battalion goes abroad, the other stays at home. With the style and title of a regiment, with its own cherished traditions, with its full complement of officers, the home battalion is simply transformed into a sort of receiving bulk through which an endless succession of recruits is passed on for service abroad.

It is almost impossible to exaggerate the evils of the practice. Week after week and month after month there arrive at the barracks fresh parties of undersized, underfed, and untrained boys.

The whole energies of the regimental staff are directed to teaching the recruits the A.B.C. of soldiering. The moment the men begin to know and trust their officers, and the officers to understand and appreciate the men, there comes an order for a draft. The work of weeks and months is undone, the men go off to join a battalion in which they are unknown and to serve under officers whom they have never seen.

Meantime at home the weary game of making bricks without straw goes on for ever. I know a case of an officer who, returning to his regiment after nine months' sick leave, found only 23 men left in his company of the 120 whom he had known. In one regiment 800 men are under 18 months' service, and the proportion is in no way exceptional. No wonder the regimental officers, capable and willing as most of them now are, declare with almost absolute unanimity that their work is heartbreaking.

A FOREIGN "RELIEF."

It sometimes happens that no amount of waiting for the men's birthdays, no amount of scraping from depôts, will suffice to fill up a regiment for foreign service. The following is an example of what happens in such an event. The case is that of one of the most distinguished regiments in the service. The 1st battalion is abroad and is to be relieved by the 2d battalion from home. The 2d battalion has a strength of under 800 men. On examination it appears that 438 of the men are disqualified from physical or other causes from going abroad; the battalion therefore sails some 350 strong. On arrival at its destination it relieves the 1st battalion. This is how the relief is accomplished; 400 men are transferred from the 1st battalion to the 2d, leaving an equal number who, being either physically unfit to stay or about to take their discharge, are brought back to England.

The 2d battalion remains abroad with 400 men in its ranks utterly unknown to its officers. The residue of the 1st battalion comes home, the time-expired men take their discharge, and the physically unfit to stay are combined with the physically unfit to go, and thus the 1st battalion in the home establish-

ment is happily reconstituted. In another recent instance a battalion left for India with 600 men in its ranks who had never seen either their officers or their comrades till three weeks before the troopier sailed.

Sometimes it happens that both battalions are abroad at the same time, and under such circumstances the incapables of both are sent to a sort of military rag-bag known as the "provisional battalion," and which contains some 1,200 of the odds and ends of the Army for whom no home can be found.

It is absolutely impossible to exaggerate the folly and danger of this plan of making one battalion the depot for the other. It disheartens the officers, it demoralizes the men, it makes adequate training impossible, it turns our barracks and camps into gigantic nurseries where military exercises have to give place to the routine of an elementary school. The recruits, entering at uncertain times and in uncertain numbers, progress at unequal rates. Mutual confidence is lost; the ties which come from close association are destroyed or never created. The feeling of confidence, so necessary between officers and men, so essential in an army constituted as ours is, is deliberately destroyed at the very time that it is beginning to take root. There is no hope for the British Army until the linked battalion system, as it at present exists, has been stamped out.

THE RESERVE.

I now come to the Reserve. It is, or was, the custom of the supporters of the present system to play the Reserve as the trump card in their hand. It is a trump, I admit, but it is a very little one. It was pointed out when the short service system was introduced that, though we entered on the Crimean war with an Army of exceptional physique and capacity, we found ourselves at its close absolutely at the end of our resources in respect of men. We had a first line, but no second line. This was certainly an undesirable state of things. Is it clear, however, that we are any better off now than we were in 1855? I do not myself believe that our principal difficulty in case of war will be so much a want of men as a want of the right men. At the same time it should be clearly understood that our present Reserve is barely sufficient to fill up the vacant places in our first line.

A few weeks ago I heard a distinguished and highly-placed official remark that the Reserve had but one fault—namely, that it was 50 per cent. short of its proper number. I do not admit that this fault is the only one; but that it exists and is a most fatal blot I do not deny. The first-class Reserve numbers 59,280; in the opinion, therefore, of the official in question the deficiency is about equal to 100 regiments of 600 men each.

This is undoubtedly serious. Let us see how the existing reserves will be applied. It is calculated by the Indian authorities that to fill up the Indian Army to its war strength 6,500 men will be required, of whom over 4,000 will be infantry.

It is further reckoned that a year's casualties will involve a further demand of 11,000 men, of whom some 8,000 would probably be infantry. And this calculation, be it remembered, does not allow for the reinforcement of the Army in India by a single battery, squadron, or regiment.

None of the battalions in the colonial stations and fortresses are at war strength. There are 20 of such regiments which will require at the least 150 men each, or a total of 3,000 men.

The total first-class Reserve for the infantry, including the Guards, is 44,000 men. Subject to the deductions already made, there will remain, therefore, 29,000 infantry to fill up the battalions on the home establishment. Of these eight are nominally maintained at a strength of 920 rank and file; the remainder, 63 in number, are maintained at a nominal strength of 720, requiring 200 men to complete. Here then we have a further draft upon the reserves amounting to 12,600, and leaving a small residue of 16,400 men. But, as we have already seen, even among the battalions of the 1st Army Corps, the average of incapables is from 50 to 80 per cent. It will not be

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necessary, of course, to replace all these men, many will be kept in the ranks under the stress of war who ought never to have entered them.

But we may take it that, on a moderate estimate, at least 25 per cent. of the nominal strength of the battalions as they now stand will have to be replaced from the Reserve. Taking the figures of the battalions as given above this means a further call of 18,152 men, which exhausts the whole of the first-class Army Reserve for the infantry and necessitates a call of 2,052 men from the almost practically untrained men of the Militia Reserve.

In none of these cases, except in reference to India, has any allowance whatever been made for a reinforcement of the Army or for supplying the waste of war. It will thus be seen that, in the true sense of the word, our Reserve is not a Reserve at all, but merely an arrangement for patching up in time of war the rents which we ought never to have permitted in time of peace. It is hard, therefore, to see in what respect we are better off than we were at the time of the Crimean War. In one respect we are worse off. We began the war with an efficient Army; we shall begin our next one with an inefficient one. It must be understood that some of the figures which I have just given are approximate only; the exact figures can only be extracted from the War Office return to which I have alluded, and which I trust soon will be produced in Parliament; but they are certainly under, not over, the mark. Instead of being a supplement to our field army, the Reserve has become a substitute for it.

Even more serious than the inadequacy of the Reserve in point of numbers is its inadequacy in point of training and preparation. Men who have left the Army for three or four, and it may be for eight or nine, years, who have returned to civil life, married, and engaged in business, are not soldiers merely because they draw reserve pay.

Our Reserves are never embodied for practice, and it does not require argument to show that such neglect must produce inefficiency.

In the case of at least two-thirds of the Reserve the men, if called out to-morrow, would have to begin the whole of their military education again. The artillerymen would find a new gun, a new powder, a new projectile. The infantry would find a new rifle, a new bayonet, a totally new system of attack, and would even be unfamiliar with the ordinary company drill. But all these things are unimportant in comparison with the fact that they would have lost the military habit, the military tradition and discipline, and the familiarity with the soldier's life which are essential to the composition of a trained soldier.

It must not be supposed that because I have said nothing about the organization of the War Office itself that I underrate the part which the absurd constitution of that department plays in promoting the inefficiency of our Army. I have dealt at length with this part of the question in the *Nineteenth Century*, September, 1889, and I shall not dwell upon it here.

WHO BELIEVES IN THE SYSTEM?

Such is my case; I am aware that it has been imperfectly stated. I have written as an amateur, with limited time, limited opportunities for observation, and with no special facilities for obtaining facts. But even so I maintain that I have proved what I undertook to prove—namely, that in spite of an annual expenditure of 20 millions sterling we have no Home Army. I know that in stating this opinion I am expressing the view of the overwhelming majority of officers in the service. When I first began to concern myself with the condition of our Army I was under the impression that there existed a large and influential class of officers who were ardent champions of the existing system and prepared to defend its results; I failed, however, to find this body of officers. I then fell back upon the belief that in very exalted quarters there must be some few men of light and leading who by virtue of their special and superior information were able to discover merits in our system which were not revealed to less favoured persons. But this belief also I have been compelled to abandon. Save in one

or two reckless and evidently unconsidered after-dinner speeches, no officer has been found to defend the present condition of things. The most careful and exhaustive search has failed to discover the individual who really believes in the plan by which so many suffer and against which so many complain.

I still cherish the hope that some day I may find, perhaps in a back room of the Army Clothing Department at Pimlico, the man who really believes in the system. If he be not there he is not anywhere.

CONCLUSIVE.

Naturally I have my ideas as to the remedies that should be applied to cure the present evils, but they are of no public interest or importance. There is no sure method of achieving success, but there is one sure and certain method of avoiding it, and that is by deliberately organizing failure. My efforts will indeed have been wasted if I have not succeeded in demonstrating that our present system, having been created in direct defiance of logic, common sense, and human nature, cannot by any possibility ever succeed. To those who think that we ought to have no Army I have nothing to say, except that I do not agree with them. But to every taxpayer I wish to point out that, while to have no Army and to pay nothing for it is reasonable, or to have a good Army and to pay 20 millions for it is reasonable, to pay 20 millions for an Army and not to get one is not reasonable, nor to be endured. Your obedient servant,

H. O. ARNOLD FORSTER.

9, Evelyn-gardens, S.W.

THE ADMINISTRATION OF THE WAR OFFICE.

I.

TO THE EDITOR OF THE TIMES.

Sir,—The War Office, which administers a gross annual expenditure now exceeding £20,000,000, has proved totally unable to provide an army capable of fulfilling the national requirements. Some reason for this monstrous display of incapacity must, apparently, exist, and in an age of eager analysis of things great and small, it is inevitable that this reason should be sought. I propose to trace the relation between cause and effect, and to show the steps which must be taken to create an administration worthy of the confidence of the country.

In 1870 a great military system, popularly regarded as the most efficient in Europe, was shattered in four weeks from the declaration of war. The inherent military qualities of the French nation, called into play by the genius and indomitable will of a lawyer, unknown except as an orator, enabled the struggle to be prolonged for four months. In Von Moltke's words:—"Fresh masses of men, however inferior in value as military bodies, neutralized the original numerical superiority of the Germans, and 12 more battles had to be fought in order to secure the decisive siege of the enemy's capital." Out of the ruins of 1870, France, in 20 years, with steady, silent determination, strangely inconsistent with the supposed character of the race, has built up a new system, deriving its powers from a new form of government. The result achieved—the French army as it is to-day—has been recently described in the columns of *The Times* by an able and trained observer of the latest manoeuvres. The military regeneration of France is by far the most significant fact in the present European situation.

Germany, in possession of a long-established system, tried in three campaigns, has employed her whole energies and all the genius at her disposal in perfecting it. Italy has created a great army, well prepared and trained for war. Austria, in spite of the difficulties arising from her dual nationality, can now place a large force of excellent troops in the field at short notice. Russia, if less advanced in preparation, has huge masses of men at command, and carries out annual manoeuvres on a grand scale. The militia army of Switzerland is exactly suited to the national requirements—cheap, admirably equipped, and well trained. Roumania can rapidly mobilize 200,000 men out of her population of five millions. All these Powers have succeeded in creating effective armies ready for war, under national conditions varying as widely as those of Germany and Italy, and under forms of government as absolutely diverse as those of Russia and Switzerland. The economic aspects of the maintenance of these armies are not now in question. The fact remains that five European nations have solved the problem of forming and maintaining military organizations fulfilling their assumed requirements, and, further, have distinctly proved that armies can in peace time be organized and prepared for war.

Meanwhile, in the 20 years which have elapsed since the tremendous lesson taught by the overthrow of France, the progress attained in England has been relatively trivial. Our officers are better instructed; so, too, is the nation at large. The position of the soldier has been improved, as has that of the agricultural labourer and the artisan. The principle of an intelligence department has taken root; its uses have not at present been fully grasped. Following in the wake of Europe, we have partially modernized our drill

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books. In artillery, we have, with halting steps, traced the path well trodden in advance by other Powers.

The so-called short-service system, with variations, has been in operation for nearly 20 years, and now produces a nominal reserve of about 60,000 men, not systematically trained.

Such matters, fraught with deepest significance to the minds of soldiers, appeal less to the imagination of a great industrial people than the shortcomings of the Ordnance Department—

ments. Occasionally galvanized into spasmodic action by the pressure of outside manufacturers, the Navy, or the Press, it turns out immature results, half considered and wholly unsatisfactory.

The indirect evidence of the inefficiency of our whole military system has led to formal inquiries, frequent and searching. We have passed through an epoch of commissions and committees.

The worst scandals are never brought to the ordeal of public inquiry. They are recorded in the experiences of every officer of the Army, and especially of those who have served in our minor wars.

Such an indictment is exactly calculated to crystallize the profound distrust in its rulers which has long permeated all ranks of the British Army.

the Army, whose higher administration appeals directly to the intellect of the soldier. Perhaps the one real advantage which Germany unquestionably possesses over her great rival to-day is the trust which the general staff created by Von Moltke has deservedly earned.

Closely connected with this confidence is the tone which all military forces derive, directly and indirectly, from their rulers. This inspiring force, with enormous potentiality for good and evil, is a thing altogether apart from personal gallantry, or the inherent fighting powers of a race.

the vessel was the first of the "C" class built by her present commanding officer on April 2. The Admiralty has issued instructions for the formation of a ship department on Wednesday next, details for the King's Own Scottish Borderers, and other infantry regiments in India, as well as the 4th Field Battery for Korneo.

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books. In artillery, we have, with halting steps, traced the path well trodden in advance by other Powers. Only the periodic halts in the march of progress enable the distance of the straggling rearward to be temporarily diminished. In all that relates to organization and the preparation of the army for war, we are as far behind Switzerland to-day as France was behind Germany in 1870.

The so-called short-service system, with variations, has been in operation for nearly 20 years, and now produces a nominal reserve of about 60,000 men, not systematically trained. The fact that the present conditions of service are wholly unsuited to the requirements of an army called upon to maintain about 95,000 men in India and the Colonies, is beginning to be widely recognized. A system inadequate or inappropriate may, however, conceivably be well administered. Unfortunately, evidence of the mismanagement of the Army accumulates on all sides. When last year a body of cavalry was assembled for manoeuvres on the Berkshire Downs, it was obvious to all observers that the very elements of real military training were absent. No finer force, for its numbers—certainly no more costly force—could have been shown by any army in the world. But had this British cavalry been sent straight into the field, in place of being called to peaceful evolutions, it would have been found wanting. The manoeuvres of a mixed force in Hampshire this year disclosed an appalling want of tactical proficiency even in the higher commands; while it appears to have been considered necessary to issue instructions descending into details, whose minuteness can be explained only by a profound distrust of the training of the troops. Object lessons such as these throw a strong light upon certain episodes of our minor wars. Some battalions proved incapable of accomplishing a short march without leaving a large percentage of their numbers behind. Yet marching is mainly a question of boots properly fitted, and of previous training, that is of company officers and Battalion Commanders, whose responsibilities have been duly defined. Under the absurdly easy conditions of these manoeuvres, no actual breakdown of transport occurred; but for field operations the force assembled was not mobile in any real sense of the word, and the gravest doubts arise as to whether, even now, we possess a single equipped Army Corps. Easter manoeuvres have illustrated every phase of administrative incapacity, and operations have been encouraged or sanctioned which would be ludicrous but for their terribly serious side.

Such matters, fraught with deepest significance to the minds of soldiers, appeal less to the imagination of a great industrial people than the shortcomings of the Ordnance Department—the term is used merely for the sake of convenience, since no such department now exists. The supply of armaments is mainly a question of manufacturing power scientifically directed towards specific ends. Thus the country, which at one period assumed the lead in artillery questions, and which easily distances the world in steel shipbuilding, is naturally indignant when its vast resources, under War Office direction, prove incapable of meeting demands which the foreigner easily fulfils. It results that the popular outcry is directed rather against the guns which burst, crack, or droop, the fuzes which fail to act, and a small arm at present palpably unsatisfactory, than against defects of training and of organization. The outcry has naturally not been always discriminating, but in the main it has been amply justified. As a business department, that of the Ordnance is hopelessly incompetent. Its methods are cumbersome, costly, and slow to the last degree. It never defines a policy, but drifts along in accordance with the misapprehended indications furnished by insufficient and ill-directed experi-

ments. Occasionally galvanized into spasmodic action by the pressure of outside manufacturers, the Navy, or the Press, it turns out immature results, half considered and wholly unsatisfactory. It has no initiative and no light, because there is no leading. Thus is the inherent genius of a great industrial nation strangled, and its vast potentiality for the production of weapons of war effectually neutralized.

The indirect evidence of the inefficiency of our whole military system has led to formal inquiries, frequent and searching. We have passed through a epoch of commissions and committees. Every one assumed to possess any special knowledge of the Army has been examined several times, with the natural result in some cases of inconsistent answers. Nothing has come of these inquiries except a mass of evidence of a startling character. The reports of the inquisitors urged necessary reforms in plain language; but the original impulse of their labours—some passing wave of popular indignation—having meanwhile disappeared, the proposals could be set aside. "There is no definite responsibility," declared Sir J. Stephen's Commission. "The great defects of the existing system are three—first, it has no definite object; second, it has no efficient head; third, it has no properly organized method of dealing with technical questions." A more recent commission, which included three ex-Secretaries of State for War, has deliberately pronounced the existing "condition of affairs" to be "unsatisfactory and dangerous." The evidence which elicited this strong expression from a body so little likely to commit itself to extreme opinions as that presided over by Lord Hartington has never yet been given to the public.

The worst scandals are never brought to the ordeal of public inquiry. They are recorded in the experiences of every officer of the Army, and especially of those who have served in our minor wars. In military circles facts are known which illustrate maladministration in every phase. Some are naturally exaggerated; others are literally true; none go beyond actualities. If Mr. Arnold Forster undertakes the collection of evidence of this class, he will find a whole mass of material ready to his hand. In a magazine which ministers to the intellectual needs of the Army, the late Adjutant-General has compressed into a few significant sentences his estimate of the degree of military progress attained up to September last:—"When shall we succeed in thinking out for ourselves what changes are required in our military system, in our drill, training, tactics, and equipment, untrammelled by notions and prejudices which, sound and good a century ago, are now as out of date and behind the science and inventions of the day as would be the bows and arrows of the Middle Ages? We have now plenty of most intelligent and highly-educated officers capable of modernizing our Army, but they are set upon by the bow-and-arrow style of generals. Their initiative is too often crushed by our ignorant and intolerant military conservatism." Utter condemnation is comprised in these words. All that makes an army a fighting machine, and not an aggregate of non-productive persons in uniform, is here admitted to be wanting in the military system of Great Britain. No stronger indictment of an administration could be framed. And these scathing periods come from no irresponsible outside critic, but from an officer of the highest position, who for 13 years sat behind the scenes at the War Office holding a measure of power accorded to none of his predecessors.

Such an indictment is exactly calculated to crystallize the profound distrust in its rulers which has long permeated all ranks of the British Army. The days of unreasoning acquiescence in mere authority, however wielded, have long passed away. Education equips critics by the million. In this lies a new source of strength to

the Army, whose higher administration appeals directly to the intellect of the soldier. Perhaps the one real advantage which Germany unquestionably possesses over her great rival to-day is the trust which the general staff created by Von Moltke has deservedly earned—a trust amply justified by the experience of great wars. Incalculable, on the other hand, is the moral injury inflicted upon an army whose administration has forfeited the right to claim its confidence.

Closely connected with this confidence is the tone which all military forces derive, directly and indirectly, from their rulers. This inspiring force, with enormous potentiality for good and evil, is a thing altogether apart from personal gallantry, or the inherent fighting powers of a race. It may be best defined as the strong sentiment that the interests of the service dominate all others, that the individual, or the unit, is but a part of a whole, whose welfare depends on their mutual loyalty and subordination to the general cause. This sentiment is fully compatible with generous emulation; it is destroyed by jealousy and self-seeking. The tone of any army may be definitely raised by an example such as that which Von Moltke gave to Germany, or by an administration conspicuous for its purity, inflexible justice, and single-hearted devotion to the general good. Signs of a certain deterioration of tone in the military forces of Great Britain are, unhappily not infrequent. The jealousy capable of existing among superior officers has received some unpleasant manifestations. The bonds of discipline—using the term in the highest sense—have become visibly relaxed, and the callousness with which acts amounting to insubordination have been viewed is perhaps the most unhealthy sign of the times. Fitness, notwithstanding the compounded speech of the Secretary of State, is by no means recognized as the sole possible claim for selection to offices, high and low, and the whole system of rewards and promotion urgently calls for stern revision. The fountain of honour which can powerfully stimulate an army is also capable of poisoning its moral sense. Lord Lee of Walsley bear voluntary witness to the manner in which the highest distinction conferable upon the soldier may be and has been obtained. Writing two years ago, he alludes to the "many who obtain it (the Victoria Cross) by asking for it, and by enlarging upon their own deeds of heroism in order to get it." His exceptional opportunities for ascertaining the way in which such matters are dealt with cannot be questioned, and his words not merely convey an insight into administrative methods, but serve to elucidate much that would otherwise be inexplicable. It has recently been considered necessary to issue peremptory orders on the subject of the employment of what is technically known as "interest" in connexion with appointments. The necessity of such orders is obvious. Who would ever take the trouble to amass "interest," unless the easy accessibility of the administration to its influence had been well established? The whole brevet system—a system of great value, if administered upon definite principles—has proved open to gross abuse; while military titles have been suffered to lose all real significance. Their value has been heavily discounted; their connexion with specific duties and responsibilities has been ruthlessly severed. As in the political administration of the country, so in the military service, the habit of pandering to individual interests, apart from their relation to the body politic, has steadily grown of late years. In the one case the tendency may be merely an indication of social evolution. In the other case, it is demoralizing and destructive.

Turning to the achievements of the War Office as set forth in the Estimates of 1891-92, the gross vote for effective services amounted to £18,519,490, the non-effective items have risen to £3,870,017,—almost one-fourth. The following was apparently the numerical strength of the armed forces actually existing at the beginning of the year:—Regular troops for service at home and in the Colonies, 136,913; First Class Army Reserve, 69,280; Second Class, 963; Militia at home, 109,546; in the Channel Islands and at Malta, St. Helena, and Bermuda, 4,486; Yeomanry, 10,830; Volunteers, 221,048. Every establishment was below strength, the deficiency of regular troops being 6,936 and of the whole force 91,684. The strength of the British Army in India was 73,596, the entire cost of which, including the training of recruits and the transport of reliefs, was borne by the revenue of India. The whole function of the War Office in regard to this force is the supply, in return for liberal payment, of men so immature that about 50 per cent. are ineffective, at least during their first year, constituting a sensible deduction from the nominal strength.

Thus a motley crowd of about 543,000 men administered in London represents the net result obtained for the Army votes. The numbers are imposing. A single Army Corps might possibly be collected after a fortnight of exceptional effort, and would then be a mere aggregate of equipped men having no real cohesion, and possessed only of a training which the late Adjutant-General has justly stigmatized as obsolete and absurd.

This is the achievement which the Secretary of State for War regards with complacency.

I am, Sir, your obedient servant,

November 3.

VETUS.

"Times" Nov. 12. 1891

63

THE ADMINISTRATION OF THE WAR OFFICE.

II.

TO THE EDITOR OF THE TIMES.

Sir,—In my first letter I endeavoured to set forth in plain language the results which the War Department has achieved after a period of more than 30 years of immunity from all real strain. The Crimean war found the country wrapped in the ignorance engendered by a long peace, and utterly unprepared. Operations were entered upon without any idea of the requirements involved, or of what the conduct of a campaign implied. The transaction of routine business had come to be regarded as the whole duty of the military authorities. The Army fought and endured with a devotion worthy of its best traditions; but the awakening of the nation took place too late to save the troops from untold suffering easily preventable, and the public indignation, misdirected in the main, rapidly expended itself. The Indian Mutiny created a demand for men and gave striking proofs of their fighting capacity, but did not in any way test the value of the changes introduced into the administration of the War Office. On the requirements disclosed at this period, the strength of the standing Army appears to be based, and since 1858 that strength has never fallen below 200,000. Numerous small wars have provided varied teaching capable of being turned to account, while great campaigns fought in Europe, and elaborate and complete organizations there carried out, have afforded lessons of the most practical character.

During this century, a remarkable change has come over the feeling of the country. Notwithstanding that democracy has advanced with long strides, the jealousy of a standing Army, which forms a prominent feature in our political history, has almost passed away. Army Estimates are still attacked, but only in their economical aspects. Sir Arthur Wellesley declared in the House of Commons:—"The Navy is the constitutional force of Britain, but the Army is a new force arising out of the extraordinary exigencies of modern times." Throughout the 17th century the maintenance of the Army was a fruitful source of embittered debate, and one of the articles of impeachment drawn up against Lord Clarendon in 1667 was that he "hath designed a standing Army to be raised and to govern the kingdom thereby." In 1793 the House of Commons discussed at length the whole policy of the establishment of barracks, which Mr. Fox strenuously opposed. Less than one hundred years later, the present Parliament, elected almost on manhood suffrage, agreed to an expenditure of about £4,000,000 on barracks, without even demanding details, or caring to consider to what extent existing defects of military organization might thereby be stereotyped. The year after Waterloo witnessed a curious manifestation of the old jealousy, when it was proposed not to bring the charge of the troops maintained in Paris upon the Estimates, but to pay them out of sums to be received by the Crown from French revenues. The proposal, immediately challenged as unconstitutional, was withdrawn. No sum is now grudged by the nation to the fighting services if it is clearly shown to be required, and if there is reasonable probability that it will not be wasted. The Naval Defence Act was one of the most popular measures introduced by the present Cabinet. The idea of a standing Army is wholly naturalized, and an attempt to use reduction as a party cry would meet with no response whatever.

It is clear, therefore, that for some years the War Office has enjoyed special advantages, and that all the conditions favourable to the creation of an

efficient military force have existed. No national parsimony, no preoccupation, no want of plain lessons can possibly be advanced in extenuation of the miserable results achieved. The plea of want of necessary funds is obviously inadmissible, since no one would seriously contend that a perfectly efficient force of some sort cannot be maintained in return for the present expenditure. If the existing strength is too great for the sum available, then it is the plain duty of the military authorities to press for a reduction. A smaller army, organized, trained, and equipped for war, would be of far more value to the nation than the present force in the state plainly indicated by the late Adjutant-General.

In searching for the causes which have brought the military forces of the nation into a Slough of Despond, it is evidently necessary to begin at the head. Englishmen suffer from no inherent military disability. The troops, who, beginning their education as oarsmen at Gemmal, succeeded, under a burning sun, in covering 500 miles of one of the most difficult rivers of the world, were capable of any achievement. The inchoate force, promiscuously brought together from 20 regiments, which withstood the fierce Arab onslaught at Abu Klea, displayed qualities of the highest class. We are not at present destitute of excellent raw material for the manufacture of an army, nor is there any reason whatever to believe that organizing power is wanting. The country possesses some great railway systems, admirably and cheaply administered, which supply conclusive proofs that this power rests with us. Who would exchange the management of the Great Northern for that of any German line? Political and social conditions, conscription, or the price of food have nothing whatever to do with the present question. Efficient administration is attainable under all circumstances, and is fully compatible with limitations of scale. There is no inherent reason whatever that the Army of Great Britain should not now be "the finest little fighting machine in the world," as Lord Wolsley has stated that it "ought to be, and can be made." There are even special circumstances, arising from the national characteristics, which have tended to facilitate the accomplishment of such a result. Evidently, therefore, in seeking an explanation of the absolute failure of the greatest spending department of the State, it is necessary to examine carefully its system of administration. If it should prove that this system violates great principles, the patent evils under which the Army labours would be traced to their first cause.

The methods of administration of the Admiralty, even in many matters of detail, have been handed down from the beginning of the century. They have their basis on the experience of great wars; they are associated with glorious traditions; they bear the impress of minds which grasped the national needs and knew how to fulfil them. The military system of India can claim almost equal antiquity, and has so successfully stood the test of numerous campaigns that no great administrative change has ever been introduced, notwithstanding the new departure involved in the transfer of the government of an Empire and an army to the Crown. In startling contrast stands the history of the home military administration, to which, since the period of the Crimean War, stability has been unknown. During 36 years changes have been incessant, and the Army has suffered from successive shocks felt throughout its whole structure, and engendering a universal sense of uncertainty and distrust. The operation of certain forces can be clearly traced in these changes; but of any attempt to go back to broad principles, or to imitate forms of administration proved to be efficient, such as those of the Admiralty and of India, or of Germany, there is no sign. Some special difficulty, capable of being ascertained, must, apparently, have baffled the efforts of reformers.

Cromwell's army, wrote Lord Wolsley in the *Fortnightly Review*, was the "finest in every respect that England, or, I suppose, indeed, any nation has ever owned." But this army overturned the Throne, and this fact cannot be easily forgotten. On the other hand, the attempt of James II. to govern by the agency of a standing Army inevitably caused a second revolution. The Bill of Rights sufficiently proves the national determination to place the relation of the Crown to the Army on a fixed basis. "For the vindication and assertion of the ancient rights and liberties of the people," the maintenance of a standing Army, without the consent of Parliament, was formally declared to be illegal. It is unnecessary to trace the changes of relations between the Army and the Crown which have occurred since the accession of William III. The growing authority of Parliament has swept away many of the powers remaining to the latter under the Bill of Rights. Absolute control over expenditure, as over the numerical strength of the land forces, has long been established by the House of Commons and is now unquestioned. Logically, this control must carry with it that of the whole administration. There is no possible middle course; but this fact has never been fully recognized. The Secretary of State for War does not occupy the same position in relation to his department as that held by the First Lord of the Admiralty and other Ministers. Undivided responsibility for the administration of the Army could not be brought home to him. The measure of responsibility assumed fluctuates with the individual strength of the temporary holder of the office. All departments of State, except the War Office, are ruled by the Crown directly and solely through a Minister responsible to Parliament, and the existence, in its present form, of such an office as that of Commander-in-Chief would be wholly incompatible with their administration. The relations of the First Naval Lord to his Parliamentary chief are clearly defined and admit of no question. Those of the Commander-in-Chief to the Secretary of State are in some respects indeterminate. Yet the curious anomaly exists that on the outbreak of war the functions of the former office lapse. Not only does the Cabinet assume responsibility for the appointment of the officer to command in the field, but this officer, under his Letter of Service, is required to report direct to the Secretary of State. It is as if Parliament, though acquiescing in a certain vagueness in respect to its responsibilities for the administration of the Army in peace, was determined to assert them in war. Moreover, this vagueness results merely from usage. It is a legacy from the past and not the product of a legal flaw, for the latest Royal Commission states that "the complete responsibility to Parliament and the country of the Secretary of State for the discipline as well as for the administration of the Army must now be accepted as definitely established." At the same time the Commissioners admit that practice differs from theory, and the recent concentration of administrative functions in the office of the Commander-in-Chief has, in a certain sense, tended to lessen the control and the responsibility of the Parliamentary Minister.

It is remarkable that in the controversy between the two Houses of Parliament, which arose in 1644, the Lords desired to assert the authority of Parliament to nominate, appoint, and approve "all colonels, lieutenant-colonels, sergeant-majors, and captains, that shall be employed in this Army." The Commons, more wisely, contended that the power of nomination should be vested in the Commander-in-Chief, and that "no inconvenience" could arise, because "both Houses are to approve the officers nominated." Thus early was the authority of Parliament asserted, even over matters with which it is

obviously unfit to deal; but this authority was practically abandoned later, to be again gradually reasserted in the case of active commands. In 1806 the Secretary at War appointed Colonel Robert Crauford, afterwards the hero of the Light Division, to the command of a mixed force intended for operations in South America. The appointment raised a storm of complaint, and Mr. Windham, in a letter to the Brigadier he had selected, alludes pointedly to "the enmity felt here both against you and me." Thus the exercise of an undoubted right by the Secretary at War did not receive the acquiescence of the superior officer of the Army. Crauford's force was afterwards placed under the orders of General White Locke, whose appointment raised no resentment, and became involved at Buenos Ayres in one of the most disgraceful episodes which incompetent leadership has entailed upon the British Army. Since the regularized establishment of the office of the Commander-in-Chief in 1812, a certain measure of doubt as to its legitimate functions has prevailed. The conditions have been such as to ensure mutual jealousy between the military head of the Army and the civil Minister. For many years they occupied separate buildings, which helped to accentuate their differences. After the abolition of the office of Secretary at War in 1863, and the subsequent transfer of the old Horse Guards establishment to the War Office, the power of the civil Minister inevitably increased in some aspects; but, as the Royal Commission admits, that power—and with it the responsibility—falls short in practice of its legal rights.

In a system involving anomalies of many kinds, this special anomaly may naturally seem to be of no importance. No conclusion could be more wide of the truth. The long-standing jealousy between the offices of the Secretary of State and of the Commander-in-Chief has left its mark upon the whole fabric of the Army. More than 200 years ago it was stated that "In the Army it has grown into a principle that Parliaments are roots of rebellion." This principle exists to-day in the form of a certain distrust of the civil Minister which is wholly incompatible with discipline in its higher aspects. The young officer who entered the Army 35 or 40 years ago became immediately impressed with a sense of the existence of a standing feud between the War Office and Horse Guards, subsequently exchanged for a perennial struggle between the civil and the military side of the former. Thus among all ranks the idea of a duality of government has been deeply rooted. There are two tribunes, and the one is popularly assumed to be in the main hostile to the interests of the soldier, which interests the other is vaguely regarded as seeking ineffectually to protect. From the one tribune come the alterations in retirement rules which the officer resents; from the other, the promotion, rewards, and decorations which he covets. This impression, fostered in various ways—for stage "asides" are frequent in this Comedy of Errors—is obviously incompatible with the discipline and loyalty to the administration which is one of the first conditions of an efficient army. Instances might easily be multiplied. It is sufficient to state that an important change in Army organization may be held up to general derision at garrison theatricais, and that, according to well-established precedent, important appointments may be publicly criticized in the Press by officers of high position on the active list, provided only that such appointments seem to bear the impress of the mind of the Secretary of State. No attempt to veil the existence of serious differences of opinion on questions of the first moment between the late Adjutant-General and the Commander-in-Chief seems to have been made. "When shall we have thoroughly professional officers, devoted to the rough usage and operations of real war rather than to the hurdy-gurdy marching-past side of a soldier's life in peace?" asks the Adjutant-General. The Com-

mander-in-Chief, after a brief exhibition of barrack-yard drill, is stated to have pronounced a regiment "fit to go anywhere and do anything." Special privileges and immunities must evidently attach to the office of the Adjutant-General if it is possible for the holder to publicly write:—"If we blindly insist upon preparing for a past condition of war which can never be reproduced, our Army will most certainly be found wanting in the day of trial." The Adjutant-General is among other matters, "responsible to the Commander-in-Chief for the efficiency of the military forces of the Crown." It may fairly be assumed that the Secretary of State has no predilection for the "hurdy-gurdy" theory of military training. What then do the words above quoted mean? Who is it that, in Lord Wolseley's opinion, "blindly insists" upon archaic methods? If public utterances such as these are permissible to the "Chief Staff Officer," where can the line be drawn? Thus the government of the Army at its very head supplies an example of incomplete responsibility on the one hand and of indiscipline on the other. And the many evils arising from the imperfect acknowledgment of the authority of the Secretary of State have been aggravated by visible signs of conflict between his chief military advisers.

Sir, the British Army of to-day is considerably more enlightened than that which "swore terribly in Flanders." It has learned to study and to form its own opinions. An administration can only claim and obtain its full confidence by proving worthy. We demand a united administration whose measures bear the recognizable impress of the genius which is fit to rule, and, as a first condition, that all trace of dual government should cease. The authority and responsibility of the Secretary of State for War will then be as complete in practice as it is in theory, and the government and the discipline of the Army will conform to those of the Senior Service. The dignity of the Crown must not be compromised by association with administrative failure.

I am, Sir, your obedient servant,
VETUS.

Times Nov. 18. 1891

THE ADMINISTRATION OF THE WAR OFFICE.

III.

TO THE EDITOR OF THE TIMES.

Sir,—In laying down, as the first condition of the efficient administration of the Army, that the supremacy of the Secretary of State must be placed beyond all question, I am aware of the existence of contrary opinions. Lord Randolph Churchill contends that reason and common sense alike demand "military training, military experience, and military eminence" as the necessary qualifications of "our Minister for the Army." In fulfilment of this principle, he proposed a system, of which the principal result would be to drag down the Admiralty to the present level of the War Office. Lord Wolseley maintains that the greatest lesson of the civil war in America is the danger arising from the interference of civilians in military affairs, to which General Fry, who corrects many of his Lordship's errors, replies:—"Is not this, in the free countries of Great Britain and the United States, complaining of the inevitable?" He might have pointed out that the dogged determination of Grant, the brilliant leadership of Sherman, and the fiery ardour of Sheridan would not have availed to save the Union but for the firm grasp of President Lincoln.

Such questions, however, lie outside of the present inquiry. Existing conditions are those with which alone I have to deal. The institutions of this country will not be modified merely to obtain for the Army an efficient administration. I hold that it is certain that such an administration entails no political change, and that the probability of obtaining a War Minister of proved business capacity is far greater under present circumstances than if the office were left to become the possible reward for success or good fortune in war. The principle of a full and undivided responsibility to Crown and to Parliament for the efficiency of the Army is, however, entirely independent of this question. A sound system of administration is a thing altogether apart from the professional knowledge of its head, and the main requirement of the War Office is the power of transacting business with efficiency and despatch. The professional Minister would find his special knowledge fail him at every turn and would be wholly dependent on the machine intrusted to his charge. In what condition is the machine at this present time?

Prior to the Crimean War the business of the Army was distributed among various Departments of State. The Secretary of State for War and the Colonies was charged with the direction of general policy, whilst the Secretary at War "superintended all the financial operations of the Army proper, as regards its personnel." The Commissariat Department was administered by the Treasury, and the Militia by the Home Department. The Master-General of the Ordnance was intrusted with the supply of matériel of war and with the administration of the artillery and engineers.

The roots of this strange system stretched far back, and had their origin in old constitutional struggles. After the Restoration the Army was administered by the Crown, the Secretary of State, and the Treasury; "but the detail of the business of a standing army was from the commencement of the reign submitted to a subordinate officer, ultimately styled the Secretary at War." Parliamentary responsibility being then non-existent, the new office was directly subordinate to the Crown, or to the General Commanding-in-Chief, and its duties—at first undefined—embraced those subsequently attaching to the office of Quartermaster-General. These duties were then regarded as of a civil nature, and henceforth the Orders and Warrants of the Crown were countersigned only by the Secretary of State, a Lord of the Treasury, or the Secretary at War.

The establishment of the control of Parliament over the whole finances of the country conferred increased powers upon the Secretary at War and upon the Treasury, under which department all services connected with the supply of provisions, forage, fuel, light, and inland transport had passed before the end of the last century. This arrangement received the full concurrence of the Duke of Wellington, whose experience led him to affirm that "the Commissariat should be, both in peace and war, under the Treasury and responsible to the Treasury alone." The Ordnance Department, by far the oldest of the institutions of which traces remain in the present War Office, was originally created for the use of the Navy; but the predominant influence acquired by the Army—a merely social development, against which a healthy reaction appears to have set in—caused it to assume ultimately a purely military character. The Master-General of the Ordnance, a soldier of distinction and authority, came to be regarded as the military adviser of the Cabinet in days when the office of Commander-in-Chief was still viewed with jealousy. The Board had an honourable record for efficiency and economy, and its methods of conducting business obtained the commendation of the Duke of

Wellington, Lord Hardinge, and Sir James Graham.

An administration, excessively complex and involving many separate departments of State, could not be expected to stand the strain of war, and the breakdown of 1854-5 was the inevitable result. This breakdown and the flood of national feeling which followed provided grand opportunities for sound reforms. These opportunities were lost. The system which had miserably failed in the hour of need embodied some great principles, none the less true because misapplied. The distribution of duties among mutually independent offices of State was doubtless indefensible; but it had arisen from the action of Parliament in asserting its own authority. It at least avoided the evils of centralization. It provided checks upon extravagance. It secured civil control over matters civil in their essence, and it provided special training for the discharge of special duties.

The tendency of all subsequent change has been in the direction of centralization and absorption by the military authorities of every sub-department of the War Office, thus weakening Parliamentary control and responsibility.

In 1855 the office of the Secretary of State for War and the Colonies was divided by Act of Parliament, and that of the Master-General, vacant since the departure of Lord Raglan to the East, was abolished, the duties being transferred to the Secretary of State. The office of Secretary at War remained until 1863, its functions being then also transferred bodily to the Secretary of State. No organization of the enormous Department thus created seems to have been attempted. Its administration was left to chance, and the chaos which ensued led to the appointment of Lord Northbrook's Committee in 1869. In accordance with the Report of this Committee, the Commissariat, as well as the Militia, Yeomanry, and Volunteers, was transferred to the Secretary of State for War; but, on account of the great additional financial and other responsibilities thrown upon the office since the abolition of the Master-General, the appointment of a Surveyor-General of the Ordnance was authorized by Act of Parliament. It was intended that this officer should be a soldier of high attainments, who would be the adviser of the Secretary of State on all technical questions relating to matériel of war. The office of Master-General would, therefore, be revived in part, but made subordinate to the Secretary of State. A fundamental principle of administration—soon to be abandoned—was thus recognized by Lord Northbrook's Committee. The military head of the Ordnance Department disappeared, and was replaced by a minor Parliamentary official, as guileless of professional knowledge as the Secretary of State he was appointed to assist. The inefficiency of the Department having become a public scandal, a Royal Commission was appointed to inquire into the whole system under which warlike stores were procured and supplied to the Army. No after report was ever issued than that of Sir James Stephen. The utter weakness of the system was plainly exposed. It was shown that such a system could not possibly produce efficient or economical results, and definite remedies were proposed in the clearest language. "The office of Master-General should be revived so far as the management of the Stores and Manufacturing Departments is concerned. The Master-General should be a soldier of the highest eminence." In brief, the reform proposed was the re-creation of a strong department under a professional head. This report was issued in May, 1887, and in the following December all trace of a real Ordnance Department was swept away by an Order in Council, under which the duty of "obtaining, holding, and issuing" to the Army all warlike stores and supplies of every description was transferred to the Commander-in-Chief. At

the same time all the ordnance factories were placed under the Financial Secretary, thus divorcing branches of which elementary principles of administration demand the closest union, while a superfluous and expensive office was created, involving four new appointments, and centralizing all the dispersed factories at Woolwich, Enfield, Waltham Abbey, and Birmingham under a Director-General. By a logical and beneficial arrangement, naval ordnance is now paid for on naval votes, and guns are ordered by, instead of being thrust upon, the Admiralty; but this change was assumed to entail the complete separation of stores all over the world, which has now been carried into effect. The result, as pointed out by Sir J. A. A. will be duplication of stores, divergence of patterns, and increase of expense.

From the above it will be seen that the so-called reforms recently accomplished have been of the most radical description; that no single principle of sound administration has been followed; and that, with the exception of the Act of 1870, giving to the Secretary of State control over every branch of Army administration, each successive step has been taken without any legislative action.

The House of Commons, which contains as many men of real business capacity and experience as any assembly in the world, has abdicated the responsibility which it claims in theory, and has acquiesced in sweeping changes carried out in the teeth of the unanimous recommendations of a strong Royal Commission.

The accompanying diagram represents the administrative system of the War Office as it exists after 36 years' *hodgepodge*. Several persons were seriously injured, and had to be taken to the Cottage Hospital. A young man named Bremer has succumbed to his injuries, and several other persons are in a critical condition.

LATEST SHIPPING INTELLIGENCE.

(FROM LLOYD'S.)
WRECKS AND CASUALTIES.

Lloyd's agent at New York telegraphed yesterday morning that the STATE OF CALIFORNIA (previously reported ashore in Buttermilk Channel) had floated and was apparently uninjured.

The IRON DUKE, at San Francisco, reports having passed on Nov. 3, in latitude 31 N., longitude 141 W., a wreck of 600 tons, with cow under water. There was nothing about the wreckage which could assist its identification in any way.

A telegram from Liverpool yesterday stated:—"SILGON, schooner, of Barrow, is off Point Lynas putting into Moelfra Roads, after having struck upon rocks off Point Lynas. Damage, if any, unknown."

The British ship ELLENBRANK, previously reported ashore at Cape Rada, near Batavia, has her back broken.

The three-masted schooner VEGA, from Skelleftea for London, with crew, put into Leith yesterday leaky and with loss of deckload and stern considerably damaged through heavy weather in the North Sea. She will probably go into dry dock for repairs.

The British ship GANTROCK ROCK, from Glasgow for San Diego, with coal, arrived at Queenstown yesterday, with loss of foremast, steering gear damaged, and other sundry damage about deck.

QUARANTINE NOTICE.

Intelligence from her Majesty's representative at Washington states that a notice has been issued by the Governor of Louisiana to the effect that the quarantine restrictions issued by him on April 14 are now removed on and from Nov. 1.

VESSELS SPOKEN.

The steamer CANTON, steering south-east, on Nov. 14, in 36 N., 7 W.
The barque MARTHA REED, bound south-west, on Nov. 5, in 42 N., 14 W.

FOREIGN ARRIVALS.

CALCUTTA, Nov. 17.—ZEMINDAL, Middlesbrough.
ADEMERRARA, Nov. 15.—KING ALFRED, st., Liverpool.
GALVESTON, by telegraph.—FAYLIS, st., Liverpool.
NEW YORK, by telegraph.—CITTA DI ROMA, st., Barry.
LIPIDA, st., Penarth.
NORFOLK, Nov. 17.—SUEZ, st., Swansea.
RIO DE JANEIRO.—STRATHMORE, Caprice.
SAN FRANCISCO, by telegraph.—WRAY CASTLE, Liverpool.
SAVANNAH, Nov. 12.—J. F. WHITNEY, Fleetwood-Tuskar, Liverpool.
TENERIFFE, Nov. 15.—GLONCURRY, st., London, and was to all Nov. 17 for Sydney, N.S.W.

FOREIGN SAILINGS.

HIOLO, previous to Nov. 12.—MICHELLE LAZZARONI, st., Liverpool.
NORFOLK, Nov. 15.—MINTMORE, st., Liverpool.
PORTLAND, OREGON, Nov. 17.—HIGHLAND FOREST, the Channel.

Great Britain, of which he is inspector-in-chief, and, as regards infantry and artillery, sole inspector. Finally, he is responsible for the preparation of the Estimates for all the above services.

Well may Lord Hartington's Commission declare that "the present functions" of the Commander-in-Chief's office "appear to us to be of so varied and important a nature as to make it expedient that they should be sub-divided." To simply catalogue those functions is to demonstrate the incompatibility of the office, in its present form, with the most elementary principles of sound administration. It is inconceivable that any one could consent to serve as Atlas to the War Office except with the full understanding that no real responsibility could be brought home to him, if his burden fell.

The full absurdity of the existing system is, however, not yet explained. Under former conditions the subordinate offices of Adjutant-General and Quartermaster-General were practically co-equal. Both were staff officers of the Commander-in-Chief; each at the head of a separate sub-department. In a state of administrative chaos, any strong personality will inevitably absorb the minor atoms promiscuously whirling near his orbit, thus following strictly the analogy of the nebular hypothesis. The Quartermaster-General's functions appear, therefore, to have dwindled, and in 1887 the Commission on Civil Establishments was informed that "he is merely an officer without really any duties to do. He has been kept up for some time past." The Adjutant-General went on to state, however, that a Committee on the Lines of Communication of an Army in the Field was then sitting, and that "if its recommendations are carried out there will be an immense change in the administration of the Army." How a committee appointed to deal with a mere question affecting the organization of a field force came to handle Army administration was not explained; yet the Quartermaster-General was to be rehabilitated by its agency. "He will be subject to the Adjutant-General," and, at the same time, by a curious confusion of administrative ideas, "he will be responsible for placing the men and officers in a position to

carry out the military duties that they are ordered to perform by the Adjutant-General." In the same evidence, the Adjutant-General was stated to have "under him all the military branches of the Army," and the memorandum based on the Order in Council of the 21st February, 1888, now in force, defines his position as "Chief Staff Officer of the Commander-in-Chief," who "will exercise general control over the duties of the military department, and in the Commander-in-Chief's absence is empowered to act in his name." It is evident, therefore, that the diagram compiled for Lord Hartington's Commission should be corrected as here shown. Directly under the Commander-in-Chief is placed another great military official, nominally responsible to him for all the duties for which he himself is nominally responsible to the Secretary of State. The Adjutant-General is, in fact, a dual personage. As "Chief Staff Officer," he directly controls all the vast and varied departments supposed to be administered by the Commander-in-Chief; at the same time he personally supervises certain of these departments.

Thus, during the reign of the present Secretary of State the War Office has reached the summit of possible centralization, while fictitious responsibility has attained its apotheosis. The fat line—the military authorities—have eaten up the lean line—the old civil departments—and, gorged to repletion, are unable to move. At no period

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An administration, excessively complex and involving many separate departments of State, could not be expected to stand the strain of war, and the breakdown of 1854-5 was the inevitable result. This breakdown and the flood of national feeling which followed provided grand opportunities for sound reforms. These opportunities were lost. The system which had miserably failed in the hour of need embodied some great principles, none the less true because misapplied. The distribution of duties among mutually independent offices of State was doubtless indefensible; but it had arisen from the action of Parliament in asserting its own authority. It at least avoided the evils of centralization. It provided checks upon extravagance. It secured civil control over matters civil in their essence, and it provided special training for the discharge of special duties.

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Great Britain, of which he is inspector-in-chief, and, as regards infantry and artillery, sole inspector. Finally, he is responsible for the preparation of the Estimates for all the above services.

Well may Lord Hartington's Commission declare that "the present functions" of the Commander-in-Chief's office "appear to us to be of so varied and important a nature as to make it expedient that they should be sub-divided." To simply catalogue those functions is to demonstrate the incompatibility of the office, in its present form, with the most elementary principles of sound administration. It is inconceivable that any one could consent to serve as Atlas to the War Office except with the full understanding that no real responsibility could be brought home to him, if his burden fell.

The full absurdity of the existing system is, however, not yet explained. Under former conditions the subordinate offices of Adjutant-General and Quartermaster-General were practically co-equal. Both were staff officers of the Commander-in-Chief; each at the head of a separate sub-department. In a state of administrative chaos, any strong personality will inevitably absorb the minor atoms promiscuously whirling near his orbit, thus following strictly the analogy of the nebular hypothesis. The Quartermaster-General's functions appear, therefore, to have dwindled, and in 1887 the Commission on Civil Establishments was informed that "he is merely an officer without really any duties to do. He has been kept up for some time past." The Adjutant-General went on to state, however, that a Committee on the Lines of Communication of an Army in the Field was then sitting, and that "if its recommendations are carried out there will be an immense change in the administration of the Army." How a committee appointed to deal with a mere question affecting the organization of a field force came to handle Army administration was not explained; yet the Quartermaster-General was to be rehabilitated by its agency. "He will be subject to the Adjutant-General," and, at the same time, by a curious confusion of administrative ideas, "he will be responsible for placing the men and officers in a position to

carry out the military duties that they are ordered to perform by the Adjutant-General." In the same evidence, the Adjutant-General was stated to have "under him all the military branches of the Army," and the memorandum based on the Order in Council of the 21st February, 1888, now in force, defines his position as "Chief Staff Officer of the Commander-in-Chief," who "will exercise general control over the duties of the military department, and in the Commander-in-Chief's absence is empowered to act in his name." It is evident, therefore, that the diagram compiled for Lord Hartington's Commission should be corrected as here shown. Directly under the Commander-in-Chief is placed another great military official, nominally responsible to him for all the duties for which he himself is nominally responsible to the Secretary of State. The Adjutant-General is, in fact, a dual personage. As "Chief Staff Officer," he directly controls all the vast and varied departments supposed to be administered by the Commander-in-Chief; at the same time he personally supervises certain of these departments.

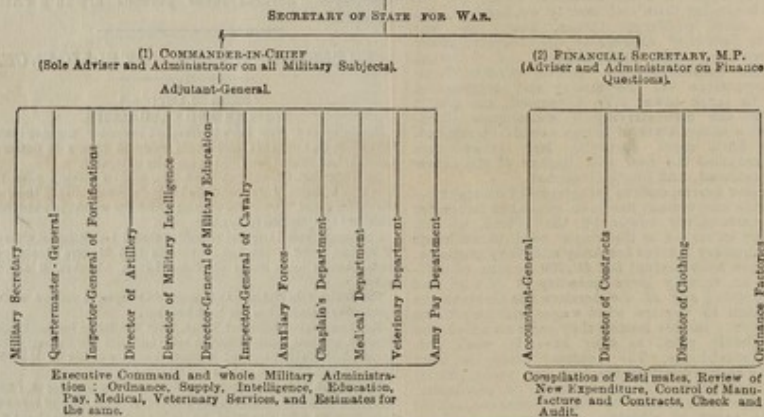
Thus, during the reign of the present Secretary of State the War Office has reached the summit of possible centralization, while fictitious responsibility has attained its apotheosis. The fat kine—the military authorities—have eaten up the lean kine—the old civil departments—and, gorged to repletion, are unable to move. At no period in the previous history of our standing Army have such conditions existed, and they are wholly unknown to all the armies of modern Europe.

In the present War Office machine, every principle of sound administration is violated.

I am, Sir, your obedient servant,
November 17.

VETUS.

DIAGRAM ILLUSTRATING THE ORGANIZATION OF THE DEPARTMENTS AS THEY AT PRESENT EXIST IN PRACTICE. SOVEREIGN.



This diagram differs from that presented in an appendix to the report of Lord Hartington's Commission, the compiler of which appears to have overlooked an important discrepancy between the administration as graphically shown and the table of duties given in his subjoined letterpress.

The main features of the existing system will be readily understood by every one possessing any knowledge of business methods. The whole of the enormous mass of work, for the discharge of which the Secretary of State assumes responsibility, is now divided between two departments—those of the Commander-in-Chief and of the Financial Secretary. The functions of the former are appalling in their extent and variety. He is the sole responsible adviser of the Secretary of State for War on military subjects of every description. Administration and executive command alike centre upon him. Supply of every description, fortification, weapons of war of every class, with all their adjuncts, patterns of every kind of

store, rest upon his decisions. His responsibility extends from questions of Imperial policy to the adoption of a new handspike. He alone can advise upon the measures which may be necessary to reinforce the Army in India for a great national struggle or the plan of operations of a small war. The strength of the 110-ton gun depends upon his fiat, as do the calibre and site of every piece of ordnance in every fortified port at home and abroad. The distribution of the British Army at home and throughout the colonial empire is ruled by his opinions.

The above, however, are only a few of the duties of the Commander-in-Chief. He is responsible for the whole organization, discipline, and training of the Army and its staff, of the Militia, Yeomanry, and Volunteers, as well as of the numerous services which minister to their needs—the medical, chaplains, veterinary, and pay departments. In addition to the administration of these large and various bodies, he exercises direct executive command over all the forces in

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IV.

TO THE EDITOR OF THE TIMES.

Sir,—It would be useless to investigate the causes which have led to the stupendous and unprecedented centralization which I have described. I have to deal with the conditions now existing and to trace their direct results.

The first necessity of a Civil Minister—of any Minister—at the head of a vast and complex system such as that of the British Army is advice of the best kind, given under conditions of the greatest responsibility. "Every purpose is established by counsel: and with good advice make war." The sole legitimate adviser of the Secretary of State at present is the Commander-in-Chief, of whose ability and experience it is no disparagement to say that he understands only a small portion of the questions with which he is assumed to deal, and knows little or nothing of the working of the twelve or more sub-departments which he nominally administers. No other officer, not even the Adjutant-General, who has developed into a second Commander-in-Chief, is charged with any responsibility for advice.

From such conditions certain results only can follow. The Commander-in-Chief is systematically ignored in matters great and small. The Secretary of State is driven to seek advice wherever his fancy turns, and occasionally descends from his pedestal, like a modern Haroun-al-Raschid, questing opinions from the lower ranks of the official hierarchy. Frequently the agency of that inevitable refuge of administrative incapacity, a committee, is called in to recommend a plan of campaign, to organize a force of 20,000 men, or to invent a magazine rifle.

The official record of the Egyptian expedition in 1882 shows that the advice of the Commander-in-Chief was sought for previous to the commencement of the land force campaign; in 1884-5 his opinion is conspicuous by its absence. The official account of the later operations indicates that the Chief Staff Officer addressed the Secretary of State direct, and that, after memoranda had been written by numberless officers of various degree, the final decision was based on the opinion of an irresponsible committee who had seen the Red River. Here was a matter of the first importance, in dealing with which the obvious functions of a Commander-in-Chief should have come into play. There is no trace of any such action, and it is open to any one to believe that he may have disapproved of a plan which led to a splendid display of the endurance and fighting power of the British soldier, and to nothing more. The official history may have purposely kept silence on this point, otherwise it must be assumed that the same irregularities prevail in regard to advice relating to a plan of campaign as in everyday matters of peace administration.

The complete want of responsible advice extends beyond the Secretary of State to the Cabinet. No Premier properly advised would have permitted the bombardment of the forts at Alexandria without waiting the arrival of the ample landing force which was but a few hours' distant. The want of such advice led to

the loss of millions of money and of thousands of lives.

The value of Heligoland to Germany was evidently underestimated at the Foreign Office, which distrusted, or neglected to obtain the opinion of, authorized expert advisers. Evidently the machinery by which advice is supplied must be hopelessly out of gear, or such irregular promptings as are obtained serve only to darken counsel. In either case, it is the system which is directly to be blamed.

The nominal responsibility of the Adjutant-General over the whole of the Army departments, covered by the further nominal responsibility of the Commander-in-Chief, while conferring no advantage, is calculated to destroy all trace of real responsibility in the respective heads of these departments. They can decide nothing without reference to higher authority. Recognizing the advantages of being completely protected by an ascending scale of personages, culminating in the Secretary of State, they naturally avail themselves to the full of fatal facilities for reference. Their powers being undefined, this is obviously their safest course; since to show any tendency to independence of judgment would, under the present circumstances, amount to insubordination. To expect independence from these officials would be manifestly unjust. They are liable to interference at every turn; they have not even a free hand in appointing their own subordinates. It results from this destruction of all responsibility that no reluctance need be felt in accepting any post. A system in which no one is responsible, and no error, however gross, can be brought home to any one, provides a Paradise for mediocrity. Thus, it may be believed that at the present day such an office as that of Director of Artillery would appal the imagination of any one not possessed of wide experience combined with exceptional scientific attainments. This is purest delusion. A smattering of artillery knowledge would amply suffice for the post. The unknown subordinates of a Director will save him from solecisms in such few minutes as he may have to write. All decisions can be referred to higher authority. Since 1887 it is the Commander-in-Chief alone who "is responsible for the patterns to which stores are made." To lay down definite lines of policy, based on definite aims, and to guide the onward progress of artillery correspondingly is not the business of a Director of Artillery, but may possibly be that of the Adjutant-General, of the Commander-in-Chief, or even of the Secretary of State, who, says Sir James Stephen's Commission, "takes up upon his own responsibility, and determines according to his own views, the great questions which arise from time to time." In the absence of all means of obtaining responsible advice from subordinates who have the requisite knowledge, this otherwise remarkable exercise of power on the part of the Civil Minister appears to be justified.

The total absence of responsibility in the nominal head of the Ordnance Department is carried down through all its heterogeneous minor officials. No one has any power; nothing can be done without the signature of some exalted personage, who can have no real knowledge of the state of the case, and as there is no business organization, and no means of bringing practical experience to bear quickly and effectively upon the many questions of detail, the results are lamentable. Such energies as are permissible expend themselves in futile and intricate correspondence, of which misunderstandings and delays are the principal achievements.

The history of the Woolwich gun, and of the insensate adherence, first, to muzzleloading, and, second, to wrought-iron construction, in face of all Continental opinion, attest incapacity in every phase. The present Field Artillery was evolved through a process of drifting, modified by miscon-

ception; it has been introduced after long delay at great expense, and is now far from satisfactory. The all-important requirements of India have been neglected.

The magazine rifle supplies another illustration of the defects of War Office administration. In place of direct responsibility undeniably resting upon the head of a properly-organized department, the matter was handed over to two or three successive committees. By whom were they really appointed? Who drew up their instructions? To whom did they report? As might have been expected from this unnatural method of incubation, an arm has appeared of so imperfect a type that many thousand stand have been returned from India for alterations, which could not there be carried out. The comedy, in a later act, disclosed the Secretary of State personally interviewing the available members of the defunct committee, together with some irresponsible outsiders, thus crowning previous irregularities by ignoring the legalized functions of the Commander-in-Chief.

Smokeless powder seems to be in a condition of similar decrepitude, after long treatment by another committee.

The legitimate sphere of action of these bodies requires to be defined. Are they intended to carry out competitive trials and advise as to selection? Or are they to be permitted to assume the rôle of the inventor? The distinction is important. Both the Small Arms and the Explosives Committee appear to have followed the latter course, which is open to grave objection. A Government *employs* behind the scenes, and able, therefore, to ascertain the mind of the former committee, patented details which may yet throw charges upon Army Estimates. The Explosives Committee became individual patentees, we may hope in the interests of the State; but the patents granted to them must in some degree have appropriated the results of other people's labours, the value of which became apparent during investigations carried on at the national expense. These proceedings divert outside genius from the service of the State, since an inventing committee will unhesitatingly annex ideas not absolutely secured by patent right. In the case of a smokeless powder, the action of such a body may seriously affect the interests of private firms. The inventing committee does not go to the trade for its requirements. The British manufacturer, thus passed over as incapable, finds the prestige of his wares diminish in foreign markets. He has not been allowed the opportunity of serving the Government; hence he loses his trade in other explosives, in which he may excel.

The functions of judge and inventor are wholly incompatible, and the achievements of the War Office in the latter capacity are doubly disastrous to the country.

As in the so-called Ordnance Department, so in all other branches, the want of responsibility of the heads results in hasty and ill-considered decisions, frequently involving large monetary sums. It is stated that sufficient funds to enable the Army to be trained for war are not available, but more than £40,000 is thrown away upon the turret at Dover to cover the original error of its construction.

The Brennan torpedo, the original purchase of which proved almost too tough a morsel for the House of Commons, figures in the Estimates of the year for a further sum of £13,000.

Lord Hartington's Commission state that "no less than seven committees, 'with no common link between them,' have at different times advised the Secretary of State with regard to the defences of Bermuda." What could better illustrate the treatment accorded to such questions? What could indicate more clearly the way in which the national resources are wasted?

From the departments that deal with *personnel* a cold cascade of Warrants and Orders descends

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upon the Army; not only are errors so frequent as to entail endless corrigenda, but both Warrants and Orders occasionally show the want of touch which exists between the Headquarters Staff and the service as a body. This is easily explained. The officers at Headquarters who administer the regular forces have only in the rarest cases commanded battalions; at the present moment there is only one officer possessing this invaluable experience. The manner of these multifarious Army orders involves two incidental disadvantages. Changes of organization and alterations of equipment, clothing, or allowances are flung at the Army promiscuously. The obvious arrangement of promulgating alterations of special kinds at special periods of the year does not seem to have suggested itself. Hence the Army regards its rulers as the slaves of caprice, possessing no stability or foresight, and loving change for change's sake. Such an impression is fatal to all confidence in the administration. Again, these Orders do not disdain to deal with the most petty details, and the result is that commanding officers, thus spoon-fed, rapidly lose all power of initiative and of reliance upon their own individual resources. Such qualities will in time be confined to the lower ranks, who have not suffered from the demoralization induced by a full course of War Office training.

The above are minor evils. It is in dealing with military policy that the existing administration shows its weakest side. Great questions, on the answer to which depend the strength and the organization of the Army, the amount of the peace Estimates now and in years to come, and the fate of the Empire in war, present themselves from time to time. There is no vestige of a department charged with the consideration of such questions. They are either decided off-hand by officials overpowered with the meretricious charms of red-tape, or submitted to the Secretary of State in crude form, thus courting misconception and consequent blundering.

We now have a frontier coterminous with that of a great and eminently aggressive Power. Now and henceforth India supplies the gauge of the military policy of the Empire. It is the possible needs of India which should determine the strength and organization of the British Army. At present this elementary fact has not dawned upon the military advisers of the Secretary of State. The authorities in India, after careful consideration of their requirements, made certain contingent demands upon the War Office; the Government of our Eastern Empire was directed to recast its mobilization scheme excluding the necessary reinforcements. In other words, the British Army must not be counted upon to fulfil the requirements of the nation.

On what principle the strength of the Army is fixed, or to what objects its nominal organization is directed, cannot be stated. A few years ago a paper scheme providing eight army corps was dangled before the public in the "Army List." It has since been semi-officially explained that this was "never intended to do more than expose the weakness of our position."

Sir, this was grim jesting on a dangerous subject.

At present our energies are absorbed in the attempts, hitherto unsuccessful, to create two Germanized army corps and a cavalry division. What this force, when organized, is intended to accomplish is unknown. How it would meet the first military needs of the Empire—those of India—is not apparent.

Every great Army in Europe has a special department charged with the study of questions of this class and presenting them in a form suitable for decision. Great Britain has none. Hence arises a general aimlessness of purpose, and, as General Brackenbury has pointed out, "a want of economy and efficiency." In the absence of such a department, it is inevitable that the Secretary of State and his military adviser

should be at cross purposes. The former stated in the House of Commons that "the establishment of the Army for each year was submitted by the Commander-in-Chief to the Secretary of State," and added that "no demand whatever for the addition of 11,000 men has ever been submitted to me." Yet, at this very period, the Commander-in-Chief and the Adjutant-General publicly proclaimed that this addition was imperatively necessary.

The want of "a central organizing department," which Lord Hartington's Commission recognized, leads directly to other results, which cannot here be detailed. It is sufficient to point out that a much-needed reform carried out by the present Secretary of State—namely, the separation of the unwieldy "regiment of artillery" and the founding of a professional force fit to handle modern heavy ordnance—has been expensively marred by evident want of thought. A new body of nondescript staff officers has been created, whose only functions will be to destroy the responsibility of those who ought to retain it.

Thus, in matters great and small, this intolerable centralization works evil throughout the British Army, destroying the initiative of its officers, annihilating responsibility, rendering incompetence undiscoverable in posts high and low, strangling progress, denying scope to the mechanical genius of the nation, and entailing waste and inefficiency.

In a single sentence, Bacon has gone to the root of all sound administration, "Preserve likewise the rights of inferior places, and think it more honour to direct in chief, than to be busy in all."

Herein lies the secret of ruling an army.

I am, Sir, your obedient servant,
November 24. VETUS.

THE ADMINISTRATION OF THE WAR OFFICE.

V.

TO THE EDITOR OF THE TIMES.

Sir,—In my last letter I pointed out some of the gross evils which directly result from centralization and the consequent destruction of responsibility. It would be an easy task to multiply illustrations, and to carry down the inquiry to the details which affect the life of an army. This, however, is not my present purpose. As in the natural world, so in government of all kinds, effect follows cause with inexorable precision. If the head, which should guide, is paralytic, the whole body down to the most insignificant member will inevitably suffer. Exceptional powers are intrusted to the rulers of military forces, which greatly simplify the difficulties of administration; but such powers, if wielded in ignorance, confusion, or caprice, are utterly powerless to avert demoralization. The administration of an army is purely a matter of business, and while the exceptional code of laws, to which the soldier is subject, separate him from his fellow man, and may appear to involve a specialized form of government, such matters as "supply" conform strictly to the ordinary principles which rule all great civil undertakings. I do not propose, therefore, to trace further the connexion between cause and effect in the administration of the Army and its present lamentable condition. There is not one of the numberless manifestations of inefficiency which is not amply accounted for by the violation of first principles, which is the most striking feature of the existing War Office system. To the minds of business men this will be self-evident. It may, however, be advisable to look a little closer into the working of the machine in the light of such evidence as is forthcoming.

The present Staff at Headquarters appears to consist of about 90 military and 14 civil officials, with 508 clerks (99 military), making a total of about 612 persons, exclusive of messengers. The military officials include no less than 13 generals and 43 officers above the rank of major. The total estimate of the cost of the War Office establishment is given as £257,900; but this figure, like many others annually laid before the House of Commons, is utterly misleading. Only officers drawing special rates of pay appear to be included in the estimates. The "War Office List," on the other hand, indicates a considerable number of attached officers. Again, military pay is annually included in other votes. In order to present a faithful statement of the cost of the War Office, it is evidently necessary to include the total emoluments of every person there employed. Till this is done the published figures are valueless. The number of officials accumulated at headquarters illustrates centralization in another phase. Comparisons cannot be satisfactorily applied when conditions are not entirely similar; but it may be instructive to point out that in India an army of about 208,000 regular troops is administered by a staff of 39 officials of the Military Department at army headquarters, or 61 in all, including the staffs of the Bombay and Madras Armies.

The department of the Chief of the General Staff of the German Army has nothing to do with administration in peace time. The large number of officers there employed has no counterpart in England, except in the Intelligence Division and the Ordnance Survey, which is not now under the War Office. Deducting 12 officers returned as serving in the former, the numerical comparison of officials engaged in the Headquarter offices of the German

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and British Armies appears to be as 78 to 92, and of clerks as 224 to 568. The contrast of results admits of no question. The German War Minister controls and supplies a peace establishment of half a million of men, with trained reserves bringing the war strength of the field army on mobilization up to more than one-and-a-quarter millions, and the total armed and trained force to about three millions. Our War Office directly administers about 137,000 regulars, with 60,000 reservists, and provides unsatisfactory arms of multifarious pattern for a total force of about 677,500 men. The "Auxiliary forces," late so called, may be left out of the account in considering administration, since they appear only to require the energies of one general officer, three clerks, one writer, and a boy.

Comparisons such as the above are necessarily open to challenge, and I am fully aware that I may be met with ready and vague reassertions of the essential difference between the two military systems produced by conscription on the one side and the foreign service entailed upon approximately half the British Army on the other. Conscription admittedly lessens the cost and raises the average age and intelligence of the recruit, thereby accelerating his training; but his German instructors succeed in making him a soldier admirably trained for war in less than three years, and our own troops for the most part have seven or eight years of instruction.

One other consideration remains. The German administration not merely trains a multitudinous army, and provides it with a perfected organization, but equips it with excellent weapons, the cost of which is certainly not less on the Continent than in manufacturing England. Putting aside the chronic defects of the weapons supplied by the War Office, the economical gain arising from the relatively small number of troops requiring to be equipped has never been sufficiently taken into account.

Centralization may possibly be regarded as productive of economy of staffs away from headquarters. If commanding officers can move only when complicated leading strings are pulled from a central office, relatively less intellectual assistance would apparently suffice for their needs. Automata do not require other automata to facilitate their movements. The estimates contradict this view, and Lord Randolph Churchill stumbled upon a piece of sound criticism when he pointed out the disproportion between the strength of the force at the Cape of Good Hope and the number and rank of the officers who locally administer it. These 2,000 troops seem to require a staff in greater numbers and of much more exalted rank than a German division of 14,700 men, and no traceable in such matters. Judging from the estimates, the general staff at Cyprus is slightly more expensive than that at Singapore, one of the most important posts in the Empire, but the "Army List" shows the larger staff at the latter station—thus illustrating the confusion which characterizes all our staff arrangements. That there is a certain necessary relation between the number and rank of officers and the nature and extent of the work to be performed has not yet been grasped in this country. The Punjab Frontier Force, nearly 15,000 strong, an organized body provided with transport and ready for war, has long been effectively administered by a brigadier-general; but a major-general is employed to command 890 men of all ranks at Mauritius. If a general at such a station as Mauritius were learning anything of his trade, it might be worth while to keep him there. As it is he learns nothing except the peculiar methods of War Office correspondence. Not only is the rank thus degraded, but by an easy process of thought such a post comes to be regarded as a sufficient qualification for command in the field or elsewhere.

The Staff with which a German army corps, 57,000 strong, would take the field against Russia or France may instructively be compared with that employed in directing the operations of about 20,000 men against Arabi's fellaheen troops. Neglecting personal staff, the comparison appears to stand as follows:—

German Army Corps, 57,000 men.		British Expeditionary Force, 182, exclusive of base and com- munications. About 20,000 men.	
Generals ..	1	..	2
Lieut.-Generals	0	..	0
Brigadier-Generals	0	..	2
Field Officers	4	..	18
Captains	5	..	6
Schalliers	6	..	0
	18		28

If the ranks of the field officers are compared the contrast becomes still more striking; but, partly on account of the general debasement of rank in the British Army, all grades with us are much higher for equivalent duties than in Germany. There is nothing to prevent a lieutenant-colonel or a major from acting as chief of the staff of a German army corps, in place of the full general we appear to require for a force three-fifths of its strength operating against Egyptians.

It is possible that both Germany and the Government of India, from motives of economy, fix their respective staffs at too low a standard; but between this standard and gross exaggeration there lies an attainable mean.

The British War Office at the present time is not only enormously more heavily manned in proportion to results achieved than that of any European Power, but the relative proportion of the higher ranks of the officers is unexampled.

Two much-needed reforms would automatically follow the establishment of any system of administration which insured the definite responsibility of individuals. No post, high or low, would ever be given as a mere reward for past services, but solely with an eye to the future services which the aspirant might be expected to render to the Army. Thus, high appointments would cease to be treated as good service pensions. Again, the maintenance or creation of appointments in order to provide inadequate duties for superfluous officers in the upper ranks would terminate, and the real nature and extent of the work required would become the sole basis of establishments. It would follow that the modern tendency to attach a special, and almost invariably too exalted, rank to special posts would disappear, with the result of large economies combined with increase of efficiency.

As to the actual interior working of the War Office machine, it is difficult to form an accurate opinion. This array of officials with no defined responsibilities must be largely occupied either with transacting the same business over and over again, or with mutual interference.

Where organization is in a fluid state and mediocrity abounds, it must happen that any relatively strong personality will fix itself upon the subjects to which it is attracted, irrespective of easily-disregarded tables of distribution of business. The obvious irregularities which frequently occur at the head will inevitably have their counterparts all through the subordinate offices; and whether the strong will produces a temporary disturbance or carries influence enough to legalize its aims, the result is chronic instability.

In place of steady currents setting in known directions, there are only vortex rings, whose movements are unexpected and capricious. Thus, the fate of any question, however important, appears to depend mainly on the route it may chance to take in its long and devious course through the labyrinth of the War Office.

I do not intend to investigate the causes of the enormous expense of the Army in proportion to the pitiful results obtained. There is no single great leak, but a vast number of small ones, producing an almost incredible annual waste. Sir J. Stephen's Commission states:—

In order to make an economical provision for efficient service it is necessary to have clear answers to three distinct questions. (1) What do we want? (2) What is the

least price at which we can get what we want? (3) How much of what we want can we afford to buy this year? To the first of these questions our present system gives no answer at all. The second and third are practically answered in a most confused way by the result of the undignified scramble above described. Extravagant demands are met by arbitrary reductions.

These plain words were written with regard to the Ordnance Department; they apply to the whole existing military system. The first question cannot be answered until the Cabinet has decided for what purpose the British Army is maintained, and to what ends its organization should be directed. But no Cabinet is in a position to decide this great national question without reasoned and responsible advice, in place of which the War Office is merely able to provide unreasoned and irresponsible surmise, swaying from side to side in accordance with individual opinions and ambitions. Thus the first step which must be taken is the establishment of a rational administration. From such an administration unexpected economy will result. Officials on whom direct responsibility rests, and to whom failures and delays can be brought home, will find means to prevent waste. Superfluous personnel and matériel will prove to be in the way; hasty and ill-considered decisions involving extravagances will be impossible.

When the Khalif at Mamoon was hewing his way into the Pyramid with axes and with fire, the inscription stood haunting him, "It is easier to destroy than to build." From the earliest time criticism of an existing system has been a facile task compared to that of framing one which shall prove equal to the requirements made upon it. Nevertheless, such systems have been framed by other nations, and what is possible alike to a first-class Power such as France, and to a small and poor country such as Switzerland, cannot be impossible to Great Britain.

I have shown the errors of principle which run through the whole structure of our War Office administration, and I have given examples of the results which that administration produces. Such examples were mere haphazard selections from a galaxy of blunders, palpable to the veriest tyro in military matters. Excessive expenditure, unwarrantable waste, dire inefficiency, and unreadiness for war are the charges brought against those who, responsible for everything, plead responsibility for nothing. I assert that the connexion between cause and effect is indisputable, and that the present disastrous condition of the Army, which is guessed at by civilians and known to all executive officers, can be distinctly traced to a system radically faulty. The old words stand true in this case as in all, "Can men gather grapes of thorns, or figs of thistles?"

In a final letter I propose to indicate a system of administration by means of which an army capable of fulfilling the national requirements can be developed.

I am, Sir, your obedient servant,
Dec. 2. VETUS.

THE ADMINISTRATION OF THE WAR OFFICE.

VI.—CONCLUSION.

TO THE EDITOR OF THE TIMES.

Sir,—All efficient systems of administration conform to ascertainable principles. Such principles are independent alike of forms of government, of the nature of undertakings, and of the extent of the monetary transactions involved. They are eternal; their violation inevitably entails disorganization, inefficiency, and waste.

The responsibility and power of individuals must be defined; neither must ever be dissociated from adequate knowledge and experience, or permitted to be degraded into mere formality. This entails grouping of business into departments, each under a responsible head, such grouping being based upon the co-relation of services, and limited by the amount of work which one man can efficiently supervise. Sub-groupings—the drawing of horizontal lines across the diagram—necessarily follow, in order to allow the focusing of business at earlier stages, and to relieve the head of the department of everything with which a responsible subordinate can deal. In this way only is it possible to create a real chain of responsibility, and to conduct business with efficiency and despatch. The War Office method of forcing questions through a succession of officials of increasing rank, and, perhaps, decreasing knowledge of the matter, leads directly to mistakes and delays. No official, unless formally charged with duties in relation to a given subject, should be permitted to intervene. Responsibility can thus be apportioned to individuals—policy to heads, details to subordinates. Nothing should be done at the central office which can be better dealt with locally; delegation and decentralization of power are paramount objects. Correspondence should follow fixed and unchanging lines, should be reduced to a minimum, and should never supplant personal conference. Decisions should be recorded in the name of the official responsible for making them. The working of the system should be tested by efficient inspection. These things are among the axioms of sound administration; all appear to be neglected at the War Office.

The London and North-Western Railway may be taken as an example of an excellent administrative machine, manipulating in each year a revenue of ten and a half millions sterling, and dealing with more than 55,000 men, whom it trains successfully for difficult and important duties. "The secret of organizing the management of a great service, such as this," writes Mr. Findlay, "is nothing more than a carefully-arranged system of devolution, combined with watchful supervision." Decentralization begins at the head, when the whole mass of business is divided up amongst six committees of the Board. The executive management is vested in three officials—the general manager, chief goods manager, and superintendent. Administration is carried out by dividing the line into ten sections, each under the control of a district superintendent. Monthly conferences of the principal officers are held, under the general manager and the chief goods manager respectively, at which all matters relating to these two great departments are discussed, and recommendations are framed and printed for the approval of the Board. The system of inspection is complete, "nothing is left to chance or to the possible carelessness of subordinates, but a jealous watchfulness is constantly exercised to insure that all the necessary precautions that experience has dictated and authority has laid down are thoroughly and effectually observed." Such, in brief, are the

principles upon which one of the most successful undertakings of the age is based. This great railway system annually conveys fifty-seven million passengers and thirty-six million tons of goods. If it were administered on the lines of the War Office, where correspondence is indiscriminate, devolution unknown, centralization supreme, and inspection a farce, the certain results would be a holocaust of passengers and swift bankruptcy.

Following the analogy of the administrations of all great Powers, of India, and of private corporations, I have sought to frame a system which embodies great principles, conforms to the ordinary methods of business, and which, if carried out, would in time remedy the ills under which the British Army helplessly labours. The accompanying diagram will explain the general features of such a system:—

governors of the society.—The Duke of Rutland, the Earl of Dartmouth, the Earl of Portsmouth, the Hon. W. E. D. Smith, M.P., and Sir A. W. Neeld. Ninety-nine candidates were also elected as members of the society.

Sir Nigel Kingscote reported from the Finance Committee that the final result of the society's Doncaster meeting was a profit of £103 17s. 8d., as against a deficit of £2,197 at the Plymouth meeting. He observed that this result, as the balance was on the right side, could hardly be described as unsatisfactory, but, considering the special efforts that were made, particularly by the railway companies, to attract visitors to the show, it was in some measure disappointing.

Mr. Warren brought up from the Chemical Committee a recommendation as to a resolution passed at the recent International Agricultural Congress at the Hague on the subject of adulteration of food, and suggesting the formation of an international convention, and it was resolved that this matter should be brought to the notice of the Board of Agriculture.

Mr. Whitehead, on behalf of the Seeds and Plants Diseases Committee, presented a report on the result of the potato experiments carried out during the past season. He stated that the experiments had been satisfactorily concluded, but that a single year's work did not supply data on which generalizations of any value could be based. The experiments showed, however, that the "bouille-Bordelaise" had not prevented the disease in any of the localities, though it had decreased the amount of disease in the plots to which it had been applied, and had decidedly increased the yield of tubers.

It was resolved, on the motion of Sir Jacob Wilson, that Mr. Charles Whitehead should be nominated to act on the provisional committee for a proposed international fruit exhibition to be held in London next year.

Sir John Thorold reported from the Veterinary Committee that in the course of the 12 months during which the Pleno-pneumonia Act has been in operation (September 1890 to September 1891) 297

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To advise the Secretary of State in an individual and in a collective capacity, five heads in the War Office are provided—three military and two civil. These high posts are filled by selection, on the responsibility of the Cabinet, which now appoints judges, bishops, and commanders of armies in the field. The chance of ill-advised or of interested selection will certainly be no greater in the one case than in the other. No Cabinet will dare to appoint, no Secretary of State for War will dare to nominate, incompetent officers for positions which carry great and direct responsibility—officers who will be the sole advisers in matters relating to their respective spheres.

The five members of the War Office Council are co-equal. Of the three military members, the General Officer Commanding-in-Chief and the Chief of the Staff of the Army are appointed for five years, with a possible extension of two years as a maximum. The Master-General has a five years' appointment, renewable for a

similar term. All these posts carry the acting rank of general, and there is nothing to prevent their being held by officers of lower grade, if specially fitted for the duties. Thus the tendency to estimate genius in proportion to military rank—that curse of all armies in which selection is inoperative—would be averted. Neither military rank nor success in the field necessarily implies administrative capacity.

The five heads in the War Office are directly responsible to the Secretary of State for the administration of their offices, in which every new subordinate is appointed on their recommendation. They are the sole responsible advisers of the Secretary of State on all questions relating to their departments, and they alone have direct access to him. In grouping duties under the five heads, I have followed well-established precedents. In the armies of all great Powers, and in India, supply is kept entirely separate from matters of personnel. This essential distinction was preserved at the War Office until the recent disastrous innovations. Again, every great Power in Europe has a Chief of the General Staff, whose special functions are to watch over the organization and the preparation of the army for war. This officer was regarded as necessary by the great majority of Lord Hartington's Commission.

The five departments stand as follows:—

1. *The General Officer Commanding-in-Chief* is solely responsible to the Secretary of State for the personnel and discipline of the whole of the combatant branches of the Army. The recent absurd attempt, which the Duke of Wellington would have opposed with all his strength, to mix up questions of finance and estimates with these duties is swept into deserved oblivion, as also is the monstrous system, strongly condemned by the Royal Commission, of vesting in the War Office the executive command of the troops in Great Britain. The command of these troops is conferred upon a general officer. All general officers commanding at home and abroad report to the General Officer Commanding-in-Chief, through the Adjutant-General; but increased powers are conferred upon them, and they carry out, on their own responsibility, everything on which a reference to head-quarters is not absolutely necessary. The General Officer Commanding-in-Chief will inspect the forces, not only in Great Britain and in Ireland, but also in the Mediterranean. High officials of the head-quarter staff will no longer take the field on every opportunity. In the event of a great war, the General commanding in Great Britain, being originally selected with that object, would assume command; his experience, gained by actually handling troops at manoeuvres, will enable him to feel and to inspire confidence. The command of minor expeditions would naturally fall to the General Officer at Aldershot. The Chief of the Staff of the Army and a portion of his officers would serve in larger expeditions, a portion only of his staff in smaller wars. No other officer would leave the duties of his appointment, and not only would dislocation of administration be prevented, but the promiscuous descent of unfamiliar officers upon a field army would cease.

In accordance with the German organization, Inspecting-Generals of Cavalry and of Field Artillery are appointed, who report direct to the General Officer Commanding-in-Chief. All appointments and selections up to regimental commands are made on the recommendation of that officer, who, conjointly with the Chief of the Staff, recommends the selection of general officers.

2. *The Master-General of Ordnance* is responsible to the Secretary of State for manufacture, supply of all kinds, and for transport. He is responsible for the preparation of his estimate, which is separately presented to Parliament. Portions of his great and important duties are grouped under the Director-General of Artillery. The Master-General might be provided with a naval assistant, to facilitate communication with

THE ADMINISTRATION OF THE WAR OFFICE.

VI.—CONCLUSION.

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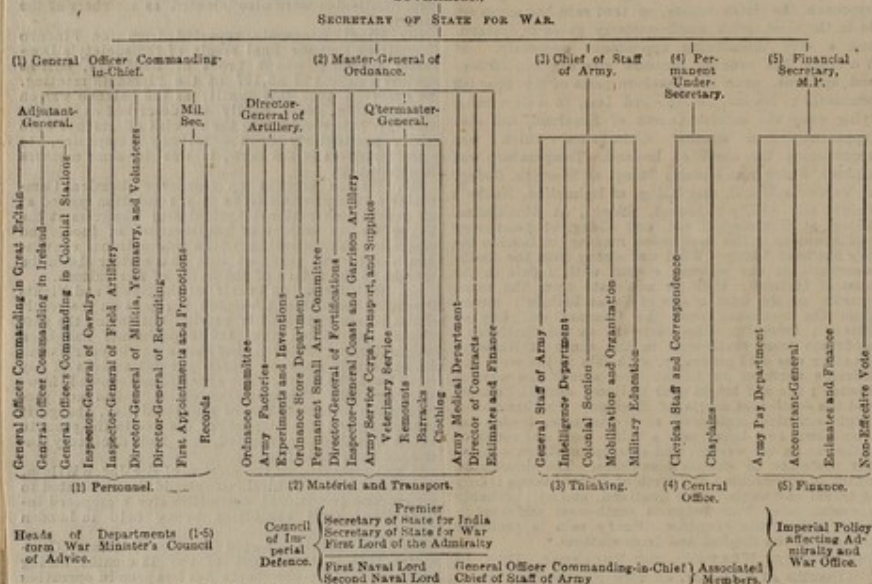
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DIAGRAM ILLUSTRATING PROPOSED ORGANIZATION OF THE WAR OFFICE.



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the Admiralty, watch over naval interests, and avert the misunderstandings which correspondence frequently creates. The Quartermaster-General, among other duties, supervises the Army Service Corps, which will then again take its proper position in relation to the Army—the position allotted to analogous bodies in every civilized military force, as well as in our own till the dangerous change recently introduced. For the same reasons the Army Medical Department—a purely civil body—has been transferred to the department of the Master-General. A permanent Small Arms Committee, necessary in all respects, is added, as in Germany.

3. *The Chief of the Staff of the Army* is responsible for the "thinking" branch of the administration, to employ the apt phrase used by General Brackenbury in his evidence before the Select Committee of the House of Commons. All reforms in organization would be considered, if not initiated, by him. He is further responsible for advice as to the general standard of defence of all ports, at home and abroad, and for plans of mobilization. There is a special section in his department, whose duty lies in watching over the requirements of the Colonial troops, a body growing in numbers and efficiency. Their importance seems at present to be under-estimated at the War Office, where the Intelligence Branch alone appears to acknowledge their existence. The education of the Army and the Intelligence Department are under the Chief of the Staff, and he administers the General Staff.

4. *The Permanent Under-Secretary*, as the chief of the bureau of the Secretary of State, is responsible for the administration of the clerical staff of the office and of the Chaplains' sub-department. The regulation, distribution, and central registry of correspondence rest with him, and letters to and from all other State offices pass through his hands.

5. *The Financial Secretary* retains his existing duties, except that the Ordnance Factories and the Director of Contracts are naturally transferred to the Master-General, and that the Army Pay Department—a purely civil branch, however it may be recruited—is administered by him. He is responsible for financial order within the War Office, for audit and account, and for the framing of all estimates, except those of the Master-General.

These five principal officers, forming the Secretary of State's council of advice, will be able to support even a newly-appointed Minister, collectively as regards military policy, individually by expert knowledge of the needs of their respective departments. All proceedings and decisions of this council are to be recorded in print. A decision having been taken and approved by the Secretary of State, the whole responsibility for carrying it out rests upon the heads of the departments concerned. The three military heads each address annual reports to the Secretary of State, which, if called for, will be presented to Parliament.

Great questions of Imperial policy arise from time to time; many such now require settlement. To meet this requirement a Council of Imperial Defence, under the Prime Minister, is provided, with four associated representatives of the Admiralty and War Office. Such representatives have no vote, no power, and no responsibility except for advice given. They are added to the Council in order to bring the Cabinet face to face with professional opinion. Had such a Council existed in 1884, General Gordon might have been saved.

The same four officers form a permanent inter-departmental committee, for dealing with minor questions jointly affecting the Navy and Army. By this means, and by communication between the Chief of the Staff and the First Naval Lord, as proposed by Lord Hartington's Commission, ample facilities are provided for the exchange of opinion between the administrations of the two

Services. Much has been written as to the necessity for planning "combined operations" between the Navy and Army. The term has an attractive sound, but, on examination, proves to have little meaning. In the case of a nation so circumstanced as ours, little or nothing of value can be done in this direction. If the Navy and the Army are alike ready for war, the Imperial needs will be readily met, and "combined operations," when they become necessary and possible, can be effectively organized.

Correspondence between the five departments of the War Office is rigidly restricted. Personal conference replaces futile discussions on paper, which lead only to verbal misunderstandings, obstruction of business, and inflation of establishments. All decisions taken by the Secretary of State are, however, transmitted in writing or by printed minutes to the head of the department concerned, thus conferring authority upon him, and distinguishing that authority from the powers he wields in his own department. The importance of correspondence, duly regularized, cannot be overrated, and in order to convert the War Office into a State administration, capable of efficiently conducting business, a complete revision of the existing system is imperatively demanded.

One other vital point remains to be noticed. The general outlines of the reformed administration, the powers, responsibilities, and position of the heads of departments, and the main grouping of business should be laid down by Act of Parliament. In the future it must be rendered impossible for a Secretary of State, however well-intentioned, to rear, on his own authority, without the previous knowledge of Parliament or the country, such a crazy edifice as that shown in the diagram attached to my letter of the 19th of November. Changes outraging great principles must not be within the power of a single Minister, acting on casual and irresponsible advice. On Parliament alone, which contains members perfectly capable of understanding matters involving no military technicalities, should rest the responsibility for organic alterations in War Office administration.

The outlines of my proposals have now been given. When the distribution of business and the responsibility of the heads of departments are fixed, the details can be filled in by any one with a grasp of administrative methods. It will scarcely be asserted that these proposals are not sufficiently definite, or that they do not constitute a real attempt to remove the intolerable evils which I have previously described. A tremendous responsibility rests upon the Secretary of State for War in regard to duties which, under present circumstances, he is impotent to discharge. I have shown how he can be provided with advisers, to whom direct responsibility for advice and for administration can be brought home. At the same time, the independence of the Minister is made as complete in practice as Lord Hartington's Committee states that it is in Constitutional law. Following the general lines laid down by a Royal Commission, whose report nestles peacefully in its pigeon hole, I have gone further than the report in the direction of definition of duties, yet not so far in that of innovation. Mr. Campbell-Bannerman need not fear that such a Chief of the Staff as is now proposed can become that War God which his imagination has pictured.

I am aware of the criticism with which these proposals will be met. It will be said that the establishment of coequal heads of departments would conduce to friction, thereby implying that officers of the British Army are incapable of the loyalty to an administration shown by the Naval Lords of the Admiralty, by civilians of every degree, and by the military officials of other Powers. It will be argued that responsibility cannot be dissociated from complete command of the purse, as if large and small sums were not alike capable of being well administered. To the many who proclaim that the Army requires

only more and ever more money, the reply is obvious—"First, produce an efficient army, however small, in return for the vast sums annually intrusted to you. Then, if it is proved necessary, and you are proved worthy, the country will willingly intrust you with more." The hopeless class of persons who affect to trace the ills of the Army entirely to our system of Parliamentary government are beyond the reach of reason. Must we assume that they prefer a constitution like that of France, which at least has created an army beyond the wildest dreams of the Second Empire?

Sir, my task is accomplished. Advisedly I have refrained from touching upon questions of organization or supply of men. The latter is a question of the labour market, and when the aggregate yearly waste, the superfluous staffs and superior officers, and the abuses of the good service pension list have been abolished, funds will be available for increase of pay to such portion of the rank and file as it may be desirable to retain, to leave the mass of generally young soldiers. I do not for a moment pretend that the adoption of the administrative reforms which I urge would at once provide the nation with a well organized army, trained and equipped for war. A species of moral regeneration must first be accomplished. Present habits of thought and present prejudices must be submerged in a widespread patriotism, which places the national good above every personal consideration. It is this sentiment which lies at the root of the military greatness of Germany. I do assert, however, in the strongest terms, that no such regeneration, no efficient and trained army, no economy of the national resources, are possible until the administration of the War Office has been placed on a sound basis. Till this work is accomplished no addition to Army Votes will amend palpable evils, and none should be permitted.

I regret that I have been compelled, as the result of my investigations, to touch many susceptibilities and arouse many resentments. This was inevitable. There are times when patriotism demands that truths, however unpleasant, shall not be shirked. Effective War Office reform will never arise from within, and the only lever available is that of educated public opinion, to which I therefore appeal.

In the earnest desire that the Army may be freed from the Nessus shirt of maladministration, under which its very life is being destroyed, these letters have been written.

Your obedient servant,

December 8.

VETUS.

THE UNREADINESS OF ENGLAND—
CONCLUSION.

TO THE EDITOR OF THE TIMES.

Sir,—The two propositions which I have endeavoured to establish are—first, that we pay nearly 20 millions annually for the main purpose of insuring a second or inner line of defence against invasion, and that, owing to mismanagement, that object is not secured; secondly, that the most likely way to secure it is by placing at the head of the War Department a first-rate business man with a mandate from the people to reform the administrative machinery of the Army.

A possible invasion of England or Ireland is a hypothesis which one is bound to assume, and it is idle debating the points whether or no such an invasion is feasible. The proposition that England would have been invaded by the French in the great war, had the undivided energy of France been concentrated upon the operation, has been ridiculed. It was not my opinion put forward without authority. For it happened that the Duke of Wellington, who was not in the habit of speaking at random and was not qualifying for an official apologist, wrote in the month of March, 1811, to Lord Liverpool a despatch which contains this passage—

"From what I have seen of the objects of the French Government and the sacrifices they make to accomplish them, I have no doubt that if the British Army were for any reason to withdraw from the Peninsula, and the French Government were relieved from the pressure of military operations on the Continent, they would incur all risks to land an army in His Majesty's dominions. Then, indeed, would commence an expensive contest; then would His Majesty's subjects discover what are the miseries of war, of which, by the blessing of God, they have hitherto had no knowledge; and the cultivation, the beauty, and prosperity of the country, and the virtue and happiness of its inhabitants, would be destroyed, whatever might be the result of military operations. God forbid that I should be a witness, much less an actor, in the scene."

These words were written, it is worth while to remember, 16 years after Hoche's abortive attempt and five years after the battle of Trafalgar. Still, I have no wish to put forward the Duke of Wellington as an overwhelming authority against eminent naval publicists.

And if competent authorities decide that a second line of defence is not required and that the Navy is all sufficient I shall not complain. Far from it, for then, as a taxpayer, I should rejoice that the country could be relieved of the enormous burden of war expenditure upon the Army which is now contributed for that purpose; since no one would, I imagine, contend that 20 millions is the fair and reasonable cost of providing depôts for the recruiting of our Indian Army, the charge for the maintenance of which is borne on the Indian Estimates. Nor, I imagine, would any one argue that the Army is kept upon its present footing for the purpose of taking part in campaigns on the Continent of Europe against a Continental Power.

It is sufficient for my purpose to show that attempts have been made to invade these islands. And if those attempts have hitherto failed, the chances of war—proverbially fickle—may on some future occasion crown similar attempts with success. It is eminently desirable that men who are not soldiers, but who have a voice in the government of the country, should clearly comprehend that their interests are in this matter neglected—either that they pay exorbitantly for an inadequate machine, or, what is more annoying still, for a machine which is altogether superfluous.

It is fatuous to lay the blame upon this Government or upon that. Nowadays the people have the decision of these matters in their own hands. Through the Press they obtain wider knowledge of all the details of administration than was vouchsafed to members of Parliament in the days before 1832. They have the knowledge and the power to make use of it. When one of the first military authorities in Europe, thoroughly conversant with our system of administration, says, "nothing will be done until England has met with some terrible military disaster," it is a

reflection upon the good sense of the English people and their capacity for self-government.

It is true, no doubt, that the Crimean disaster induced Russia to reorganize her military system; that Austria learnt at Sadowa the lesson which France received at Sedan. It is true that the terrible memories of Jena enabled William I. to establish the Prussian Army upon its victorious footing. But we flatter ourselves that we are not as these other nations are, and that we are governed by reasoning and by discussion, and are open to conviction by both these methods, without the more primitive necessity of object lessons.

If this is in reality the case, enough, surely, has now been urged and proved to induce public opinion to insist upon some change being made.

There is a certain class of persons who consider themselves monopolists of all practical virtues, who hold that criticism is valueless which is not rounded off with a schedule of proposed remedies. But this is to mistake the functions of criticism altogether.

There are many objections to proposing remedies in detail, not the least grave of which is that discussion at once veers from the existing state of things, which is the real point, to fault-finding with the proposed remedies. Doctors disagree, and meanwhile the patient quietly relapses into the old depraved habits. The fate which befell the report of Lord Hartington's Committee is an example of this human weakness. Endless trouble was given and pains taken in preparing that report. It was stillborn. Every military authority had some fault to find with it, and the few shreds left were scattered to the winds by the official civilians and the Treasury.

It is not by committees or through commissions that the necessary work of reorganizing the War Department can be done. Doubtless the evidence collected by such means is of great value. But reform, if it is to be carried out, must be born—as all effectual reforms always are—of the volition of one capable man, stimulated by the demands of the public.

There have been in recent years men of great ability at the head of the War Office. But they went there to administer, not to reform. And it is absurd to suppose that any Minister can reform a great Department of State on his initiative alone. However powerful, he is sure to be overborne by the stolid phalanx of officialism, backed up by the Treasury. He must have, to support him, an active public demand. Then the odds are reversed, and if he has a policy and is himself steadfast he can carry it into effect. It follows that, in their own interest, the English people should be roused to a full sense of the ineptitude of their position. Of what use is it to be a nation of shopkeepers if we cannot even insure a proper relation between the price paid and the value received? It ought not to be difficult for a Prime Minister to find a man of first-rate business capacity, who, in true commercial spirit, would put the War Department upon a business footing at least worthy of *une nation boutique*.

It would be a mistake to imagine that no public department is as well organized as the first of great commercial houses. Possibly, several of the public offices fulfil this condition. One of them certainly does. Perhaps the India Office has benefited by the ancient commercial tradition of the company, but a Minister passing from the India Office to the War Office cannot fail to be struck by the superiority of the former in system, arrangement, and organization. It would be most unjust to reflect in any way upon the loyal, laborious, and very able officials in Pall-mall. Their services are rendered to the State as well as they can be under existing conditions. It is not they, but their organization which is responsible for the shortcomings of their department. A fatality seems to linger about all Ministers of War, tending to their demoralization. The War Office of Carnot—and later of Napoleon—test its organization how you will, even to the "Morning States" of armies scattered over Europe, was extraordinarily capable. Yet M. Freycinet knows to what condition it was reduced in the spring of 1870, and how hopelessly lost

the old tradition seemed to be. With experience of both offices, he is aware how far better organized 15 years ago was the Ministry of the Interior than the War Office of that day. It is, of course, now no longer the case.

In the Government of India, may be seen, on a gigantic scale, a model of what good military organization should be. No Government in the world of such vast dimensions is so highly centralized. And yet in none is decentralized responsibility more completely established and fostered.

The permanent Under Secretary of State with his council of experts resting upon departments, such as the secret and political or the finance departments, officered by men of first-rate experience and training, form a headquarter staff quite as able and efficient in its sphere as that of the German Army. The Indian Government make mistakes, no doubt. No one expects administrative infallibility. But considering the vast business of governing the Indian Empire, singularly few mistakes are made. And the secret of the unquestioned success of Indian administration is wide local and individual responsibility, gradually narrowed and centralized round a body of trained experts under a chief, who stands in a relation to the whole great Civil Service similar to that occupied by a civilian War Minister like M. Freycinet to the Military Bureaucracy of France, and similar theoretically to that occupied by Mr. Stanhope in this country.

It is rash to institute comparisons, because controversial points arise which draw attention away from the main point, but anyone who had the privilege of observing the conduct of the Afghan war in 1880, and subsequently the expedition for the relief of Khartoum, learnt a lesson not to be forgotten. I do not wish to compare the difficulties, or risks, or dangers, or successes, or failures, but I refer merely to the smoothness with which the official machinery worked on the two occasions. On July 28, 1880, the disaster to General Burrows happened. On August 3 Sir Donald Stewart was ordered to despatch General Roberts from Cabul to Candahar. On August 8 General Roberts and his force left Cabul, with the well-known result. All the preparations for reinforcements—fortunately unnecessary—to be sent to the Khyber were made without friction or difficulty by the Indian Government. The force under General Roberts was a model of efficiency and equipment. Yet if that piece of work had had to be carried out under the auspices of the War Office, it is exceedingly doubtful whether the unquestioned skill and talent of Lord Wolseley and the unrivalled energy and force of character of Sir Redvers Buller could have triumphed in so short a space of time over the ill-regulated, badly fitting machinery with which they would have had to contend, and with which they in point of fact did contend four years later.

Eminent naval publicists and others may assert, or endeavour to argue, that the assailants of the present system, under which England achieves so moderate a degree of readiness for war, with a maximum of expenditure, grossly overstate the case. At the same time, just as in 1888 there was not a practical sailor who was not uneasy about the efficiency of the Navy, so now there is not an experienced soldier in Great Britain or in India whose experience does not convince him that the organization of the British Army is sadly defective.

But, it may be said, the services are notoriously pessimistic. Well, that may be to some extent true. But I am confident, and although this is a mere dictum, it has been more than proved by the evidence taken before Lord Hartington's Committee, that no intelligent commercial man could be for six months at the head of the War Office without becoming aware that any commercial enterprise constructed on similar lines and in a similar spirit would be doomed to failure. In the sense that he had had experience of this office, the loss to the country at the present time of Mr. W. H. Smith is irremediable.

There may be differences of opinion as to the constructive quality of Lord Randolph Churchill's statesmanship, but as to his critical acumen there can be

no doubt, and when Chancellor of the Exchequer he fully grasped the absurdity of having to make himself responsible for the details of military requirements, when by the nature of his office he could know nothing of the reasons for or against them, other than could be communicated to him in a hurried interview by the Minister of War.

I recollect to have seen estimates drawn up after long and careful consideration by the Secretary of State, submitted by him to a sort of extemporized committee of irresponsible Treasury officials, who accepted and rejected the several items as appeared to them desirable. The sense of responsibility under such circumstances rests very lightly on the Secretary of State.

That some control must finally be exercised by the Chancellor of the Exchequer over the total sums expended by the great spending departments is doubtless necessary. But the system under which this control is exercised at present is destructive of good administration.

These and other criticisms may be met in two ways. Either by an earnest wish on the part of the Government of the day to take advantage of public attention, usually languid, which is for a while directed to questions of defence, or merely by taking refuge in flippant official optimism. Mr. Brodrick sees no other use to be made of the powerful indictment of your correspondents than to draw the miserable political inference that Lord Hartington was an incompetent War Minister, and Mr. Stanhope a heaven-born administrator. It is to be hoped the spirit in which minor officials view the assistance offered them from outside does not animate their superiors. Certainly it is not shown by the best informed and most competent officers in the Army, and on the Staff, who feel very bitterly that intelligence and hard work under the present system bring no adequate results.

It may be said that there is nothing very new in all this; that it has all been said before many times. That may be true. But Government by discussion in a democratic form does not provide much novelty in the way of topics or treatment. The public head is portentously thick, and it is only by endless perseverance in repetition that any great abuse has been swept away.

Some abuses can co-exist with the safety of the commonwealth. Experience does not encourage the belief that with a disorganized military system, a Power with anything to lose which is coveted by others, can for long escape disaster.

I remain your obedient servant,
REGINALD B. BRETT.

"Times" 15 Dec. 1891
THE BRITISH ARMY.

I.
TO THE EDITOR OF THE TIMES.

Sir,—A considerable amount of discussion has recently taken place in the Press as regards the administration, duties, and condition of the Army. Having had experience at the War Office, and having also studied the recruiting and other problems connected with the service, I shall feel obliged if you will allow me to offer some remarks on these complex questions.

The subject may be conveniently classified under three heads:—1. War Office administration. 2. The duties of the Army. 3. The recruiting question and foreign reliefs. I propose to deal shortly with each in succession.

As regards War Office administration, the matter has been so recently investigated by three Royal Commissions, and the main issues are now so clear, that it is not necessary to do more than recapitulate the salient points of its past and present condition. For many years preceding the Crimean war the administration of the Army had practically been in the hands of two distinct de-

partments, each under an experienced officer of the highest rank. The Commander-in-Chief, usually a peer, had charge of the personnel of infantry and cavalry, and was represented in the House of Commons, for financial purposes, by a Secretary at War, sometimes a civilian, sometimes a soldier. *Matériel*, that is, arms, armaments and stores (naval and military), fortifications, barracks, &c., were under a Master-General of Ordnance, usually a member of one of the Houses of Parliament, and often in the Cabinet. He was assisted by a Board, most of whom were professional men, and some in the House of Commons. Therefore, although the administration of the Army was of a dual character, it will be observed that it was in conformity with the requirements of Parliamentary government.

During the Crimean war in 1855 these arrangements were hurriedly put an end to, and a War Office was created under a Cabinet Minister. The dual system hitherto existing thus disappeared, but with the result that the power formerly exercised by two experienced military officers was transferred to a civilian Minister, liable to frequent change, and directly under Parliamentary control.

In 1870 the late Lord Cardwell reorganized the War Office, in so far that he divided it into two main departments of personnel and matériel, each under military officers. This was in effect a partial return to the former system, and was successful in defining responsibility and simplifying procedure. But in a few years the essential principle of placing each department under officers of high rank and experience was lost sight of, so far as matériel was concerned, and it became a purely political office in the hands of a civilian. This weakened the structure. Two Royal Commissions in 1887 pointed out the danger, and both strongly recommended that the department connected with matériel and supply should remain a distinct branch of the War Office, and be replaced under military authority. Their advice, however, did not prevail, and in 1888 the whole department was broken up, the nominal responsibility being transferred to the military branch, whilst the real power became vested in the Financial Secretary. The Ordnance Store Department is now also in course of being bisected, which will lead to additional cost and to confusion in war. In 1889 Lord Hartington's Commission, whilst condemning the changes made the previous year, confirmed the recommendations of the Royal Commissions of 1887 as to the necessity of separating personnel and matériel, and of placing both under experienced military officers.

I have thus endeavoured as concisely as possible to give an outline of the past history and present condition of the War Office, and it is evident that a change is necessary. The question, though difficult, is constitutional rather than military. Successive Governments and Parliaments have decided that the Army is to be supervised by a Minister, usually a civilian, liable to frequent change, and whose policy is to be regulated by discursive debates in Parliament. That may or may not be a strong arrangement; but the duty of all is to work loyally, and, taking things as they are, to do the best that can be done. I have the honor to be, Sir, your obedient servant,
MIDLAND CIRCUI.

The prosecution: Mr. Humphreys for the defence.
Mr. Thompson (instructed by the Treasury) appeared for the prosecution (instructed by the Treasury) appeared for the defence.
The defendant, to defend and defend his creditors, passed the highest sentence permitted by the Act—viz., that he should be imprisoned with hard labour, for a term not to exceed two years, with or without wages, as the court should think fit.
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THE BIBLE AND MODERN CRITICISM.

The following "declaration on the truth of Holy Scripture" has been forwarded to us for publication:—

1. It must be evident to thoughtful persons that there are now current certain impressions that Holy Scripture has been discovered not to be worthy of unquestioning belief; and the faith of many Christian people is thereby unsettled.

2. These impressions are manifestly a dishonour to God, as discrediting His faithfulness and truth; and are full of peril to the eternal life of those affected by them, seeing that they undermine all faith in the mystery of Christ, and, indeed, in the supernatural itself.

3. And although such impressions might appear to originate in various learned speculations in theological and physical science, yet they are in great measure derived immediately from the popular literature of the day, and therefore no sustained argument can reach the mass of those affected by them; even if it were true (which it is not) that the tribunal of human reason, to which such argument must be submitted, had jurisdiction and competency to deliver judgment on the authority of the Holy Bible.

4. It is, moreover, evident that the effects of these speculations survive and accumulate to the general lowering of the popular estimation of the Holy Bible, though individual speculations may have but a transitory influence, or even be utterly refuted on their own ground.

5. The synods of the Church have not yet spoken with authority to guide us in matters of such grave importance; but it cannot be right in the sight of God that where His honour is so directly assailed, and the salvation of His people so seriously hindered, the whole matter should be allowed to drift, and that only isolated voices should be raised here and there in the Church in defence of the truth of God's Word.

6. Under these circumstances we, the undersigned, messengers, watchmen, and stewards of the Lord, who have received the Holy Ghost to be faithful dispensers of the Word of God, being sorely distressed at these things, and deeply feeling the burden and shame of sitting still, can no longer forbear—

(1) To deliver our joint testimony herein before God; and

(2) To attempt, by the only united action in our power, to settle the minds of those to whom our testimony may seem to be of value in a good and comfortable reliance on the absolute truth of the Holy Scriptures.

7. We therefore solemnly profess and declare our unfeigned belief in all the canonical Scriptures of the Old and New Testaments, as handed down to us by the undivided Church in the original languages. We believe that they are inspired by the Holy Ghost; that they are what they profess to be; that they mean what they say; and that they declare incontrovertibly the actual historical truth in all records, both of past events and of the delivery of predictions to be thereafter fulfilled.

8. We believe these Scriptures because they have the authority of Divine revelation; and wholly independently of our own or of any human approval of the probability or possibility of their subject matter; and wholly independently of our own or of any human and finite comprehension thereof.

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There is only one more point to bear in mind. An army is a powerful element of the State, and its discipline and training cannot be left altogether to a civilian Minister and a Board.

The general officer appointed to take charge of the personnel must be given adequate power, and so far as the troops are concerned, will always be looked up to as their real leader. In short, he will at the War Office hold very much the same position as the First Naval Lord at the Admiralty.

In my next letter I will deal with the military policy of this country, and of the duties of the Army in connexion with it.

I have the honour to be, Sir, your most obedient servant,
JOHN ADYE, General.

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"Times" Dec. 18. 1891

"Times" Dec. 21. 1891

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the Church of England may never acquiesce in rejecting any portions of the One Volume of God's Revelation, as hard sayings, causing stumbling; but, on the contrary, may hold fast their confidence in the faithfulness of God, Who will not suffer us to be deceived in humbly believing that to which He hath set His seal; and may wait patiently, knowing only in part, for the time when we shall know even as we are known, and shall be filled unto all the fulness of God.

EDWARD MEYRICK GOULDBURN, D.D., D.C.L., some time Dean of Norwich.

GEORGE ANTHONY DENISON, Archdeacon of Taunton.

BERDMORE COMPTON, formerly Vicar of All Saints', Margaret-street.

M. F. SADLER, Prebendary of Wells.

T. T. CARTER, Hon. Canon of Christ Church.

J. L. READING, Bishop-Suffragan.

HINDS HOWELL, Rector of Drayton, Rural Dean.

Hon. Canon of Norwich, and Proctor in Convocation.

ROBERT GREGORY, Dean of St. Paul's.

CANON WILLIAM COOKE.

R. W. HANDALL, Vicar of All Saints', Clifton, Hon. Canon of Bristol.

T. L. CLAUGHTON, late Bishop of St. Albans.

R. PAYNE-SMITH, Dean of Canterbury.

F. H. LEICESTER, Suffragan of Peterborough.

WILLIAM RALPH CHEKTON, Canon of St. Albans.

H. W. WEBB-PEYFLOE, Vicar of St. Paul's, Onslow-square, London.

ERNALD LANE, Archdeacon of Stoke-upon-Trent.

WILLIAM BUTLER, Dean of Lincoln.

H. DONALD W. SPENCE, Dean of Gloucester.

THOMAS E. ESPIN, D.D., Prolocutor of the Northern Convocation, Chancery of the Dioceses of Chester and Liverpool, Rector of Wolsingham.

BENJAMIN J. CLARKE, Archdeacon of Liverpool.

B. M. COWIE, Dean of Exeter.

ARTHUR DOUGLAS WAGNER, Vicar of St. Paul's, Brighton.

HENRY R. NEVILL, Archdeacon of Norfolk, Canon of Norwich.

FREDERICK MEYRICK, Non-residential Canon of Lincoln.

J. W. MARSHALL, Vicar of St. John, Blackheath.

RICHARD T. WEST, Vicar of Mary Magdalene, Paddington.

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RICHARD C. KIRKPATRICK, Vicar of St. Augustine, Kilburn.

W. CLAYVELL INGRAM, Hon. Canon of Peterborough.

CHARLES STEPHEN GRUBBER, Vicar of Hambridge.

F. B. PORTMAN, late Rector of Staple Fitzpaine.

W. H. ASKWITH, R.D., Vicar of St. Mary's Taunton.

EDMUND FIELD, Fellow and Senior Chaplain of St. Nicholas College.

E. EARLE WILMOT, Prebendary of Wells.

W. F. HOBSON.

December 16.

"Times" Dec. 21. 1891

THE BIBLE AND MODERN CRITICISM.

TO THE EDITOR OF THE TIMES.

Sir,—The document recently published, bearing the signatures of some eminent clergy, as a "Declaration on the truth of Holy Scripture" should not pass without a protest on behalf of all who value truth and soberness of judgment. It is, perhaps, the most unfortunate, because it is the most extreme, of such joint documents, some of which will recur to our memories. A fatality seems to hang over such joint declarations. Surely it is little short of amazing that some of the signatories should have individually committed themselves to such a statement as the following:—"We believe these Scriptures because they have the authority of Divine revelation, and wholly independently of our own or of any human approval of the probability or possibility of their subject matter, and wholly independently of our own or any human and finite comprehension thereof." These words are as clear as they can be made. These men mean what they say, and they say that they believe independently of any human approval of the

possibility of the occurrence of what they believe. It is impossible to go further in the abnegation of reason. Belief is to be totally independent of reason, and may be even opposed to it. If flat contradictions are met with in different accounts both the contraries are to be believed. Reasoning with the framers of this declaration is therefore out of the question. They rule it out of court. But one is compelled to ask some questions in order to elucidate their position and its strange medley of reasoning and unreasonableness. They say they "believe the Holy Scriptures to have this Divine authority on the testimony of the Universal Church." But is not their acceptance of this testimony an effort of reason? Was the testimony itself independent of all effort of reason on the part of the Church? And does there not exist now a Universal Church capable of bearing testimony by the use of its reason, not in synods only, but in the diffused and illuminated Christian conscience? When was the use of reason in the interpretation of the Scriptures interdicted or interrupted or limited? Do these men believe that the Spirit of God is not now enlightening His Church and bringing it into more truth and fuller light? They speak of themselves as "having received the Holy Ghost." Do they think that they alone received the Holy Ghost at ordination, or that the gift of the spirit of truth is limited to men in holy orders?

The most lamentable features in this document seem to me to be, not its repudiation of God's gift of reason, but its faithlessness, its despair, and its theological arrogance. It gives occasion to the enemies of the Church to blaspheme.

But, again, these writers admit that the Church has never spoken authoritatively on the nature of the inspiration of Holy Scripture. It is, therefore, permitted to us to derive our idea of that inspiration from the reverent and careful study of the Holy Scriptures themselves in such light as ancient and modern learning throws on them.

That study has been the work of the students and critics of this and all past ages, and it has established a faith in that inspiration such as no mere assertion could convey. It does not establish "the actual historical truth in all records," but it establishes the veracity of the writers; it gives a reality and authority to the Bible as the record of God's chief revelation of Himself; and it shows us his firm tread in human history. It gives us a strong, modest, and reasonable faith. By explaining the origin and composition of the books—a process which these men preclude as forbidden—it cuts away the ground of those criticisms of details which have stopped on the threshold of study of the Bible so many who would have been faithful to its spirit. What do these signatories propose as an alternative for the moderate doctrine of our Church as expressed in Article VI. ? I understand them to say, "Take, on peril of risking your eternal life, take the idea of inspiration—which we 38 have arrived at from our partial study of an appeal to antiquity. Prostrate your reason before it. The Church has not spoken, but we speak." They dare to try to impose on members of the Church of England their unauthorized view of a literal and mechanical inspiration. They would indeed lay burdens on us grievous to be borne. Let it be said with perfect plainness that no such theory of inspiration as theirs is recognized by the Church of England, or by any other branch of the Catholic Church. It is unauthorized as well as unreasoning.

Moreover, in the temper that students are only too familiar with, they condemn those who differ from them as "manifestly dishonouring God," "imperiling the eternal life" of themselves and those whom they influence; and "undermining all faith in the mystery of Christ and in the supernatural."

Let no man or woman, above all let no clergyman, young or old, be scared for an instant by such a document as this, however respectable the signatures. Criticism is not destroying the Bible, or "discovering that it is unworthy of belief." This is a caricature. Criticism is making the Bible tenfold more real and precious and useful to our living generation.

Criticism is essentially the outcome of the love of truth, truth sought independently alike of prejudices and consequences. And the truth will prevail. There has always been an outcry against truth since the day when the Truth was crucified on Calvary. Nevertheless the truth prevails. When Jerome began his revision of the text of the Latin version, no words were too strong to condemn his presumption and arrogance. To-day we recognize Jerome as the founder of Biblical criticism. When Erasmus published his Greek Testament and "discovered" that the Vulgate was "not worthy of unquestioning belief"—the first step in modern criticism—he was denounced as a blasphemer; but even Archdeacon Denison has condemned the criticism of 350 years ago. It is always the criticism of to-day that is "a dishonour to God." We stone our living prophets, and build the sepulchres of the dead ones.

The Declaration speaks of "the faith of many Christian people being unsettled." Let it be remembered that there are two classes of people whose faith is unsettled. The class; the Declaration has in view consists of those who, with but little exercise of their reason, have accepted simply the literal truth of every word of the Bible. No critical difficulties come under their notice; they derive from their study the guidance and the spiritual life they need. Such persons deserve the respect and tender sympathy of every one. But I have not found that such people's faith is unsettled by hearing of criticism. They are alarmed for the faith of others, not for their own. Their own, speaking generally, is insensibly modified. Sometimes, as in the case of the 38, it is accentuated; but it is not weakened. There is a far larger class, however, of men and women, not less precious in God's eyes, not less sincere and earnest, who do exercise their reason—to whom the abnegation of reason would be a crime if it were not an impossibility. Are they to be ignored? When all our education is stimulating the use of reason, shall the Church place a curse on it? I am not a critic, but a teacher; and I appeal to all my fellow clergy on behalf of the hungry sheep who look up and could never be fed by such teaching as that which these 38 clergymen dare to prescribe. Reason does not involve a repudiation either of mystery or of the supernatural; reason is not incompatible with faith; reason and criticism lead direct to the recognition of mystery and the supernatural, and to the establishment of a faith at once humble and fearless and robust.

To sum up briefly. Let it be understood that this "Declaration" absolutely repudiates the use of reason in judging of Scripture; imposes a totally unauthorized and untenable theory of inspiration as a part of faith; and disregards and sacrifices the religious instincts and needs and education of the majority of those for whom we are "messengers, watchmen, and stewards of the Lord." Let this be once understood as the meaning and effect of the Declaration, and our respect for some among the signatories will only make us desire that it shall be speedily forgotten.

JAMES M. WILSON, Archdeacon of Manchester.
Roobdale Vicarage, Dec. 21.

THE BRITISH ARMY.

II.

TO THE EDITOR OF THE TIMES.

Sir,—In my first letter having briefly discussed the difficult subject of War Office administration as combined with Parliamentary government, I now proceed to offer some remarks on the military policy of this country and on the duties thereby entailed on the Army.

A somewhat general impression would appear to prevail that we have no genuine military policy, and that, whether as regards the strength of our forces or the amount of our armaments and reserves in various parts of the world, no clearly defined system or principle exists. Others again, led away by the vast preparations of our Continental neighbours, seem to be of opinion that, to some extent, at all events, we should vie with them by largely augmenting our Army.

In the first place, I have to observe that the military policy of this country is not determined by the War Office or by the general officers who hold responsible positions there. It is essentially and properly the function of the Government of the day. The Navy and Army are the instruments by which it is carried out, and the experienced officers of both services at the Admiralty and War Department respectively are consulted from time to time as to the nature and amount of force required in various parts of the world; but they do not determine the policy itself. It is essential that no confusion of ideas should exist between military policy and the duties of the Army, the questions being quite distinct.

The broad principles of our military arrangements are, however, marked out by the peculiar and exceptional position of the British Empire, and any comparison with the arrangements of the great military Powers of Europe is really futile. As for our entering into competition with them in the vast preparations they deem necessary for their safety, it is, I think, perfectly clear that the people of England have not the slightest intention of maintaining a great army at home with the view of taking an active and aggressive part in European complications; and no Government, so far as I am aware, would entertain such a proposal. Our policy in this respect is simple and well-defined. Whilst, as a rule, avoiding compromising treaties, we have, on rare and exceptional occasions, such as in the Peninsular and Crimean campaigns, placed an English force in the field, and which, in association with the Navy, and in co-operation with allies, has had a powerful effect in determining some great and special issue. But even then our military support did not exceed the strength of one *corps d'armée*, and such occasions will probably become rarer as time goes on.

Whilst the vast dimensions and the expansion of our Empire in various parts of the world entail great and ever-increasing duties on our fleets and land forces, we are, owing to our insular position, in a great measure free from the heavy anxieties which weigh down our Continental neighbours. They speak incessantly of their pacific intentions, but year by year expend more millions in military preparations, and withdraw a larger percentage of the population from the ordinary occupations of civil life to serve in their armies. This policy may or may not be essential to their safety, but it is a dangerous and exhaustive process, and is gradually undermining their national prosperity, and, at all events, is emphatically not the policy of this country.

Our military arrangements are determined on entirely different grounds and under totally

different circumstances. Whilst, as already stated, we occasionally and rarely take a limited part in European wars, our general policy is to maintain a force at home which, combined with the Militia and Volunteers, shall suffice for defence, and at the same time provide for reinforcements and reliefs of our troops abroad. It is here that the special circumstances arise, and determine the broad features of our policy. For instance, whilst the Regular Army at home amounts to about 105,500, we have 106,500 officers and men abroad, and the annual reliefs require about 17,000 men. These facts of themselves mark the difference between ourselves and the great Continental Powers, who, speaking broadly, have no distant foreign possessions to protect.

It is, however, often asserted that we have no clearly defined principle in these matters; and even Lord Hartington's Commission fell into this error and spoke of a want of some defined scheme of national defence. My experience does not bear out this view. The strength of our fleets and garrisons abroad, and the armament of the fortresses—all these are decided by the Government of the day, after consultation with the naval and military authorities, and are varied from time to time in consequence of the expansion of the Empire or of changes in the military position. As an instance I may mention that whereas in 1872 the total strength of the Army was 192,672, it had risen in January, 1891, to 210,499 officers and men—an increase of 17,827—this augmentation being chiefly due to the requirements of India, to our recent acquisitions in Burmah, and temporary responsibilities in Egypt, &c. In the same way the great reserves of ordnance, munitions, and stores for the two services are not haphazard arrangements, but are founded on definite principles laid down years ago by successive Master Generals of the Ordnance, and modified from time to time to meet the ever-varying requirements of the two services. Our system, in short, is one of well-considered defence at home and abroad. The conditions are constantly changing, but throughout the whole century the Navy and Army in close association have been thoroughly successful, not only in defence, but in the expansion of the Empire when ordered, and are quite prepared to work together in the present day as they have in the past.

The Egyptian Expedition of 1882 may be taken as a sample. On that occasion a force of about 25,000 men, with the requisite number of guns, carriages, horses, engineer, hospital, and commissariat equipments, was embarked, and, after a voyage of 3,000 miles, was landed in a foreign country without a *contretemps* of any kind. The rapidity and facility with which this was accomplished was due to the cordial co-operation of the Admiralty and War Office authorities; and I very much doubt whether any Power on the Continent could have achieved the same result in so complete and expeditious a manner.

One more point remains to be noticed. Whilst the military forces of this country have special duties of their own, and of a character exceptional, and quite different to those of other Powers, we derive great advantages from the varied service and wide experience gained by our officers and men. The armies of the Continental Powers, though ever drilling and dreaming of war, as a rule remain inactive in their homes year after year, only gaining real experience when some great European crash arises. With us it is quite different. Our troops serve all over the world, and are constantly engaged in campaigns in distant lands, amidst every difficulty of climate, country, and population. The hardships and vicissitudes they undergo not only give them great experience of war, but instil a spirit of reliance, endurance, and enterprise which are, and always have been, the characteristics of our forces. We have at the present moment a large number of officers of high rank holding administrative positions and commands, men almost

unequaled in their wide experience of campaigns under exceptional difficulties; men of the highest character, and who may be thoroughly relied on to train our troops in peace and command them in war.

If successive Governments will place full reliance on their naval and military advisers, we shall have ample assurance that the military policy of the country will be conducted with success, and the duties of the Navy and Army discharged with vigour and devotion.

I have the honour to be your most obedient servant,
JOHN ADYE, General.

Times Dec. 25. 1891

THE BRITISH ARMY.

III.

TO THE EDITOR OF THE TIMES.

Sir,—In my two previous letters I gave a short account of War Office administration and of the arduous duties of the Army in protecting the Empire. I now propose to discuss the system by which our forces at home and abroad are recruited and maintained. This is a difficult subject, and its past history requires consideration before we can form opinions on the arrangements now in force. Early in the century various methods were tried in order to fill our ranks. Life service, high bounties, and short service were adopted, and were sometimes in force at the same time. Even criminals and debtors were pardoned on condition of serving in the Army abroad. The levy and bounty money paid in those days was enormous. For instance, in 1808 it exceeded £40 a man; and even boys under 16 years old and 5ft. 2in. in height cost upwards of £28 each. Notwithstanding this great expenditure, the Army at critical periods was lamentably deficient in its establishments. In 1807, at the beginning of the Peninsular war, there were 42,912 men wanting to complete, and in 1814, at its termination, we were 32,314 short. That was the sort of manner in which we struggled through a great war. The long peace followed, and in 1847 a system was introduced which virtually amounted to 21 years' service, with a small pension, varying for private soldiers from sixpence to a shilling a day. It produced a well-drilled army of men between 18 and 40 years old; but some were too young and a large proportion were too old for tropical climates and prolonged campaigning; whilst the total cost of pensions would, with the Army at its present strength, have amounted to about £3,000,000 per annum.

The system of 1847 was not only costly but unpopular. In 1858 upwards of 20,000 men deserted, and in 1859 the establishment was short by 13,647 men. Between 1861 and 1869 the average number of recruits obtained annually was only 12,546. In 1867 General Peel, then Minister for War, said:—"The question now is whether the British Army should be allowed to collapse."

But, whatever the merits or shortcomings of the various systems before 1870, they all failed to produce any reserve. The Army had no elasticity for war. For instance, in sending a force of 25,000 men to the Crimea in 1854, it was stated by Mr. Sidney Herbert "that every regiment at home or within reach was robbed to complete it."

The Royal Commission of 1867 was fully alive to the difficulty, and said:—"Wars will be

sudden in their commencement and short in their duration, and woe to that country which is unprepared to defend itself," &c. They ended in recommending an addition of twopence a day to the soldiers' pay, and confessed they were not prepared to propose any scheme to secure a reserve!

In 1870 short service was introduced, and the terms for private soldiers, with certain exceptions, are now seven years with the colours and five in reserve, bounties on enlistment being abolished. This system has proved more acceptable to the population, is less costly, more efficient, and more humane. For instance, whereas between 1861 and 1869 the average number of recruits annually was only 12,546, between 1870 and 1879 it rose to 22,885, and between 1880 and 1889 to 30,638. In introducing the new system the depôts of regiments were permanently established in their respective counties, and its results are illustrated by the following figures:—In 1883, 24,247 recruits born in the district were serving in their county regiments. In 1891 this number had risen to 52,725. Again, in 1865, the Militia gave only 1,701 men to the Regular Army. In 1890 the figures were 12,622.

As regards the financial result of the new system, in the first place, the enormous expenditure of former days in bounties and levy money is in a great measure saved. Again, the pension list is decreasing. As already stated, had the old arrangements continued, the annual cost of pensions, with the Army at its present strength, would have amounted to about £3,000,000 per annum. It will now gradually fall to a normal of £906,700. The financial result of the present as compared to the old systems, including deferred and reserve pay, it is calculated, will be a saving of 21.71 per cent. for Great Britain and of 47.2 per cent. for India. The Reserve now amounts to upwards of 60,000 men, and we have also a Militia Reserve of 30,245; so that, whilst the armed strength of the country is much greater than of yore, the cost will be considerably less. These facts deserve careful consideration.

There is another matter connected with the general welfare of the Army which is but little known—namely, the marriage question. Under the old system of 21 years' service, 7 per cent. of the non-commissioned officers and men were allowed to be married, and in India 12 per cent. Quarters, fuel, light, and transport were provided for the women and children at considerable cost. Since 1870 the married establishments have steadily decreased, and are now little more than half of what they were. In India, for instance, in 1876 there were about 6,000 women and nearly 12,000 children, whereas in 1881 they had fallen to 3,740 and 6,548 respectively. In 1879 930 women and 2,249 children were brought home from India. In 1889 the numbers were 543 and 1,258. It is, however, not only as a matter of expenditure that this part of the question should be regarded. The women and children suffered great hardships in being constantly moved, and in tropical climates the mortality was great; and when war occurred their condition was forlorn in the extreme. But there were other results which must not be lost sight of. Under the old system, although a married establishment of 7 per cent. was allowed, it followed that the great proportion of the men—that is, of men between 18 and 40—were not allowed to marry. That was neither natural nor desirable, and undoubtedly led to results on which it is not necessary to dwell, but they gave an evil reputation to barrack life. Under the present arrangements, when men after short service return to civil life they can marry at will, and, even if called out for war, their wives and families, instead of being left like waifs and strays congregated in garrisons, will remain in their own parishes, and will no doubt be objects of sympathy to their neighbours. The Army as a fighting body is thus in a great measure saved

from expence and misery, but is also more unencumbered and ready for action.

It is often said that, granted the merits of a Reserve, the force with the colours has been sacrificed in establishing it. But statistics do not bear out this view, as the following table will prove:—

AGES OF MEN SERVING WITH THE COLOURS PER 1,000.

Year.	Under 20.	Between 20 and 30.	Over 30.	Total.
1871.. ..	190	490	320	1,000
1890	147	752	101	1,000

These figures are remarkable. They show that the proportions of men under 20 and over 30 have considerably decreased, whilst those between 20 and 30 have proportionately increased. I believe every experienced officer will agree with me that, in regard to age, these figures prove that the Army of 1890 is far better than that of 1871.

Then, again, it is often said that short service is not suited for India and the colonies; but this assertion will not bear the test of facts. As regards the effect of climate on English soldiers, the sanitary report of India of 1863 said:—"The mortality of boys, and of all under 20, is much lower than it is ever afterwards." Again, "Upon the whole, early entry into India appears to be an advantage, not only at first, but in after life." Dr. Bryden, in 1871, said that "the death-rate of men above 30 has been consistently double that of men below that age."

Lord Airey's report of 1880 gives the following table:—

NUMBER OF DEATHS OF SOLDIERS PER ANNUM, ON THE AVERAGE OF TEN YEARS.

Under 20 years old	Per 1,000	Over 25 and under 30	Per 1,000
.. ..	8.28	.. ..	18.96
Over 20 and under 25	.. 15.06	Over 30 and under 35	.. 27.45

The proportion of invalids sent home followed very much the same ratio.

In former days and under the old regulations regiments remained about 20 years in India, and it is evident from the above statistics that the men gradually died or were invalided, and were replaced as years went on by drafts of young soldiers. It seems to me abundantly proved that long service in India and tropical colonies is neither humane, economical, nor efficient, and that a foreign service of about six years should not be exceeded.

It is also asserted that under short service the non-commissioned officers are too young and inexperienced; but by a return presented to Parliament in 1890 the average age of infantry corporals is 25 years and eight months, and of sergeants 28 years and ten months, whilst those of the other branches are older. Promotion is undoubtedly quicker than formerly, and that, in my opinion, is an advantage.

A few other facts of a satisfactory character as regards the condition of the Army may be recorded:—

Conduct of the Men.—In 1868 the proportion of courts-martial per 1,000 was 144; in 1889 it was 54.

Men in Prison.—In December, 1884, the numbers were 2,249; in December, 1889, they were 1,292.

Desertions are gradually decreasing, and are about 1.2 per cent.

Education.—In 1872 the proportion of men serving of "better education" was 137 per 1,000; in 1889 it was 854.

In considering the present condition of the Army there is one point of some difficulty as to foreign reliefs. The rules of enlistment are that men of the requisite height and chest measurement are accepted between 18 and 25 years of age. In 1888 we enlisted 10,617 men out of 25,156 who were under 19; and, as we rarely send men to India until they are 20, it is evident that it leaves rather a superabundance of young soldiers at home. On the 1st of January, 1890, however, more than six-sevenths of the Army were

over 20, and it is admitted that the force in India is thoroughly efficient. I may mention that our minimum standard of height and chest measurement is higher than that of any other European Power; and, as a proof that the medical inspection of would-be recruits is strictly carried out, the rejections during 1890 amounted to 396 per 1,000.

I have thus endeavoured to show that the introduction of short service, reserve, and localization have proved highly successful, not only in popularizing the service, but in adding greatly to its strength, with a diminution of cost, and that it is a system well suited to the extended requirements of the Empire. I hope that my remarks, founded on long study of the question, may prove of some public interest.

I am, Sir, your most obedient servant,
JOHN ADYE, General.

Pall Mall

JANUARY 11, 1891

THE GRANTS TO EXTRA

PROPOS of the rumour (of which application to Parliament for a Royal wedding it may be interestingly paying £188,000 per annum exclusive of all the allowances to the

The amounts paid to her Majesty's privy purse Household salaries and retired pay for tradesmen's bills Royal bounty, alms, and special Unappropriated

ILLNESS OF SERIOUS SUFFERING A

The following are the annuities paid

Dowager German Empress (Princess of Wales) Princess of Wales Duke of Edinburgh Princess Christian Princess Louise (Marchioness of Duke of Connaught) Duchess of Albany Princess Beatrice

We regret to state from a severe attack Royal Highness has Prince George, coronation prevails. This affords a character; and apprehension.

Annuity under the Prince of Wales

Then to the Cambridge branch sums are paid every year:—

Duchess of Mecklenburgh-Strelitz Duke of Cambridge Princess of Teck

The bulletin reports good night, and his coronation special correspondent Sir Dighton Probyn, His temperature is low. This being the case Colonel Stanley London this morning Duke's illness.

So that altogether we pay:—

The Queen Royal Family Cambridge branch

The Press Association the Duke of Clarence Dr. Broadbent, writes Prince George in his Clarence. It is understood on Saturday. Many inquiries by private telegraph office

sudden in their commencement and short in their duration, and woe to that country which is unprepared to defend itself," &c. They ended in recommending an addition of twopence a day to the soldiers' pay, and confessed they were not prepared to propose any scheme to secure a reserve!

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JOHN ADYE, General.

Pall Mall Gazette

JANUARY 11, 1892.

THE GRANTS TO THE ROYAL FAMILY.

APROPOS of the rumour (of which we disposed on Saturday) of an application to Parliament for a grant in connection with the forthcoming Royal wedding it may be interesting to recall the fact that the nation is already paying £188,000 per annum to members of the Royal Family, exclusive of all the allowances to the Queen.

The amounts paid to her Majesty are apportioned as follows:—

Her Majesty's privy purse	£60,000
Household salaries and retired allowances	131,260
For tradesmen's bills	172,500
Royal bounty, alms, and special services	13,200
Unappropriated	8,040
	£385,000

The following are the annuities paid to the family of the Queen:—

Dowager German Empress (Princess Royal)	£ 8,000
Prince of Wales	40,000
Princess of Wales	10,000
Duke of Edinburgh	25,000
Princess Christian	6,000
Princess Louise (Marchioness of Lorne)	6,000
Duke of Connaught	25,000
Duchess of Albany	6,000
Princess Beatrice	6,000

£132,000

Annuity under the Prince of Wales's Children Act, 1889 ... 36,000

£168,000

Then to the Cambridge branch of the Royal Family the following sums are paid every year:—

Duchess of Mecklenburgh-Strelitz	£5,000
Duke of Cambridge	12,000
Princess of Teck	5,000
	£20,000

So that altogether we pay:—

The Queen	£385,000
Royal Family	168,000
Cambridge branch	20,000
	£573,000

"The Angel of Death is abroad in the land; you may almost hear the beating of his wings." The striking language in which Mr. BRIGHT referred to the havoc wrought by the Crimean war in the homes of Britain may be repeated to-day with an altered but not less grave significance. Our lengthy obituary has borne eloquent witness day after day to the ravages of an insidious and deadly disease, and the lugubrious lesson has been enforced by the statistics, which repeat with depressing iteration the universal story of suffering and death. An extraordinary number of conspicuous men have been taken away from among us, and every day brings additions to the melancholy catalogue. But not even the perpetually recurring announcements of the death of eminent persons can bring home to us the virulence of the present epidemic so well as the numerous cases of death, or narrow escape from death, that lie within the personal knowledge of every one. There is scarcely a household of average size in the land that has not been more or less afflicted. There is hardly any one who cannot count among his personal friends numerous victims more or less complete of the mysterious malady. Before its deadly attack upon the vital powers the aged or the enfeebled succumb with alarming rapidity, while even the young and strong suffer an inexplicable and persistent reduction of their vitality. If to the long lists of deaths furnished by every town and by every rural parish we add the equally lengthy catalogue of men and women crippled and shorn of half their usefulness, we reach a total of mischief that is positively appalling. There is a curious malignancy about the scourge in virtue of which it produces a deadly prostration out of all proportion to discoverable lesions. For months after an attack, even of a comparatively mild character, men crawl about, the mere shadows of their former selves, feeling the tasks burdensome that before were easy, and confessing physical or mental exhaustion after exertions which were formerly reckoned trivial. The Angel of Death is abroad in the land, and even when he does not kill outright he takes toll of men's vitality, which paves the way for fatal attacks and pitches the whole of life in a lower key.

In spite of all the vaunted science of the nineteenth century we are entirely in the dark as to the origin, the nature, and the cure of this destructive malady. It is still a moot point whether it is to be regarded as propagated by infection, or whether it owns some more subtle and mysterious mode of distribution. It would ill become laymen to dogmatize when the faculty disagree, but is there any example of a purely infectious disease overprevaling the entire habitable globe as the influenza has done? No conditions of race or climate or topography appear to make the slightest difference. On mountain and on marsh, among Caucasians or Mongols, in the centre of broad continents, or in secluded islands of the South Pacific this singular disease seizes its victims with absolute indifference. If from one place we hear that frost checks it, from another we learn that severe weather adds to its intensity. If we fly from the impure air of the metropolis we find it raging with equal virulence at our favourite health resorts. Whether at St. Petersburg or on the

Riviera, in England or Australia or Japan, there is no escape from the malady. If all this is to be explained by infection, the word would seem to cover phenomena with which we have not hitherto been familiar. Some think the disease is a sort of lineal descendant of one of the fearful epidemics of the middle ages, others that it is nothing but itself. Some are satisfied with nothing less than a cosmical origin, which means, we presume, that in its headlong career round Aleyone, or whatever star is our ultimate centre, the solar system has passed through some poisonous region of space. Others are quite content with a bacillus, the newest and most hardworked of the terms with which we veil our ignorance. The fact is that no one knows with certainty anything at all about the malady that is working such deadly mischief, and treatment is little better than a groping in the dark. From one confident assurance the public two years ago derived considerable consolation. We were given to understand that the disease would exhaust itself in a single wave, and that we should enjoy a long period of immunity. Far from that, it has returned upon us more virulent and destructive than at first, and threatens to become endemic rather than epidemic. Apparently there is no rule of practical wisdom in the case save to avoid whatever may exhaust the energies or lower the tone of the system, and to endure with what hope and patience we may until the evil be overpast.

Times Jan. 19. 1892

DEATHS.

On the 4th Dec. 1851, at the residence of her son (the Rev. A. C. Coriell), The Parsonage, St. Mary's, Western Lane, N.W., Australia, **FRANCES REBECCA CORLETT**, aged 73 years.

On the 6th inst., at Castle Wellington, **HUGO DOMERIER**, late German Admiral's Administrator and Lieutenant of Marine Station der Nordsee.

On the 7th Jan., at 12, Rue Victor Hugo, Boulogne-sur-Mer, **SARAH ANNE BLANCHARD**, wife of Edward Blanchard, Esq., aged 55 years.

On the 8th Jan., at Baldoak, Hertford, **EDWARD POSSY BALLY**, in his 76th year. Funeral at Baldoak, Thursday, Jan. 14.

On the 8th Jan., at South Norwood, the **REV. ROBERT GRACE**, late of Winchcombe, Gloucestershire, aged 72. His remains sleep with those of the wife of his youth in Nunhead Cemetery. No cards.

On the 9th inst., of influenza, **EMILINE MARY GEORGINA**, beloved wife of **WALTER BASSANO**, of Haden Cross, Old Hill.

On the 9th Jan., in Paris, of pneumonia, **JOSEPHINE**, youngest daughter of the Honorable **JOSEPH MEDILL**, of Chicago.

On the 10th inst., at St. Martin's-road, Brighton, **MARY HANNAH HARDY**, wife of the late Henry Hardy, of London and Dublin, in her 74th year, deeply mourned by her beloved daughters.

On Sunday, the 15th inst., at The Grove, Watford, **COLONEL** the Honble. **GEORGE P. H. VILLIERS, C.B., C.M.G.**, late Grenadier Guards, aged 44.

On the 11th inst., at Lake House, Freemantle, Hants, **ARTHUR STEVENS DAVY**, late of 59, Queensborough-terrace, W., and the Old Forge House, Warr, Blackfriars, S.E., aged 61.

On the 11th inst., suddenly, at Bangalore, India, **ANNE**, wife of **C. DE LA FAUNCE DE LAUNE**, of Sharsted Court, Kent.

On the 12th inst., at Fiddon House, Hemel Hempstead, **BENJAMIN BENNETT BRENTNALL**, Esq., aged 55 years.

On the 12th inst., at 38, Carlisle-mansions, Victoria-street, S.W., **FRANCES BALLY DAY**, eldest daughter of the late Hamilton Smith Day.

On the 12th inst., at Hope House, Kilburn, **ANNA JEMIMA**, widow of the late **PHILIP NIND**, in her 81st year. R.F.P.

On the 12th inst., at Upper Clapton, E., **EDWIN JOHN GRANGER**, Pharmaceutical Chemist, in his 73rd year.

On the 13th Jan., at Little Hinton Rectory, Wilt., **KATHARINE MAUD RICHARDS**, wife of the Rev. K. E. Richards, aged 45 years.

On the 14th Jan., **ANNE**, wife of **JAMES REDDOE**, of Winter-drye, Beckenham, aged 82.

On the 14th inst., at 84, George-street, Portman-square, W., **Mrs. ELLEN BEVERLEY**, aged 73, late of Leeds.

On the 14th inst., after a few days' illness, **WILLIAM EDWARD BURRIDGE**, Esq., of Sharnbury, Dorset, aged 66.

On the 14th Jan., 1892, at Bourne-mouth, **RICHARD READER HARRIS**, Senior, Barrister-at-law, late Chief Constable of Worcestershire, aged 73.

On the 14th inst., at 5, Portland-place north, Clapham-road, **JAMES MAC DUFF HUMPHREY**.

On the 14th inst., at 17, Claremont-place, Newcastle-on-Tyne, **LIZZIE**, wife of **JOHN B. HUTTON**.

On the 14th Jan., at Hartbeath, Flintshire, **JOHN CARSTAIRS JONES**, Captain 2d Dragoon Guards, eldest son of the late Wilson Jones, of Hartbeath, Galsgryn and Cefncoch, aged 64.

On the 14th inst., at 130, Lancaster-road, Notting-hill, W., **BARNARD LEE**, aged 54.

On the 14th inst., at Sydenham, **ALFRED PORTER, F.R.I.R.A.**, of Grange-road, Harmondsey, and formerly of Norwood, aged 55 years.

On the 14th Jan., at Beechcroft, Pevensey-road, St. Leonards-on-Sea, of pneumonia, **SAMUEL HENRY ROBINSON**, late of Ghoseery, Howrah, Bengal, in his 75th year. Indian papers, please copy.

On the 14th Jan., at 38, Netherwood-road, West Kensington-park, **CHARLES LEVICK KUBE**, in his 74th year.

On the 14th Jan., in The Close, Norwich, from pneumonia, following influenza, **HENRY TERRY**, for 26½ years the faithful and valued servant and friend of the Lord Bishop of Norwich, in his 73rd year.

On the 14th inst., at his residence, The Grange, Halewood, near Liverpool, **EDWARD WHITLEY, M.P.**, aged 66.

On the 15th inst., at Leamington Spa, **GEORGIANA**, widow of **JONATHAN ANGLAS**, Esq., of Brighton.

On the 15th Jan., at Weybridge, **FRANCIS**, beloved wife of **LIONEL SMITH BEALE, M.S. F.R.S.**, of St. Grosvener-street, W., in her 68th year. No flowers, by request.

On the 15th inst., at his residence, Lynton House, Knatoball-road, Chelmsford, **ERENEZEL THOMAS BIRKIN**, in his 73rd year. Funeral at Nunhead on Friday, Jan. 22, 1 p.m.

On the 15th inst., at Richmond, **ANNE BOXSHALL**, aged 82; for many years faithful nurse in the family of Samuel Lloyd Stacey, Tottenham, much beloved and respected.

On the 15th inst., at Leckhampton, of influenza, **MARY**, widow of the late **A. C. W. BOYCE**, Solicitor, Cheltenham.

On the 15th inst., at The Cottage, Ramsgate, **CLEMENTINA RIBDON**, for 40 years the devoted wife of **WILLIAM MORRIS RIBDON**, formerly Manager of the National Provincial Bank, Ramsgate, aged 66.

On the 15th inst., at the North-Western Hotel, Crews, after a few days' illness, of acute broncho-pneumonia, following influenza, **HENRY BRIDGEWATER**, of Duddenhill, Watford, Herts, deeply lamented by his sorrowing wife and family. Will friends please accept this, the only intimation!

On the 15th Jan., at Crickwood Lodge, Crickwood, N.W., **GEORGE BROWN**, late of North Hill, Mortimer-road, N.W., in his 76th year.

On the 15th inst., at Hillhead, Glasgow, **PETER COLQUHOUN**, in his 37th year.

On the 15th Jan., at 38, Hova-villas, West Brighton, after a few days' illness, of pneumonia-bronchitis, **ADELAIDE ELIZA**, the beloved wife of the **REV. W. K. H. COOMBS, M.A.**, aged 59.

On the 15th inst., at 23, Eaton-place, S.W., from influenza, the Honble. **ROBERT DALY**, aged 73.

On the 15th inst., at East View, Uxbridge, **GULIELMAMARIA HARRISON**, for more than 47 years the beloved and devoted wife of **FRANCIS HENRY DEANE, J.P.**, Middlesex, aged 70.

On the 15th Jan., at 8, Guildford-road, Tunbridge-Wells, **MARY JANE**, widow of the late **JOHN DIVES**, of Stone Crouch, Hawkeston, aged 71.

On the 15th inst., at the Rectory, **FRANCIS DU BOULAY**, 42 years Rector of Lawnton, aged 82.

On the 15th inst., at 2, The Villas, Church End, Hendon, N.W., **ELIZABETH ELWELL**, formerly of Walsall, aged 77.

On the 15th Jan., at 3, Colwyn-road, New Wandsworth, **MARY PALMER**, widow of **THOMAS HENRY EVANS**, of Oxford and London, aged 83, last survivor of the family of Richard Tubb, of Oxford.

On the 15th inst., at Hildon House, Margate, **Mrs. ELIZA GATE**, late of Hildon, Cheshire, aged 63, deeply regretted.

On the 15th inst., **WILLIAM JOHN GAYE, M.R.C.S., L.S.A. Eng.**, aged 82, son of Charles Seaman Gaye, of Sherford, Bedfordshire, R.I.P.

On the 15th Jan., at Edge-hill House, Warwickshire, **JOHN W. GODSON**, aged 57.

On the 15th Jan., **JOSEPH HENRY GOOCH**, of The Knowle, Heddleson, Herts, in his 84th year.

On Friday, the 15th Jan., at 25, Lansdowne-road, **JEMIMA LEA QUILLEY BAUD**, fourth daughter of the late Rev. Peter Gullibaud, sometimes Rector of Naltes, Somerset, aged 81 years. Interment at Caterham on Thursday, 21st inst., at 1 p.m.

On the 15th inst., at 82, Leonard-on-Sea, **THOMAS ROLLS HOARE**, of 39, Epsom-road, aged 75.

On the 15th inst., at 4, Westfield-villas, Spareshook, **JOHN HENRY JONES**, for many years London Manager to Messrs. Finny, Lohs, and Co., of Brisbane, Queensland, in his 84th year. The interment will take place on Wednesday, the 23rd inst., at Wanstead Old Church, at 3 p.m. Friends will kindly accept this, the only intimation.

On the 15th inst., at 13, Abingdon-villas, Kensington, **SIDNEY JOSEPH**, late of the Colonial Office, aged 72.

On the 15th Jan., at Longeville, Malton, **JEMIMA LUCY**, widow of **RICHARD LANGFIELD**, of Lougeville, in her 81st year.

On the 15th inst., at 2, Oxford and Cambridge Mansions, London, **FRANCIS BURGH LEIGHTON**, eldest son of the late Rev. Francis Leighton, Rector of Cardiston, Shrewsbury.

On the 15th Jan., at 101, Sandgate-road, Folkestone, **CHARLOTTE**, youngest daughter of the late **REV. ROBERT GEORGE LEWIS**, sometime Vicar of St. John's, Blackheath, aged 41 years.

On the 15th inst., at his residence, 4, Rochester-road, N.W., from influenza and bronchitis, **ROBERT LUGAN**, of H.M. Patent Office.

On the 15th inst., at Isleworth House, **ELIZA McANDREW**, widow of Robert McAndrew, Esq., of Isleworth, aged 84.

On the 15th inst., at 41, Mory-road, Finsbury-park, **ELIZA**, the beloved wife of **JAMES MADGIN**, in her 62nd year.

On the 15th inst., at 40, Brunswick-road, Brighton, after two days' illness, **BENJAMIN HOLMES MOWBRAY**, in his 84th year.

On Friday, the 15th Jan. inst., at Bushy-heat, Herts, in her 71st year, from bronchitis, **THEODOSSIA**, wife of **MR. SIMPSON SOAKES**. No flowers, by request.

On the 15th inst., at Brighton, **JOHN SAVILE OGLE**, of Kirkby Hall, Northumberland, in the 60th year of his age.

On the 15th Jan., at Maynard Cottage, West Malvern, **ANN BRATHWAITE PINDER**, widow of Rev. John Hothersall Pinder, aged 83 years.

On the 15th Jan., 1892, at 11, Cambridge-terrace, Picnic, suddenly, **IZALINE POZORNÝ** (nee Pittel), of influenza, aged 82.

On the 15th Jan., at 82, Cambridge-gardens, North Kensington, W., **ELIZABETH**, widow of the late **JAMES REYNOLDS**, of Peabridge-gardens, Watlington, aged 77.

On the 15th, at Hastings, from the immediate effects of influenza, JOHN HASHLEIGH RODD, Esq., Admiral Retired List, of Warberry, Tunbridge-Weir, greatly respected and most tenderly beloved. Funeral on Saturday at Trinity Church, Tunbridge-Weir, 11.30. No flowers.

On the 15th inst., at Bourne Mills, Farnham, CHARLOTTE, widow of the late WILLIAM SIMMONDS, aged 76 years; surviving her husband only five days.

On the 15th inst., at Beaconfield House, 42 Aberdeen-park, Highbury, JAMES MAY STROUD, of influenza and pneumonia, after a week's illness, aged 78. Service at St. Saviour's, Aberdeen-park, at 11 a.m.; interment at Highgate Cemetery, 2.30 p.m., on Wednesday. No flowers. No cards.

On the 15th Jan., at Nunhead, SARAH THOMPSON, elder daughter of Charles Sadler, of Hampton Court, and wife of Henry Thompson, of East Molesey, aged 42.

On the 15th Jan., at Wymondham, Norfolk, MARY, widow of JAMES VINGENT, aged 55 years.

On the 15th Jan., 1892, at Adelaide House, Camberwell, ROSE, aged 50; also, two days after, HENRY PELLING WELLBORNE, aged 92, widower of the above. Accept this, the only intimation.

On the 15th inst., of influenza, at 8, Grove-place, Bedford, the residence of her brother-in-law, Harry Thody, EMILY MAUD WOOD, aged 38. Friends will please accept this (the only) intimation.

On Friday afternoon, the 15th inst., at his residence, Hoosick Falls, New York, in his 77th year, the Hon. WALTER ABBOTT WOOD, of severe prostration following influenza and pneumonia. Colonial and provincial papers, please copy.

On the 15th Jan., at 2, Abbey-garden, N.W., the residence of her daughter, ELIZABETH WATSON, of 14, Loudoun-road, N.W., widow of Capt. Thomas Watson, aged 72. Friends, please accept this the only intimation.

On the 15th inst., aged 14, Loudoun-road, St. John's-wood, HENRY HARRIS (brother of the above) and eldest son of the late HUMPHRY WATSON, of Darlington, Tonnes, Devon, aged 71 years. Friends, please accept this, the only intimation.

On the 15th inst., at London, FRANCIS OUTRAM ANDERSON, Lieutenant Indian Staff Corps, son of the late Colonel J. C. Anderson, R.E., C.S.I., aged 23. Indian papers, please copy.

On the 16th inst., at Scoble Hall, Carlisle, BARBARA ANDREW, in her 66th year.

On the 16th inst., at 5, Marine-parade, Dover, HARRIETT BAZELY, second daughter of the late Capt. Henry Bazely, R.N., C.R., aged 80 years.

On the 16th Jan., at Lyndwood, Teckenham, CHARLOTTE, widow of the late GENERAL JAMES BELLIS, H.M. Madras Army, in her 82nd year (of pneumonia). The funeral will be at Regiate Cemetery, on Thursday, at 2.30 p.m. Friends will please accept this intimation.

On the 16th inst., after a very short illness, at his residence, Grove-hill, New Hampton, WILLIAM BLANCHARD, Esq., late of Beak-street and Kenner-street.

On the 16th Jan., at Bridgwater, EDWIN HENRY BURINGTON, aged 71.

On the 16th inst., CAROLINE, the wife of HENRY CHURTON, Coroner for West Cheshire, and the last surviving daughter of the late Henry Caiskell, of London.

On the 16th Jan., at No. 20, Rutland-gate, Hyde-park, MARTHA COLE, widow of the late John Cole, Esq., of that place, and formerly of Adelphi-terrace and Essex-street, London, in her 95th year.

On the 16th inst., Mrs. COPELAND, the much-respected house-keeper to Joseph Grabam, 140, Malin-vale.

On the 16th Jan., at Kingsley, Friends-road, East Croydon (and late of Friday-street, E.C.1.), W. G. DADE, aged 74 years.

On the 16th Jan., 1892, at Haven-green, Ealing, the residence of her sister, ELIZABETH, eldest daughter of the late ROBERT DALGLEISH, Esq., of The Reddick, county Stirling, aged 82.

On the 16th Jan., at 25, Boverie-road, Stoke Newington, MARY DAWSON, late of Watford. No flowers, no cards, by her own desire.

On the 16th inst., at Terrace House, Southampton, CHARLES ARTHUR DAY, J.P., in his 78th year. No flowers.

On the 16th inst., at the residence of her brother, Wells, Somerset, LEONORA GIBBERT, aged 80. Friends will kindly accept this, the only intimation.

On the 16th Jan., at 11, Hamilton-terrace, Greenwich, MARY, widow of WILLIAM FEEN, aged 83.

On the 16th inst., at Connaught House, Brighton, of diabetes, ELIZABETH CHARLES, widow of ROBERT JOBE, Esq. Funeral on Thursday, the 21st inst. Friends, kindly accept this only intimation.

On the 16th inst., at Clyde Villa, Exmouth, Devon, COMMANDER WELLESLEY GREGORY, R.N., in his 61st year.

On the 16th Jan., at Lonsington Rectory, the REV. JAMES DOUGLAS HARRINGTON, of pneumonia following influenza, eldest son of the late Rev. Henry Duke Harrington, of Knaossington, Leicestershire, aged 61 years.

On the 16th Jan., at 4, Fernham-road, West Kensington, DR. EDMUND HARTLEY, formerly of Warwick-square, London, and Ivy Bridge, Devon, aged 78.

On the 16th inst., at 25, Bloomsbury-place, Brighton, MARGARET ELIZA, second daughter of the late CHARLES PHILLIPS JOHNSTON, Esq., of Newbold Manor, Staffordshire.

On the 16th inst., at South Hackney, ELEANOR, the beloved wife of JOHN JONES, Esq., J.P., after a short illness, aged 51 years. Loving wife, affectionate mother, and a true friend.

On the 16th inst., at Bourne-mouth, KATE S. SIMPSON, the beloved wife of James Simpson, late of Shanghai, China.

On the 16th inst., at Berkhamsted, JANE, the beloved wife of ANTHONY SLATER, Bookseller.

On the 16th Jan., 1892, at 32, Craven-hill-gardens, ELIZABETH, widow of the late JOHN OWEN SMITH, of Port Elizabeth, within a fortnight of her 52d birthday. Service at Christ Church, Lancaster-gate, on Tuesday, 21st inst., at 11.30 a.m.

On the 16th inst., at Wick House, Richmond, Hon. ALGERNON GRAY TOLLEMACHE, brother of the late Earl of Dysart, aged 58.

On the 16th Jan., at Nether Stoney, near Bridgwater, AGNES HENRIETTA TREVOR, widow of the late James Trevor, and daughter of the late Henry Bullock, of Overton House, Wilt., aged 71.

On the 16th, at 23, Connaught-square, W., EMILY GEORGINA, eldest daughter of the late Lieut. General George Hornford, and widow of the late JOHN TWYSDEN.

On the 16th inst., at 24, Carlton-crescent, Southampton, MARY LUCY, widow of the late SIR VERE EDMOND DE VERE, Bart., of Cragga Chase, Adare, county Limerick, in her 74th year.

On the 16th inst., at his residence, Fernhill, West Malvern, the REV. ROBERT WADDE-GERRY, formerly for upwards of 40 years Rector of Colmworth, Beds, in his 80th year.

On the 16th inst., at 6, Vaughan-road, Coddishover-lane, London, ELIZABETH WALKER, wife of William Walker, late of the Metropolitan Board of Works, in her 72nd year.

On the 16th Jan., at his residence, Hurstfield, The Avenue, Gipsy-hill, WILLIAM LEWIS WELLS, aged 56. Friends will kindly accept this information.

On the 16th inst., at his residence, Temple Sheen, East Sheen, ROBERT WATSON WILLIS, only son of the late Robert Willis, M.D., aged 48 years.

On the 16th, FRANK WILMER, of Mare-street, Hackney, aged 42. Funeral will take place at St. Peter's, South Wood, near Brentwood, at 2 o'clock on Thursday.

On the 16th inst., at 14, Lindenstrasse, Frankfort-on-the-Maine, JULIUS WOLFF.

On the 17th inst., at 141, Maiden-vale, W., GEORGE CLAUDIUS ASH, aged 77.

On the 17th inst., at Langley House, Grove-lane, London, S.E., RACHEL, the beloved wife for over 50 years of RICHARD BARRETT, aged 71.

On the 17th Jan., at her residence, Woodgrange-road, Forest-gate, Essex, JANE, widow of JAMES BARRINGER, aged 73 years.

On the 17th inst., at 5, South-park, Hford, Essex, suddenly, of pneumonia, LUKE BOSWELL, aged 75 (for 10 years a member of the Metropolitan Board of Works), in her 72nd year.

On Sunday, the 17th Jan., at Marselles, ALEXANDER WILLIAM ROBERT BRANDT, Vice and Deputy Consul of the United States of America, Marselles, deputy-forest son of the late Robert Brandt, of Streatham, and 12, Old Jerry-chambers, London, aged 23, deeply lamented.

On the 17th Jan., at Nagler-road, Luton, FREDERICK BROWN, aged 78 years.

On the 17th Jan., at Colicote Lodge, after a few days' illness, of bronchitis and influenza, ELIZABETH, wife of the late JOSEPH BUCK, eldest daughter of the late Richard Paterson, of Leacons, Chislehurst, aged 71.

On the 17th inst., at Blandford, CHARLOTTE, widow of the late J. S. DANIELL, and second daughter of the late Lt.-Col. James Williamson, Commandant of the Royal Military Asylum, Chelsea, in her 82nd year.

On the 17th Jan., 1892, at Abinger, Dickenson-road, Crouch-hill, N., after three days' illness, LILLIE, the beloved wife of ALFRED G. PURSE, and only daughter of Mr. William H. Burroughs, of Montpelier, Grosvenor-road, N., in her 24th year. No cards.

On the 17th inst., at her residence, Park-place, Upper Baker-street, of bronchitis, Mrs. CATHERINE CAIRNS WOODLEY, aged 78 years.

On the 17th Jan., at his residence, Lower-street, Deal, CHARLES HILLS, Solicitor, in his 55th year.

On the 17th inst., at St. John's Lodge, Raynes Park, Wimbledon, S.W., MARY ANNE, widow of the late GEORGE LYNCH, Esq., aged 84. R.I.P.

On the 17th inst., at Docthour, Inverness, Mrs. GEORGE ST. JOHN MILDREY, aged 83.

On the 17th inst., at 39, Lady Margaret-road, of pneumonia, JOHN NOBLE, formerly of Boston, Lincolnshire, and late Secretary of the London and Counties Liberal Union, aged 64.

On Sunday, the 17th Jan., 1892, at Eton Lodge, Putney, BELLINA MARIANNE, the beloved wife of MAJOR-GENERAL SIR THOMAS TOWNSEND PEARL, K.C.B., in her 82d year. Funeral at Mortlake Cemetery, on Thursday, at half-past 2.

On the 17th inst., at 42, Cadogan-place, after a few days' illness, of influenza, FRANCIS EMILY, second daughter of THOMAS BRADY, of St. PUCKLE.

On the 17th inst., at Duppas-hill, Croydon, CAREW SANDEES ROBINSON, Solicitor.

On the 17th Jan., aged 72, MARTHA, the beloved wife of BENJAMIN WILLIAM WEBER, of West Hampstead, and youngest daughter of the late Joshua Harcombe Esq., of St. John's-wood. No cards.

On the 17th Jan., at Bourne-mouth, SIR THOMAS WHITCHOTE, Bart., aged 78.

On the 17th Jan., at 57, Batholomew-road, N.W., LUCY MARPLE, the dearly-loved child of WILLIAM DAVID and LUCY MARPLE, aged five years and three months.

On the 18th inst., at his residence, Kelvin House, 10, Highbury-quadrant, N., ALFRED HICKS, of 35, King-street, Covent-garden, Solicitor, aged 65.

On the 18th Jan. inst., at his residence, The Cottage, Oakleigh-park, Whetstone, WILLIAM JONES, formerly of Lotus Cottage, Hornsey, aged 78 years.

On the 18th inst., at the house of A. Power Hicks, 9, Roland-garden, JOHN NEWNHAM, aged 22; a valued, devoted friend.

On the 18th inst., at 12 Clapham-common-gardens, London, S.W., of heart disease, CAROLINE AGNES, wife of HERBERT PRICE, Registrar, General Post Office.

On the 18th Jan., in The Close, Salisbury, GEORGE ROBERTS TATUM, F.R.C.S., aged 64 years.

On the 18th inst., MATILDA SMALL WALLACE, sister of the Rev. Wm. Wallace, D.D., St. Luke's Vicarage, Eardley-road, E., and of the Rev. Robert J. Wallace, M.A., Hurst Green Vicarage, Lancashire. Irish and Lancashire papers, please copy. No flowers.

On the 18th inst., at Koo-yong, Grove-park, Lee, HENRY PILCHER WELCH, the dearly-loved husband of Eleanor Welch, aged 60 years; of the firm Welch, Perrin, and Co., of Melbourne and London.

"THE TIMES" OBITUARY ANNOUNCEMENTS OF JANUARY 19, 1892.

TO THE EDITOR OF THE TIMES. Sir,—Out of the 159 advertised deaths in THE TIMES of to-day there are only 128 of them which give the ages of the deceased.

These 128 comprise:—One infant, 19 days old; 14 adults under 50 years of age; 27 adults between 50 and 70 years of age; 81 adults between 70 and 90 years of age; five adults between 90 and 100 years of age.

The mean age of the whole 128 is 69 years, 10 months, and 10 days; or, if the infant be eliminated, the mean of the 127 is 70 years, four months, and 21 days.

I question if such a longevity has ever before been recorded in any daily paper in the world.

Your obedient servant, St. Neot's, Jan. 19. GEO. BOWER.

PRECAUTIONS AGAINST EPIDEMIC
INFLUENZA.

We have received the following circular and memorandum from the Local Government Board for publication:—

Local Government Board, Whitehall, London,
S.W., Jan. 25, 1892.

Sir,—I am directed by the Local Government Board to forward to the sanitary authority the enclosed copies of a memorandum which they have caused to be prepared in their medical department with reference to the prevailing epidemic of influenza.

I am to request that one of the copies may be placed in the hands of the medical officer of health.

The Board trust that the sanitary authority will use every effort to secure, as far as possible, the general adoption of such measures, both of precaution and prevention, as are indicated in this memorandum.

I am, Sir, your obedient servant,
S. B. PROVIS, Assistant Secretary.

The Clerk to the Sanitary Authority.

PROVISIONAL MEMORANDUM UPON PRECAUTIONS
ADVISABLE AT TIMES WHEN EPIDEMIC
INFLUENZA THREATENS, OR IS PREVALENT.

In July, 1891, the Local Government Board issued a report by Dr. H. F. Parsons "On the Influenza Epidemic of 1889-90," together with an introduction by their medical officer.* It was then pointed out that "action for the prevention of disease, in order to be effectual, must be based on a knowledge of its causation," and since our knowledge of the natural history of influenza, and especially of the circumstances of time and place under which it spreads, remains most imperfect, any advice which can be given as to the precautions to be taken for its prevention or mitigation can only be correspondingly incomplete.

But, in view of the recurrence and maintained prevalence of the disease, the Board feel that there may be advantage in setting out certain points as to which some definite knowledge has been obtained.

1. Influenza is spread by infection from person to person.

On this point the medical officer of the Board wrote:—

"The disease has long been regarded as of the 'miasmatic' group; of that group, namely, wherein pathologists and statisticians comprise the common infectious diseases of our own and other countries. . . . In its epidemic form influenza is an eminently infectious complaint, communicable in the ordinary personal relations of individuals one with another. It appears to me that there can henceforth be no doubt about the fact.

"In some circumstances it would seem that infectiveness of influenza through the atmosphere shows itself over a wider area than the limits of household life. Probably also there are other less direct ways by which the infection of the disease can travel; and ways, moreover, by which the infection can be retained for a time in a state of suspended activity. . . . But we have, no doubt, much to learn about the dissemination of influenza, and particularly of the stage when the complaint acquires its epidemic power."

(Since the above was written evidence has accumulated to indicate that influenza is infectious at quite an early stage of the illness, and may remain so as late as at least the eighth day from attack.)

By having established a place for this influenza among infectious diseases, we assert a position for the disorder within a class of diseases over which we habitually exercise a measure of control. But from what we have thus far seen of the specialities of influenza we cannot feel particularly confident of our ability, under the existing conditions of society, to successfully defend ourselves against a further outbreak. A disease that can be absent in an epidemic form for 30 years together cannot, even if a first attack confer immunity, avail to give the protection of a first attack to any large part of a population.† Early isolation precautions, applicable perhaps to children suspected to have measles, cannot well be applied to persons suspected of influenza among the bread-winners of a community; and the singular ability possessed by influenza to disperse itself over a population owing to its brief incubation period must add to the difficulties of dealing with an infection that finds the bulk of the population susceptible to its attack. Having, as would seem, something like a third part of the incubation time proper to smallpox, measles, or typhus, influenza has correspondingly rapid ability to repro-

duce itself; can, that is, give rise to some thousand attacks in the time that smallpox or typhus had taken to produce ten; each of the thousand cases being ready to infect other susceptible people, and the difficulty of applying principles of isolation and disinfection being in like measure enormously enhanced."

A further difficulty in applying the process of "stamping out" by means of isolation and disinfection at the commencement of a threatened epidemic of influenza, when alone success is likely to be attainable, arises from the circumstances that the disease does not possess any definite and easily recognizable feature like the rash of some of the other infectious diseases, so that the first cases of it may not be discriminated from ordinary catarrhs, transient febrile attacks, &c. The consequence is that such preventive measures as are available are delayed until obscure cases have multiplied, and the disease prevails in a recognized form.

In view of the difficulties referred to, it is not practicable to devise any restrictive measures for the prevention of the spread of influenza which shall be universally applicable.

But, under some circumstances and certain classes of persons, some such measures should be resorted to, and this notably:—

(a) For persons in whom an attack of influenza would be specially dangerous by reason of age or infirmity;

(b) For the inmates of institutions, the mode of life in which can be regulated and controlled;

(c) For the first cases of influenza in a locality or a household where the attacks are early recognized.

In such cases:—

I. Separation between the sick and the healthy should, as far as practicable, be carried out. Measures to this end have in some instances been adopted with marked success.

II. With isolation, should be combined disinfection of infected articles and rooms.

Persons suffering from influenza should not expose themselves in public places.

Since the propagation of influenza is known to be promoted by the assemblage of large numbers of persons in a confined atmosphere, it is advisable that when an epidemic threatens or is present unnecessary assemblages should be studiously avoided.

The ventilation and cleanly keeping of any building in which many people are necessarily collected together should receive special attention when influenza threatens or is present, with a view to secure that the air of the building shall be frequently changed, at any rate, during the intervals of its occupation; and to avoid accumulation of dust and dirt.

2. The liability to contract influenza, and the danger of an attack, if contracted, are increased by depressing conditions, such as exposure to cold or to fatigue, whether mental or physical.

There is a reason to believe that the development of an attack of influenza in a person exposed to the infection depends very largely upon the receptivity of the individual; and that the power of resistance varies not only in different persons, but also in the same person from time to time; being diminished by any conditions which depress the general bodily vigour. It is, therefore, important that at the time of an epidemic all persons should, as far as they are able, pay attention to such measures as tend to the maintenance of their health, wearing clothing of suitable warmth, and avoiding unnecessary exposure to cold and fatigue, unwholesome food, and excessive use of alcoholic liquors. Similar principles should be borne in mind by those who, as managers of institutions and establishments, have to make regulations for others.

There is also a very general agreement among medical practitioners that the risk of a relapse and of the occurrence of those pulmonary complications which constitute a chief danger of the disease is increased by anything which involves exposure to cold or fatigue before complete recovery.

Persons, therefore, who are attacked by this malady should not attempt to fight against it, but should at once seek rest, warmth, and medical treatment.

The nature of such treatment does not fall within the scope of this memorandum.

R. THORNE THORNE, Assistant Medical Officer.
Local Government Board, S.W., Jan. 23.

* Report on the Influenza Epidemic of 1889-90, by Dr. Parsons, with an introduction by the Medical Officer of the Local Government Board (C.—6,387), pp. 324. Eyre and Spottiswoode, East Harding-street, E.C.

† Abundant evidence has now accumulated to show that influenza does not, in any marked degree, or for any considerable length of time, confer immunity against another attack.

THE OPIUM QUESTION AGAIN.

An attempt is being made to convert the Indian opium question into a question of English party politics. It has been proposed that temperance candidates at the next general election should make the abolition of the opium revenue a part of their programme, and that prohibition in India should be put forward as the analogue of local option in England. Such a statement of the case would amount to a deliberate misrepresentation. It would be an attempt to trade on the ignorance of the average British voter in regard to Indian affairs; an attempt made in defiance of the clearest evidence of experts, and of the authoritative record of facts lately presented to Parliament. If the anti-opium party dispute that evidence, or question those facts, they can bring on the question again in the House of Commons. But to pass over the information recently placed in possession of Parliament, or to catch at a popular prejudice of the question by one-sided selections of opinions, and by the false analogy of local option in England, is a course which all right thinking men must condemn. Of the few great historical blunders which England has made in her treatment of India or of Indian questions, the most serious have been the product of party politics, and of appeals to the misinformed or misdirected sentiment of well-meaning British men and British women. At the end of the last century long miseries were inflicted, in the name of justice, on one of the greatest and most pure-handed Governors who had ever ruled India. At the close of the present century the victim chosen is not any individual statesman, but the whole Indian people. For it is not the British financiers of India who would mainly suffer from an unrighteous decision in this matter, but the Indian taxpayer and the Indian tiller of the soil. If the opium question is now made a question of party politics and of uninstructed popular sentiment in England, a far graver wrong will be done in the name of morality to the races of India than the wrong done to Warren Hastings in the name of justice a hundred years ago.

There is, therefore, a peculiar fitness in the determination of the Society of Arts to bring the subject again before the public this week in a clear and impartial manner. No one can accuse that society of want of sympathy with movements affecting the well-being of humanity, or of levity or cynicism in dealing with efforts to ameliorate the condition of mankind. Any such levity or cynicism would in the present matter be cruelly out of place. On the one hand we see a body of benevolent Englishmen and Englishwomen, whose motives are above suspicion, and who truly believe that the present opium system does grievous harm to millions of their fellow creatures. On the other hand there are the medical experts, and administrators with a complete knowledge of the actual working of the system, many of whom have no connexion with the official issues involved, and whose motives as a body are equally above suspicion with those of Sir Joseph Pease himself. These medical experts and these experienced administrators assure us from their own observation that the statements of the anti-opium party are based on ignorance of the facts. A little aside stands the Government of India; declaring through the mouth of Lord Lansdowne that its system is the best that it can devise for repressing the evils incidental to the use of any intoxicant or narcotic, but willing to adopt any further safeguards that will not involve a tyranny which would not be endured for a moment in England, and which would be fraught with peculiar injustice and danger in India. In the background wait the Indian peoples, the peoples whose interests are at stake, and on whom the burden of an unwise decision will fall.

What are the real issues to the races of India? On previous occasions we have endeavoured to state, we trust with candour, the financial and the economic aspects of the case from the British point of view. We now desire to direct attention to the more purely Indian aspects of the question, in the hope that those aspects may receive a full and fair consideration in the discussions which will shortly take place, both by the Society of Arts this week, and at many political meetings before the general election. The financial and economic issues are sufficiently serious, but the speakers at the Society of Arts on Thursday afternoon will betray a want of appreciation of the real bearings of the case if they confine themselves to these issues, or if they fail to inform the English public as to how the moral bearings of the question affect, not only the rulers of India, but the Indian peoples.

The legitimate use of opium in India is determined by two sets of causes: by geographical or climatic necessities, and by needs arising out of the prohibitions of religion or the temperament of races. The latter are familiar to, and clearly understood by, all careful students of the question, and require but a brief comment. It is found, as a fact of past history and of present experience which it is impossible to struggle against, that, when an Indian race or population is rigidly precluded by religion or custom from the use of intoxicating liquors, it makes up for the prohibition by the use of narcotic or stimulating drugs. A familiar illustration is furnished by the Bombay Presidency. The aboriginal races and low castes of that Presidency are not precluded by custom or religion from intoxicating liquors, and tracts in which those races or castes are numerous head the list of "the drinking districts." The Muhammadan population of Sind, which is strictly precluded by the Kuran from the use of such liquors, stands at the opposite end of the scale, and holds a highly virtuous position in the excise returns. But, in place of spirituous liquors, it makes a free use of narcotic and stimulating drugs, among which opium is acknowledged to be the least injurious.

To turn to the northern provinces, the populations which consume opium most largely are the two finest military races of India, the Rajputs and the Sikhs. The Rajputs have never been under direct British rule, the Sikhs are the Indian race which has most recently passed under British rule. But both of them are in a special manner precluded by religion and custom from the use of spirituous liquors, and both of them have always made amends for the deprivation by the use of narcotic or stimulating drugs, among which opium is, again, the most innocuous. To deny by British law the use of opium to the Sikh population of the Punjab, or to the Rajput population of the North-Western Provinces and of Rajputana and the Central India States, or to the Muhammadan population of Sind, would simply compel them to substitute *bang* and other preparations which they now regard very much as the temperate wine-drinking peasant of rural France regards the alcohol-drinking and absinthe-sipping profligate of Paris. Such a law would, with the full knowledge of the lawmakers, deliberately lead to the degradation of the bravest and most high-spirited peoples of India. In the British territories it could only be enforced by bloodshed and by arms. In the native States it could not be enforced at all.

These, however, are facts familiar to every one who has a practical acquaintance with the history and causes of the use of opium in India. The other set of causes, arising out of climatic or geographical conditions, has not hitherto been so generally recognized. It is broadly understood that opium has its value as a prophylactic. But only those who have made a careful study of the question are aware how widely opium is used as a daily article of consumption with a view to the maintenance of health and as a defence against

the diseases endemic in certain geographical areas. Such geographical areas include most of the great deltas of India and some of the most fertile river valleys. These are the tracts which enable India to pay the cost of foreign rule; they are also, unhappily, the tracts in which the life of the peasantry is one long struggle against the malaria and maladies generated by a high temperature and excessive moisture. There is the clearest medical evidence that the general and moderate use of opium by a deltaic population, such as that of Orissa, is an unconscious safeguard, the result of centuries of practical experience, against the endemic diseases of the delta. Think of thousands of square miles of the rice crop, of which every single root has first to be grown in flooded nursery fields, and then to be transplanted and dibbled down by the human fingers into an expanse of liquid mud! That represents the lot of millions of "agricultural labourers" in India—men who would despise themselves and outcaste their blood relations if they once touched a glass of British spirits, but who from early manhood to old age consume a certain monthly amount of opium without blame from their brotherhood or injury to themselves.

These deltaic populations do not belong to noble or historic military races, like the Rajputs and the Sikhs. They are only poor toiling British subjects, unaccustomed to the use of arms, whom we may oppress if we please. If we deprive them by legislation of the use of opium, we deprive them of an article of regular consumption, which experience has taught them is a useful defence against the hard conditions of their climate, and we drive them to the use of more dangerous drugs like *bang*, or to spirituous liquors. "Miss Powar," says one of the leading native papers in Bombay, when protesting against the young Indian lady who had been lecturing on the opium question at Sheffield, in absolute ignorance of the actual facts, "Miss Powar ought to bear in mind that there is more need for checking the consumption of spirituous drinks than the use of opium."

The deltaic populations are not, however, the only populations in India to whom the moderate habitual consumption of opium is confined. The use of the drug in damp and hot river valleys, which reproduce in some degree the climatic conditions of a delta, has long formed a subject of administrative regulation. But few persons in England are aware how general the use of opium is in such localities, or the part which it plays in the life of the working classes. At the risk, therefore, of being tedious, we shall quote in full a paragraph from the papers lately forwarded by the Chief Commissioner of Assam, in reply to the memorial of the Society for the Suppression of the Opium Trade. Assam is a province in which the Chief Commissioner reports that there is no real question of "opium dens." But it is a province in which there is a large and steady consumption of opium by the greater part of the population. The following passage from the Note by the Excise Commissioner for Assam shows exactly what "a large and steady consumption" by a river-valley population in India means. He says:—

I am not prepared to admit that the present use of opium in Assam is a "vice." In most cases it is a necessity. When we first acquired Assam (I now speak of the Assam Valley) every villager grew his own opium, just as he now does his vegetables, or his chillies for his curry. He had no tax to pay for his opium field, no restrictions placed on him. The former rulers recognized that a certain amount of the drug was necessary. Taking it broadly, and excluding tea gardens, the valley is inhabited by two classes—the Kacharis, Lalongs, Meches, and other aboriginal tribes who reside on the higher submontane tracts or along the high banks of the larger rivers, and the Hindus, the Kolitas, Koshes, Keots, and others who reside in the low-lying country subject annually to inundation and always damp. The former people do not use opium, they do not require it, but the lowlanders use it. They are the opium-eaters of Assam. They live in a low, damp part of the country; year

after year parts of their villages are submerged and temporarily abandoned, and these people use opium to counteract the damp and malaria. They themselves say that they would die from fevers if they did not use opium, and I have known medical men who have had much experience of the province hold the same view. These people are opium-eaters, but not of the class described in the [Anti-Opium Society's] papers. They are good agriculturists, good subjects, and good fathers of families. They take their opium just as a good Englishman would take his peg. Of course there are Assamese who take too much opium, just as there are Englishmen who take too much liquor; but that opium-eating is always a vice I am not prepared to admit so far as Assamese are concerned, and that it is increasing I deny, and the statement I have referred to proves my view. In the Surma Valley little opium is consumed. The people there use ganja [a cheaper and more dangerous drug] rather than opium, and even there the consumption of this drug is smaller now than it was in 1874-75, and the duty is higher.

We have spoken, so far, of the general and moderate use of opium by the Indian races. We have done so because a prohibition of opium for the purposes of general and moderate consumption in India—and it is such a prohibition that the Society for the Suppression of the Opium Trade contemplate—would strike at long established habits of life, habits which have acquired the force of a second nature or necessity among large sections of the Indian population. But there is another aspect of the case, the abuse of opium, the miseries which arise from that abuse, and the "opium dens" of the great Indian seaports, such as Calcutta and Bombay. That aspect of the question must be fairly faced by any one who pretends honestly to inform the English public of the facts. But, before passing to that aspect, we would ask the anti-opium advocates what they, in sober earnestness and truth, expect that the opium-using populations of India will gain by the suppression of opium? Do they expect that those populations will give up the use of any form of stimulant, or do they expect that those populations will have recourse to some less deleterious form of stimulant? If they expect the former, they expect a result which has never yet been attained in any country. They expect that non-Christian races, subject to all the predisposing causes which lead tropical populations to the use of stimulants, and which, in malarious deltaic tracts and hot, damp river valleys, render the use of stimulants or narcotics almost a necessary condition to health, will suddenly attain a degree of self-restraint which more than a thousand years of Christian teaching have not accomplished in the temperate climate of England.

They cannot honestly expect such a result. The only result will be the substitution of some other form of stimulant or narcotic. Now, what are the alternative forms in India? There is, first, the use of spirits, and, second, the use of the Indian hemp in one form or another, practically of *bang*. We have had sufficiently wide and sufficiently sad experience of what the first alternative means. The Aborigines Protection Society and similar philanthropic bodies can testify clearly as to the results of the introduction of spirituous liquors among tropical peoples unaccustomed to their use. But to many of the finest races of India, and to some of the very races who are the habitual moderate consumers of opium, the general use of spirituous liquors would, first of all, and apart from subsequent results, involve a breaking away from the dictates of their religion, and the disruption of the moral restraints which such a revolt implies. The other alternative, the habitual use of *bang*, would be a cheaper one, but it would be infinitely more deleterious. The *cannabis indica*, or Indian hemp, can be surreptitiously grown by the side of every ditch, on every dunghheap, and in every homestead garden, throughout wide provinces of India, and with ease in all. It is difficult to regulate the use of preparations made from the plant; it would be impossible to stop it. Yet those preparations are more seductive, and

infinitely more destructive to the mind and body, than opium. We believe we are right in stating that deaths from the use of opium are almost unknown in Indian hospitals, and that crimes from the abuse of opium are almost unknown in our Indian courts. But *dhung*, even used on a small scale, as at present, sends every month its batch of victims to the Indian lunatic asylums, and produces every year its tale of criminal insensates who run amuck in Sepoy regiments, and perpetrate tragedies in Indian village life. To prohibit the general and moderate consumption of opium in India would practically drive large sections of the population to the use of spirituous liquors and *dhung*.

That opium is sometimes abused in India we admit, but the evidence shows that its abuse is infinitely less common than the abuse of intoxicants in England. What a happy change there would be in the sheets of our police-courts, in the presentments of our grand juries, and in our hospital returns, if crimes, accidents, and deaths arising out of the abuse of spirituous liquors were eliminated! We are within the truth in asserting that such crimes, accidents, and deaths form no appreciable element in the criminal and hospital statistics of India. The effect of a full dose of opium is to produce a temporary state of lethargy or dreamy repose, just as the effect of a full drink of spirituous liquor is to produce a state of excitement, bluster, and loud talk. To the Indian observer the noisy effects of drink seem shocking; to the British observer the soporific effects of opium seem revolting. To a high-caste Hindoo a British publichouse appears "a gate of hell," to a British philanthropist an Indian opium shop is an "opium den." That sad scenes take place in both is, unfortunately, too true. But that opium shops, regulated by the stern Indian Excise law, are, as a rule, "dens of infamy" we emphatically deny. The Indian native papers go so far as to say that the man who takes opium in excess is almost always a man who has been impelled gradually to increase his dose by some painful internal complaint. This is a matter for Indian medical experts, and it is one on which Sir George Birdwood, M.D., the Chairman of the Indian Section of the Society of Arts, is peculiarly qualified to speak. "Opium shops," says the *Bengalasi*, the leading vernacular newspaper in Bengal, "opium shops as such, possess no attractions for the people; their existence simply makes it easy for habitual opium smokers to buy the drug for their use. Not a man is attracted to them by their mere appearance, as in the case of liquor shops. An opium shop has nothing of the wine shop's attractive glitter of glass and beauty of label."

A searching official inquiry has been made as to the status, occupations and habits of life of the persons who frequent opium shops in India. The results have been placed before Parliament, and they abundantly prove the five following conclusions, set forth in one of the papers:—

1. That opium smoking or eating, as practised by the vast majority of people who use the drug, is not carried to excess.
2. That the moderate consumption of opium is no more harmful than the moderate consumption of liquor, and in many cases, like the moderate consumption of liquor, is distinctly beneficial.
3. That the increased revenue from opium is due (a) to the more effectual steps taken to prevent smuggling, (b) to the increasing population, and (c) to the increasing prosperity of the people, which gives them more money to spend on luxuries.
4. That the "opium sot" is a much less harmful person to his family and his neighbours and the community generally than the drunkard; and
5. That Government, even if it tried, could no more prevent the consumption of opium than the consumption of drink. It would be useless to attempt to achieve either end; it would be worse than useless. It would in my opinion be a blunder, for I can see no weight in the reasoning that would prevent the vast bulk of the population indulging moderately in the

opium luxury, simply because a very small minority harm themselves by indulging in it to excess.

If we go into the methods by which these conclusions have been arrived at, the evidence is still more striking. A shop-to-shop visitation proved that the ordinary frequenters of the so-called "opium dens" were, for the most part, respectable working men and small tradesmen; in short, very much the same class of people as those who frequent liquor shops in England. "Almost all the smokers," wrote Dr. Morrison of a Bengal opium shop, "are of the labouring classes—tailors, day labourers, and one or two shopkeepers." The thorough-going census taken in the Bombay opium shops conclusively verifies this description. One enumeration, taken in 14 opium shops, gave a return of 227 smokers; of whom 188 were workers, 38 were beggars, and one was a thief. Another, and independent, return estimated that, of the frequenters of Bombay opium shops as a whole, not less than "70 per cent. were regular craftsmen and labourers, at the most 20 per cent. beggars, and 10 per cent. bad characters." Mr. J. M. Campbell, the officer who supplies these returns, is a man bred in a Scottish manse, and very keenly alive to the evils incidental to the abuse of opium. But his final conclusion is:—"So far as I can judge, Government do nothing to increase opium smoking; and, beyond the determination to keep the practice at a minimum by preventing the use of illicit opium, and by maintaining the high price of licit opium, Government can do nothing to stop it."

We have confined our attention to-day to the moral aspects of the question. We have done so because we believe that, on moral grounds, any attempt to prohibit the use of opium would be fraught with consequences infinitely more harmful to the Indian races than even the abuse of opium, so far as it is at present abused. The financial injustice to the Indian taxpayer; the economic wrong done to a poor agricultural population by depriving it of one of its most lucrative crops; the costly and oppressive customs line of over 2,000 miles which we should have to throw round the native States; the impossibility of preventing imports of opium into India from China, the Persian Gulf, and other countries around our vast Indian frontier; the complications and quarrels with the feudatory Princes, and the resistance of our own people; all these results of an attempt to suppress the use of opium in India we leave untouched. For it is in the name of morality that the anti-opium party will appeal to the British elector to prohibit the use of opium in India; and we believe that such a prohibition is indefensible on moral grounds, and would lead to the demoralization of the Indian races.

THE OPIUM QUESTION.

A crowded meeting of the Indian section of the Society of Arts was held on Thursday afternoon, at their rooms in the Adelphi, to hear a paper read by Mr. G. H. M. Batten, of the Bengal Civil Service. In the reading of the paper and the subsequent discussion much warmth of feeling was manifested, both in favour of the reader's opinions and in opposition to them.

The chair was taken by Sir John Strachey, and there were present Sir Rutherford Alcock, Sir Thomas Wade, General Sir R. Strachey, Sir Steuart Bayley, Sir Joseph Fayer, Sir George Birdwood, Sir William Moore, Sir Lepel Griffin, Mr. H. N. Lay, C.B., Dr. F. J. Moutat, Dr. Brudenell Carter, Mr. Seton-Karr, Sir Alexander Wilson, Mr. S. Smith, M.P., Surgeon-General Murray, Brigade-Surgeon Pringle, Surgeon-General Cornish, C.I.E., Mr. Donald Matheson, Sir R. Meade, Sir Juland Danvers, Sir P. Canliffe Owen, Admiral Sir Erasmus Ommanney, Colonel Malleson, C.B., General MacLagan, Mr. G. W. Allen, Colonel E. T. Thackeray, V.C., the Rev. Harry Jones, Dr. George Watt, Sir Leppoc Cappel, and Mr. J. G. Alexander, secretary of the Anti-Opium Society.

The CHAIRMAN briefly introduced Mr. Batten to the meeting, and said that he was one of the greatest authorities living on the subject.

Mr. BATTEN, in the course of a very long paper, said—Long before British rule was established in India, opium was exported to China, and the trade in it, in common with all other trade, naturally developed under that rule. In the five years ending with 1833-34, the average quantity of opium exported was about 17,500 chests. The highest point to which it has ever attained was in 1879-80, when 105,508 chests were exported, but the present average is about 90,000 chests. Thus, while the general exports have increased fifteen fold, opium exports have increased only about five and a half times in volume in 57 years. The cause of this will be found in the restrictive measures of the Government of India. India is essentially an agricultural country, and nearly the whole of its exports consists of products of the soil. One of the most important and valuable of these products is the opium-yielding poppy. It is impossible to state with accuracy when this plant was first introduced into India. There is little record of its early history, but it is known that the Mohammedans had succeeded, in the 15th century, in introducing the cultivation of the poppy into Cambay and Malwa, and that when the Emperor Akbar, in the latter half of that century, established the Mogul Empire over Central India, he found Malwa opium a characteristic product of that country. The East India Company, in fact, inherited from the Mogul Government this important and legitimate source of revenue on an article of luxury. The State monopoly continues to be administered by the Bengal Government, although its operations now extend into the North-West Provinces and Oude. Under it, no person may cultivate the poppy except with a licence from the Government, and every cultivator is bound to sell the opium produced from his crop to the Government, in whose two factories, at Patna and Ghazipur, it is manufactured into the opium of commerce. Fluctuations, which formerly greatly affected the market prices of opium, led to speculation and gambling amongst the buyers for export, and caused corresponding uncertainty in the Government revenue. When, owing to the shortness of the supply, the price in Calcutta rose high, the direct effect was to stimulate the production of other opium competing in the foreign market with the Bengal drug, and amongst these the native production of China. In 1869, owing to short crops, before there had been time to form a sufficient reserve, there were less than 45,000 chests brought to auction. Sir Richard Temple, who was in charge of the Financial Department, in his Budget statement, made the following remarks:—"The Government of Bengal is taking active measures for increasing the supply of opium for the China market to 60,000 chests annually, and for securing a reserve supply which may assure the public as to the quantity to be brought to sale, and may conduce to the checking of undue speculation in prices. There is fear that unless the supply can be improved next season, after these two deficient seasons, the cultivation of the poppy in China itself will be stimulated. For some time past positive accounts have been received of the increase of this culture in China. It is clear that unless Bengal

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produces enough opium the Chinese will raise it for themselves. And if the Chinese will have opium, they may as well get it first rate from us as second rate at home, and they may as well consume it taxed as untaxed. Again, if they do not procure it from us, they might procure it from Asia. The culture of the poppy in Persia is increasing, and some 4,000 chests are exported annually from that country." Here we have an exposition of the policy of the Government of India. In pursuance of this policy, the Government yearly regulates the extent of the poppy cultivation, guided chiefly by the market prices and the stock of opium in hand. No one is forced to grow a crop of poppy against his will. The total annual value of the poppy crops in India appears to be as follows:—Bengal crop, £7,000,000; Punjab crop, £100,000; Malwa crop, licitly consumed in British India and exported by sea, £4,000,000; Malwa crop, consumed in Central India, Rajpootana, and Baroda and smuggled thence, £2,000,000—total, £13,000,000. This is divided between the producers and manufacturers, the landlords, the British and native administrators, the middlemen, merchants, shippers, vendors, &c., of India, and is paid by the ultimate consumers, principally Chinese. Thirteen millions sterling is a very moderate estimate of the sum India is asked to sacrifice annually by suppressing her opium trade. The demand for this sacrifice is made not by the people of India, not by the people of China, not by the responsible administrators of those countries, but by an irresponsible party of philanthropists seeking to obtain their ends by the despotism of the Parliament of the United Kingdom, in which India has no representatives. The basis of this demand is the hypothesis that, except for medicinal purposes, the use of opium is wholly pernicious, that it demoralizes and ruins, body and soul, the consumer, and that it produces no countervailing benefits which for a moment can be compared with the evils it causes. A second reason given is that the English people have created the demand for opium by the Chinese; that they have compelled the importation of Indian opium into China by force of arms, and that they are, therefore, morally responsible for the asserted degradation of the Chinese from the use of this drug. Mr. Batten then proceeded to examine the validity of these reasons, and then passed on to criticize the proposals of the Society for the Suppression of the Opium Trade, as to the actual practical steps to be taken to arrive at their object.

Mr. SAMUEL SMITH, M.P., opened the discussion. He said the papers struck him as being exceedingly one-sided and a mere piece of advocacy, for the course taken by the Government. The crucial point of the controversy lay in our dealings with China. ("No, no.") The writer made out that we had simply inherited a pre-existing trade in opium. But a hundred years ago the amount shipped was a mere handful—so small as to imply that it was only used for medicine. The Chinese Government prohibited the importation, but the East India Company sold constantly increasing amounts to smugglers. ("Hear, hear," and expressions of dissent.) At the end of last century 4,000 chests were smuggled. The Chinese Government then made it a capital offence either to import or smoke opium. The result was the war with China of 1839, the cause of which was the destruction of 20,000 chests of opium. That war was the most disgraceful war ever entered into by this country. ("No, no.") We could not get China to legalize the importation of opium. (Sir Thomas Wade.—We did not try.) (Much laughter.) Mr. Smith then quoted Sir T. Wade and Sir R. Alcock in support of his views. In the course of his remarks he was interrupted by expressions of dissent and a running commentary by Sir Thomas Wade, Mr. Batten, and others.

SIR THOMAS WADE said that the excellent paper just read expressed the views which he himself entertained on the subject. There was no doubt that much evil was involved in the consumption of opium, and he sympathized with the sincerity of the convictions of the Anti-Opium Society. But he regretted the historic perversions and misrepresentations—he could use no other words—in which the society had indulged. What he had said had not been correctly interpreted by Mr. Smith, who, like many others, had not carefully studied the history of our relations with China before the outbreak of the first war. The seizure of opium was only the occasion of the war of 1839, but the real causes were to be sought in other directions, and opium had very little to do with the subsequent war. He would remind Mr. Smith that one of the Chinese authorities whom he had quoted had joined missionaries with opium (laughter) as the greatest evil from which China suffered. Nothing but the reform of the individual and the evangelization of China would cure the evils from which China suffered. But to effect that evangelization it was necessary to send a widely different class of missionaries from those who were

now sent. None but highly-cultivated men, able to cope with the learning of the Chinese, would make any way in preaching the Gospel. (Hear, hear.)

Mr. COMMISSIONER HORATIO NELSON LAY, C.B., gave a brief history of the use of opium in China and our trade and the different wars with China. From 1722 to 1799 the use of opium was allowed, and even after the formal prohibition issued in the latter year there was practically no restriction on its importation. There was no foundation for the charge that we had forced by war the acceptance of Indian opium by the Chinese.

SIR LEELE GRIFFIN was called upon by the chairman, but loud cries were raised that the discussion was not being conducted fairly, and that only one side of the question was presented. The speaker was at last permitted to proceed, but his remarks were frequently interrupted. He said that during all his official career in India he had never known a crime committed under the influence of opium. The two finest races of India—the Sikhs and the Rajpoots—were also the greatest opium smokers in India.

Mr. J. G. ALEXANDER, secretary of the Anti-Opium Society, said no trade could be ultimately beneficial which was based on the impoverishment of one of the parties engaged in it. The poppy was grown on some of the richest soil of India, which could well be devoted to food crops. As to the superiority of the Indian to the Chinese opium, that superiority consisted

solely in its greater intoxicating effect. The society had abundant evidence of the enormous evil entailed by the consumption of opium. Mr. Alexander read in support of his views extracts from a publication by Lord Justice Fry on the subject. With respect to Barmah, it was incontestable that opium was an unmitigated curse to Barmah, as it undoubtedly was to China.

SIR GEORGE BIRDWOOD, interrupting Mr. Alexander, pointed out a passage from a despatch from Sir Charles Bernard, who had been Chief Commissioner for Barmah, expressing the opinion that no evil effects resulted from the use of opium. Sir George Birdwood, continuing in spite of loud protests, went on to say that during a long medical experience he had never known a death from opium.

Mr. ALEXANDER, continuing, quoted Professor Legge and Catholic and Protestant missionaries in support of his views, and said that no native evidence had been adduced in favour of the use of the drug.

The CHAIRMAN briefly thanked Mr. Batten for his interesting paper, and the meeting, which was an unusually protracted one, separated.

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INDIAN AFFAIRS.

A remarkable Essay on the relations of a mother country to her dependencies, lately published in Paris, is full of significance to the British rulers of India at present. The author, M. Jules Harmand, is one of the few living Frenchmen who combine a practical knowledge of their own colonial system with a close and accurate observation of the working of the Anglo-Indian methods of government. During nearly a century the India of French writers has been the scenic India of the Governor-General's Court and the Rajah's palace, the India of the tiger hunt and the darbar. The travelling Frenchman, however high may be his scientific aims, and however distinguished his intellectual attainments, is essentially a traveller in search of the picturesque. M. Harmand approaches the subject not as a traveller, but as a trained administrator. After rendering valuable services to his country in its Asiatic possessions, he was appointed Consul-General at Calcutta with the rank of Ministre Plénipotentiaire, and has since been deputed by his Government on a special mission to Chili. He now condenses the results of his long experience from Cochin-China to South America into a short treatise, admirable as to its literary form,

and without a rival in regard to its political value since Mr. Lucas's edition of Sir George Cornewall Lewis's "Government of Dependencies."

M. Harmand relates how he had resolved to devote his leisure to an elaborate account of the policy of administration of the English in India. But it would seem that works on India have as small a chance of being remunerative to either author or publisher in France as in England, and M. Harmand had to abandon his scheme of a complete treatment of the subject, owing to the unlikelihood of finding a firm "who would take the risks." An opportunity occurred to him, however, of accomplishing his purpose on a more restricted scale, as the translator of Sir John Strachey's memorable lectures before the University of Cambridge, subsequently embodied in his standard work on India. The Société des Editions Scientifiques accepted the proposal, and M. Harmand has been enabled to state his own views in an Introduction of 71 pages to the French translation of Sir John Strachey's book. The result is an exposition of the French view of our Indian system of Government, founded for the first time on accurate personal study, and a comparison of that system with the French administration in Tonquin which is replete with instruction, and pregnant with warning, alike to the French and the British nations.

M. Harmand bases his criticism, and, indeed, his whole treatment of the subject, on the fundamental distinction between the two great classes of dependencies—Colonies and Possessions. A Colony, he points out, is a dependency created by emigration, with a climate which permits of its being cultivated by the emigrants from the mother country, and in which the pre-existing inhabitants are usually few in number or of a distinctly inferior race. A Possession is the convenient term adopted for a conquered dependency in which the actual tillage of the soil is impossible or very difficult, for emigrants from the mother country, owing to the climate, and in which cultivation and manual work in general have to be done by the indigenous inhabitants. The distinction is not a new one, but M. Harmand pushes it to its ultimate conclusions with the rigorous logic of a Frenchman. He shows how in colonies the immigrant settlers must sooner or later obtain political rights similar to those of their fellow-countrymen in the mother country; while the weaker pre-existing races must deteriorate or altogether disappear in the struggle for existence; *duas lex, sed lex*. In possessions, on the other hand, the indigenous races are factors of high importance, on whose conciliation and incorporation into the administrative system the stability of the ruling Power ultimately depends, but who must never be permitted to encroach on the supreme political authority of that Power. Such a possession, says M. Harmand, is Tonquin; such a possession is British India. The fact that Tonquin has 20 millions of inhabitants, while India has 288 millions, does not affect the underlying principle on which depends the wise government of both. For in both the problem is how to incorporate the interests of the indigenous peoples with those of the conquering race, by every concession compatible with the safety and the undisputed control of a foreign and numerically small governing body.

M. Harmand tries by this principle each part of Anglo-Indian polity. The conclusions to which he comes may surprise certain British critics of our Indian Government. We printed last week two letters which fairly represent the opposite extremes of Anglo-Indian opinion. Colonel Malleon, whose long and valuable services to Indian history must always secure for his views

a respectful hearing, warned his countrymen in emphatic language against the progressive character of Lord Cross's Indian legislation. "The recent tampering with the marriage law of the Hindus," he wrote, "has already aroused suspicion. The present endeavour to introduce into an Oriental community a system" (of representation) "unknown to their ancestors, and hateful to all the component parts of it except the men who cannot wield the sword, will produce, if acted upon, a movement which will tend to sever the connexion between England and her greatest dependency. . . . The fourth clause of Lord Cross's Bill places in the hands of the Governor-General for the time being the power to bring about this great calamity, and who can say that it will not be exercised?" If it be sanctioned, he declares "that it will, sooner or later, snap the tie that binds India to England." Solemn words these, but equally solemn, if less weighty, is the warning of Mr. H. M. Hyndman on the following day as to the inadequacy of all our legislative measures to meet the actual necessities of India. In defending Mr. Hume's still stronger language—language which even the Indian Congress party has thought it necessary to condemn—Mr. Hyndman writes to us:—"Is it surprising that, in sheer despair at the prevailing apathy on the question in England, he should resort to extreme measures?" India, he concludes, cannot continue to bear the burden of the home charges and remittances, "without, as I venture to predict, hopeless ruin to the population under our rule." It is evident that Lord Cross has signally failed to satisfy either of the extreme schools of Anglo-Indian critics. Yet it is precisely in this incapacity to satisfy such critics, and in this poise between extremes, that M. Harmand finds the strength and the wisdom of the British government of India. As regards the organization of political control, he pronounces that government "un modèle de sagesse et d'équilibre."

But it is rather in his detailed scrutiny of the British Indian system than in his generalizations, however brilliant, that the value of M. Harmand's essay lies. On one great question of the day, alike for France and England, the representation of their dependencies, M. Harmand does not hesitate to declare against the French system of their sending members to the Home Legislature. He would open the Legislative Councils in the dependencies themselves to native members. He would even admit the elective system under certain restrictions, and subject to the over-ruling principle that the composition of the Council is so arranged that "le Gouvernement ait toujours le dernier mot." He would give the largest measure of financial and administrative independence to the possession consistent with its complete political control. In this combination of local autonomy with an unassailable central authority, as worked out in British India, he finds an achievement infinitely more marvellous than the original conquest of that Empire. It seems to him the root of the industrial and moral development of India. Indeed, "sans l'autonomie de l'Inde, la décadence du Royaume-Uni marcherait peut-être à grands pas." But the rights so granted "should never be allowed even to raise any question as to our unwavering determination to share with no one the functions of supreme direction and of the highest executive control." The English, under the influence of preconceived theories and humanitarian doctrines, seem to M. Harmand to have passed the limit of safety in this respect. They have also, in his opinion, stimulated higher education on a foreign Western basis at an artificial, and perhaps a dangerous, rate; an opinion apparently arrived at in an acquaintance with the measures taken of late years to make higher and lower education in India proceed at a more equal pace, measures which were at once the fundamental aim and the

most important achievement of the Indian Education Commission. He thinks, and every Indian financier thinks with him, that the English Treasury, although just in essentials, is inclined to drive hard bargains with the Indian Exchequer.

But, while Colonel Malleon and Mr. Hyndman would each be able to draw individual arguments from M. Harmand's frank criticisms, they would find the main weight of his conclusions equally opposed to them both. For, on the one hand, M. Harmand is deliberately of opinion that great dependencies such as the Asiatic possessions of France and England "should be organized like real States, provided with all the organs necessary to the life and functions of States, and endowed with all the characteristics which constitute States—one only excepted, political independence." Yet, on the other hand, he has no sympathy with those who regard as an injurious drain upon India the cost, whether paid in India or England, of the railways and material appliances for the development of India, or of the strong civil Government and armed force which alone have rendered that development possible. To him the money seems well spent which has rescued India from a state of insecurity, lethargy, and poverty, and awakened her to a new industrial and progressive life. In one weighty sentence he sums up the results of his practical experience of the government of Eastern dependencies, declaring with a courage honourable alike to himself and to his countrymen, to whom he addresses the words, "that the application of the principles carried out by England in regard to her Asiatic empire is the sole method which will enable the French to accomplish the true objects which they should place before them in their Indo-Chinese Possessions."

Among the dangers to the dependencies of a European constitutional country, M. Harmand reckons the uninstructed and interested action of Parliamentary parties. He points out that the British administration of India has, happily for its success, been comparatively exempt from this baneful influence. But in a later passage he refers to the perils arising from the *idées préconçues* and *théories humanitaires*, of which we Englishmen are so wisely suspicious in governing ourselves, but which we are so ready to apply to the government of others. The worst possible form of Parliamentary intervention would probably appear to M. Harmand to be a coalition of preconceived humanitarian theories with the brute force of party pressure. It is precisely by such a coalition that the anti-opium party are now threatening alike the sobriety of the Indian races and the solvency of the Indian Government. With many of that party it is not a question of fact but an impulse of sentiment. It seems in vain to point out to them that to deny the Indian races the moderate use of opium would inevitably force on those races the alternative of two infinitely more deleterious stimulants—ardent spirits or the maddening and mind-destroying *bang*. The anti-opium party cannot, and as a matter of fact they do not, believe that the non-Christian peoples of India, subject to all the cravings and temptations of a tropical climate, will suddenly attain a degree of self-restraint which would enable them to abstain altogether from stimulants or narcotics—a degree of self-restraint which more than a thousand years of Christian teaching has not yet achieved among any nation even in the temperate zone. The disastrous results to the Indian races are as nothing to the anti-opium zealots compared with the triumph of what M. Harmand would call their "preconceived humanitarian theories."

If an overwhelming exposure of unfounded assumptions and of untrue statements could kill a popular prejudice, the facts brought forward at the meeting of the Society of Arts on the first day of this month would have given a death-blow to

the anti-opium movement. Its historical falsities were laid bare by men of the highest reputation and closest personal knowledge of the facts, like Sir Thomas Wade. Its medical mis-statements were exposed by the heads of the Indian medical profession, including honoured names like those of Sir Joseph Fayrer, Surgeon-Lieut.-Colonel Hendley, and Sir William Moore. Its arguments, based on the alleged social and physical evils incidental to the use of opium as compared with the use of alcohol, were conclusively refuted by administrators and physicians who had had the amplest opportunities for learning the truth, and who have no motive for concealing it. The most emphatic of the speakers against the anti-opium agitation were perfectly independent witnesses—men who have no present or prospective connexion with the Government, and who had simply come together to try to prevent a great wrong being done to the peoples of India.

But the worst of a popular prejudice is that when its brains are out it does not die. Against the facts is stolidly opposed the argument of numbers. It appears sufficient that the ignorant asseveration of a few well-meaning but uninstructed persons should be reasserted by several thousand of equally well-meaning and equally uninstructed other persons in order that false history should be come true history, that false science should become true science, and that unfounded statements should become convincing arguments. In reply to the unanswerable evidence of Indian medical experts we are assured by a medical gentleman that 5,200 other medical gentlemen had signed "the declaration against all indulgence in opium." But the medical gentleman must surely be aware that there are at least the same number of men in his profession in Europe and America, and among the medical missionaries throughout the world, who would be equally willing to sign "a declaration against all indulgence in alcohol." Such a declaration, however numerous or respectable the medical signatories, would never persuade the British Government to deprive the British middle classes of their bottle of wine or the British working classes of their glass of beer. As to the value of the medical opinion thus given, the speaker who urged it seemed to be unaware that in the very delta of Orissa, to which his personal statements referred, the prophylactic uses of opium had formed the subject of exhaustive inquiry. Dr. Vincent Richards, one of the few toxicologists whom the Indian medical profession has hitherto produced, and a man whose life was consecrated to scientific labour without a thought of self-interested results, minutely worked out the percentage of the population in an Orissa district which consumes opium, and thus records the main results:—"That moderation is the rule. That whatever the effects of the excessive use of the drug may be, when taken in moderation it is positively beneficial, where such diseases as fever, elephantiasis, rheumatism, &c., are prevalent, and when food is scarce. That the effects of even the excessive use of opium are harmless, both to the individual and to society, compared with those of the excessive use of alcohol."

But it is not medical evidence which forms the mainstay of the anti-opium party. For medical evidence is capable of being examined, weighed, and having its proper value or no-value assigned to it. It is on the brute force of monster petitions, signed by persons who have confessedly never studied the subject, but whose mere numbers are supposed to be able to concuss Parliament, or to frighten candidates at a general election, that the anti-opium movement relies. Mr. Bhownagree, the Judicial Member of Council of the Native State of Bhavnagar, now on a visit to England, and without any conceivable interest in the subject, except that his countrymen would be demoralized by the substitution of alcohol for opium, has given a realistic narrative of how such petitions are got up. We reproduce

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his description in full. For it shows how a statesman of feudatory India regards this method of government by monster memorials, and the sense of injustice and the hopelessness of redress which it leaves on his mind.

Mr. Bhownagree says in the report of the proceedings at the late meeting of the Society of Arts:—

As regards the present agitation, I crave leave to relate a little information I have gathered about it. I went to a meeting held last night at the Fraser-street Mission-hall, at Chiswick, where Mrs. Lynn was announced to deliver a lecture on opium, illustrated by lantern slides. In the course of the lecture (which was ably delivered, but full of gross misrepresentations), of the lime-light slides exhibited, two represented a few Chinamen lying wounded or dead, with a due proportion of blood dabbed on their bodies—these, the fair lecturer explained, were the men "murdered" by the Queen's murderers, who, she further explained, were British soldiers, in that great British crime, the Chinese war. She paused here to exhort her hearers not to let a son of theirs be enrolled in the British Army! Another of the plates represented an opium warehouse in India, and yet another a retail shop; these, the lecturer explained, were her Majesty's poison stores. A hymn was sung later on at the meeting, in which it was said that "the influence of English rule on India" had been baneful. At the end of the lecture the chairman drew out from his pocket a printed memorial, stating that he, and he hoped the audience, were satisfied that the opium policy of the British Government needed immediate annihilation, and therefore asked them to empower him to sign the memorial which contained a prayer to that effect, on behalf of what he called the "public meeting." I might state here that, in the usual speech introducing the lecturer, the chairman had distinctly stated that he knew nothing about the opium question, and that "he did not want to betray his ignorance" by speaking at length. After the memorial was read, or rather mumbled over, I thought it my duty, as a British subject, knowing something about India, and, as a resident of Chiswick, to ask if I might be allowed to speak before the vote of the audience was taken on the memorial. I told the chairman that the lecture was full of exaggerations and misstatements; that all the arguments employed were one-sided. The chairman said the meeting was only for a lecture, and not for discussion, and the paper before it was only a memorial, not a petition; and that therefore no discussion was expected or allowable. I bowed to the decision, only pointing out that, whatever it was—memorial or petition—it was not fair to spring such a paper on the audience, and to pass it without hearing remarks offered on the other side. The chairman, however, hurriedly called for the vote, and declared the memorial "passed unanimously." Thus the voice of the public of Chiswick was added last night to the unanimous voice of all parts of Great Britain, calling upon the responsible ministers of the Crown to stop in India the growth, consumption, and trade of the poison "which," to use the fair lecturer's reiterated phrase, "the Christian Queen of England was manufacturing to kill not only her own subjects with, but those of the heathen Emperor of China."

We turn from this mournful spectacle of well-meaning British busybodies trying to coerce Parliament, by the unreasoning force of monster memorials, into a course of action which would inflict a grievous wrong on the Indian cultivator and the taxpayer, and which would inevitably bring the curse of alcohol among some of the finest of the Indian military races; we gladly turn from it to an unpretending record of good administrative work done in India itself. Mr. Rees's narratives of "Lord Connemara's Tours in India," to which we have more than once referred with well-merited commendation, have just been collected into a handsome volume by Messrs. Kegan Paul and Co. Almost at the same time the summary of the principal administrative measures during Lord Connemara's Governorship, printed at the Madras Government press, has reached England. This summary is similar to those drawn up from time to time by the Government of India, but on a smaller scale. It forms, from the necessity of the case, a bald administrative narrative, which probably will not be read by a score of persons outside the Madras secretariats and departmental bureaux. Yet we know of no other volume of the same size which so vividly brings home to the student the wide

scope of Indian administration, and the amount of practical sagacity promptly and unerringly applied to it, or makes him more clearly realize the burden which that administration means to the men responsible for it. Lord Connemara had three of the most important qualifications which an Indian Governor can possess—a keen practical insight, unflinching courage, and a genuine sympathy for the people.

One instance out of a hundred must suffice. The administration of the native State of Mysore has of late years attracted high praise from the Supreme Government of India. Yet in 1887 Lord Connemara found the administration of that State staggering under virulent attacks from interested pamphleteers. He determined to find out the facts on the spot. Having satisfied himself by searching personal inquiries that the attacks were unfounded, he gave the State Administration his strong support; and the bestowal of a Knight Grand Commandership of the Star of India testified to the world that the Maharaja had the full confidence of her Majesty's Government. The subsequent progress of the Travancore State has amply justified that confidence. Such incidents seldom find a place in history. But they are the unnoticed incidents which test the strength of a Governor, and which make the feudatory Princes of India feel safe under theegis of the British suzerainty.

Graaff's Kunst Advertiser
March 2. 1892

Strychine in Snake Bite.

SIR,—The letter on the above subject by Mr. Andrew Smith in your issue of the 27th of August last contains various mistakes, to which I beg to reply.

Your correspondent does not appear to know that the notion of the viper poison being a blood poison, that of the colubrine snakes a nerve-poison, is now quite exploded.

Tesktistrow's celebrated experiments were made with viper poison only, the snakes being—*Vipera Berus*, *Vipera Bimodytes*, and *Crotalus Curisus*. These experiments proved most conclusively that viper-poison is a nerve poison. They were over 200 in number, and in every particular confirmed the theory previously published by me but formed from observation of the symptoms produced in man by colubrine poison—namely, that it causes paralysis and in some cases paralysis of the motor and vaso-motor nerve centres. See *Experimentelle Untersuchungen über Schlangen Gift*, by A. Tesktistrow St. Petersburg, 1887.

This proof is in itself sufficient, but another one equally conclusive has been rendered by recent Australian experience. All our Australian snakes are colubrines, with only one formidable exception—the death adder—*Acontophis antarctiens*. A bite from this viper was, as its name implies, considered certain death previous to introduction of strychnine as antidote, and you will see from this month's *Australian Medical Gazette*, that the venom yields as readily to strychnine as does that of all our other snakes.

Mr. Smith's proposal that, previous to the introduction of strychnine as antidote for snake bite in South Africa, a series of experiments should be made with it on animals is a strange anachronism. He evidently does not know that such experiments have been made elsewhere *ad nauseam*, and in a majority of cases with disastrous results to the unfortunate animals. The inevitable conclusion to be drawn from them and the overpowering proofs of the efficacy of strychnine on man suffering from snake poisoning is simply this, that the motor nerve centres of animals, more especially of cats and dogs react very differently against the combined influence of the two poisons named from those of man. Mr. Smith's proposal would therefore be quite inappropriate, even if there were any risks in the proper use of strychnine, but there are none at all. At the worst it produces a few harmless muscular twitchings, and their advent is signal that the snake poison is effectually conquered and the antidote no longer required.

The serious and highly responsible task assigned by your correspondent of preventing or least delaying the adoption of the Australian method of treating snake bite in your Colony should not have been undertaken by the gentlemen in total ignorance of the latest developments in this field of research. I do not know the amount of mortality from snake poisoning in South Africa, but even if only one human life is lost yearly through this cause and continues to be lost through the omission of proper treatment, those who brought about this omission by such efforts as those under review are morally responsible for the deaths.

A. MUELLER, M.D.

Peshawar, Victoria.

December 29th, 1891.

Agricultural Journal.

[Dr. Muller is, we believe, head of the Botanical Gardens at Victoria.]

EXPERIMENTS WITH SNAKE POISON.

A letter has been addressed by the Government of Bengal to the Government of India regarding the desirability of making experiments in a systematic manner with snake poison for scientific and practical purposes. An opportunity has now offered for dealing with the question on a scale commensurate with its importance. The committee for the management of the Calcutta Zoological Gardens are constructing from private subscriptions, a snake-house with all the most modern improvements which will contain specimens of all the principal poisonous snakes in the country. If the necessary funds were available, arrangements could be made to fit up a small laboratory in connection with the snake-house, for the purpose of conducting inquiries of all descriptions bearing upon the pathology of snake-bite and cognate subjects, and if this were done there would in future be no difficulty in arranging for the carrying out of any special experiments that might be required. It is understood that Dr. D. D. Cunningham, F.R.S., president of the committee, would in that case be willing to take an active part in organising and promoting such inquiries and carrying out such experiments, including the testing of the various alleged remedies for snake bite which are, from time to time, brought to notice. The laboratory, moreover, would be resorted to by the scientific men who, from time to time, visit India for the purpose of making biological experiments, and would probably come to be an institution of some reputation and importance by reason of its offering facilities for experimenting with snake poison such as can be had nowhere else in the world. The state of the Bengal finances is such that it is out of the question that the scheme should be undertaken without the assistance of the Government of India; and the object in question, though one with which the Lieutenant-Governor thoroughly sympathises, is for the most part of Imperial rather than of provincial interest. If the Government of India will, however, make a grant of Rs. 5,000 towards this object, the Lieutenant-Governor, a Calcutta paper understands, will endeavour to meet the balance from provincial funds, and will guarantee that all experiments that may be asked for in the future shall be adequately carried out.

UNIVERSITIES ABROAD.

The last 10 or 15 years have witnessed great changes in the attitude of the English people towards education. Elementary education has been made first compulsory, then free; the endowments and efficiency of grammar schools have been subjected to close scrutiny; it has been decided that a sum of no less than £538,600 shall be yearly spent on technical instruction in England alone; local University colleges have sprung up in almost all the large cities of the kingdom; three of these—Owens College (of older foundation), University College, Liverpool, and the Yorkshire College of Science, Leeds—have acquired status as the Victoria University; a sum of £15,000 per annum is granted by Government for the partial maintenance of the metropolitan and local colleges, with prospect of material increase at no distant date; a Royal Commission has recently issued recommendations involving a radical change in the constitution of the Scottish Universities; and lastly, and latest in order of events, a scheme has been approved by the Privy Council for the establishment of a Teaching University in and for London. The "Gresham Charter," however, having failed to command the concurrence of the House of Commons, a new Royal Commission is at present deliberating on the best means of uniting under one head the institutions in London which give education of University standard.

In other European countries there is at present no such educational turmoil. The systems of primary and secondary education have long ago been elaborated; and the Universities pursue the smooth paths of increasing knowledge by research and by the training of students.

Recent correspondence and articles which have appeared in the public Press show that there are in England many conceptions of what a University should be. Many of the writers appear to consider a college as necessarily a hall of residence, as in Oxford or Cambridge; many suppose the primary function of a University to consist in bestowing degrees after a certain course of study; while others advocate the claims of a "University for the People," where weekly evening lectures should lead to recognition of the students as eligible for an associateship or for a degree. There are yet others who imply that the function of a University consists in examination only, and who uphold the University of London as an ideal institution.

In this state of public opinion it is well to cast our eyes abroad, and to inquire what conception of a University is held by the nations of the Continent. Before beginning an experiment it is advisable to study the literature of the subject, for thus only can errors be avoided and a reasonable prospect of a successful issue secured. This is the invariable prelude in these days to all scientific inquiry, and surely the most important of all is—How can knowledge best be increased?

The Universities of the Continent are modelled after one pattern, with the exception of small details of organization and administration; the University of France, established for political purposes by the Emperor Napoleon I., is the only one which differs from the others in any essential particulars. In its centralization has been carried to an extreme; but of late years considerable efforts have been made to decentralize to some extent, which have proved partially successful. The difference between the system prevailing in France and those carried out in other countries is, however, still so considerable that it is convenient to describe the French institutions sepa-

rately before proceeding to the consideration of the Universities of other countries, which resemble each other so closely that they may be treated *en bloc*.

THE UNIVERSITY OF FRANCE.

For the sake of clearness it will be well to divide the matter into heads, and to consider in their order:—

1. The government of the University.
2. The faculties.
3. The staff; the methods of filling vacant chairs; and the duties and emoluments of professors and lecturers.
4. The regulations for the admission of students; and
5. The regulations for graduation.

The title "University of France" is applied to all the institutions for higher education of University rank in France, except some which are designed for special purposes, such as the education of engineers and artillerymen. The University was founded by Napoleon I. in 1806, and was organized by the statutes of March 17, 1808, and November 15, 1811. This University is the centre of all public education—primary, secondary, and of University standard. It is presided over and controlled by the Minister of Public Instruction.

The University is divided into 17 "Academies," each of which is presided over by a Rector, except at Paris, where the Minister of Public Instruction is Rector by right of office, and a Vice-Rector presides as his deputy. Such "Academies" exist at Aix, Algiers, Besançon, Bordeaux, Caen, Chambéry, Clermont, Dijon, Lille, Grenoble, Lyons, Montpellier, Nancy, Paris, Poitiers, Rennes, and Toulouse. The Rector, who is almost always a past Professor, is nominated by the Minister for an indefinite period; he is the head of the academy. He is assisted by an "Academical Council," the members of which belong to three classes—Inspectors of Academies, General Councillors, and Municipal Councillors. The Academical Council assists the Rector in devising and carrying out regulations for the "Communal Colleges," the "Lycées" (two grades of schools), and for the institutions for higher education, and deals with all matters of administration and discipline which affect them.

But since 1885 this council has confined its action almost entirely to questions relating to primary and secondary schools; for in that year a new body was created; it had long been felt that the interference with University matters of a council, many members of which were ignorant of and out of touch with them, was not conducive to the successful administration of affairs.

1. This new Council is named the "Conseil-général des Facultés." It is presided over by the Rector, and consists of the Deans of Faculties, together with two representatives of each Faculty, chosen by their colleagues. It approximates, as will be seen, to the Senate of the Universities of other countries. Its duties are both educational and financial; the regulations for systematic study and for unity and concordance between the courses of instruction given in the various Faculties are committed to its charge. This Council may compel the cessation of courses of lectures which are found inexpedient, and may create new courses, after consultation with the members of the Faculty concerned. But, in addition to such powers, it has control of the finance of the Academy, and receives periodical reports from the Dean of each Faculty and the officials of the office as regards the expense of their departments during the past, and considers proposals for the finance of the coming year. It is also responsible for discipline among the students.

2. The Faculties.—There are at Paris five Faculties. In some of the other towns there are fewer. For example, at Nancy there are four, at

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Caen three, at Grenoble two. Those at Paris comprise Protestant Theology (the Roman Catholics in France declining to be associated with other institutions in educational matters connected with their religion), Law, Medicine, Science, and Letters. To this list may be added the *École Supérieure de Pharmacie*, which ranks almost as a Faculty. Where there are no Protestant churches, a School of Theology is superfluous; and where there are no hospitals of sufficient size, there is no Faculty of Medicine.

The government of the Faculties is of two kinds. First, the General Assembly of each Faculty comprises all the members of the Faculty—namely, professors, *agrégés*, or persons who are retained by the Academy to lecture on special subjects, but who have not the rank or title of professors, *chargés de cours*, a subordinate class of teachers, and *maîtres de conférences*, somewhat corresponding to the Oxford or Cambridge tutors of colleges. This General Assembly deals with the courses of instruction given in the particular Faculty, and assigns to each teacher his share in the general programme, arranging at the same time for *cours libres*, for which no special fee is paid. Second, the Council of the Faculty, which consists only of titular professors, and *professeurs adjoints* has the power of accepting gifts and legacies; it distributes the revenues of the Faculty and aids the Dean in preparing his financial statement; in case of a vacant chair, it selects from a list of candidates. Besides these duties, it issues regulations regarding the attendance and work of its students. Every member of Council has a vote.

The Deans of Faculty are ultimately selected by the Minister from a double list, each containing the names of two candidates, one presented by the General Assembly of the Faculty, and one by the General Council of Faculties. The Minister is assisted by an assessor, who is one of the two representatives of the Faculty at the General Council of Faculties, chosen by the Minister for this purpose.

The Dean holds office for three years. He presides at meetings of the Faculty and of its Council, he is trustee during the time of his office for funds held by the Faculty, he may accept gifts and legacies, he distributes the revenues of the year among the members of his Faculty, he prepares estimates for the ensuing financial year, and he pays all servants.

It is seen from this short description that there is only one University of France, consisting of numerous academies in the provinces. But during this session, it has been proposed in the Chamber of Deputies and in the Senate (corresponding to our Houses of Parliament) to bestow the name "University" on each local group of Faculties or "Academy" where there are at least the four Faculties of Law, Medicine and Pharmacy, Science, and Letters. Should this proposal be carried out, as seems probable, there will then be seven Universities in France, besides numerous Academies. Bordeaux, Lyons, Lille, Montpellier, Nancy, Paris, and Toulouse will be the seats of Universities; the remaining towns of the list named before will be entitled only to possess Academies. This proposal is naturally opposed by these towns, and at present the matter is still under consideration.

3. The Staff; their duties and emoluments.—The ordinary professors of each Faculty are termed "titulaires." If a new chair is instituted it is filled directly by the Minister of Instruction. He is limited in his choice only by the necessity of choosing some one who possesses a degree of Doctor in the particular Faculty in which the chair is created. Thus a Doctor in Natural Science may fill a chair of Biology or Botany; a Doctor of Physics may be appointed to a new chair of Physics; a Doctor of Medicine may be added to the Medical Faculty as pro-

fessor of one of the medical subjects; and so on.

If the chair to be filled is not a newly created one, the "titular" Professors of the Faculty (the Council of the Faculty), after advertisement, examine the claims of candidates and select from the list two names, giving preference to one. These names are submitted to the General Council of Faculties, which almost invariably ratifies their choice, and are then transmitted to the Minister, who consults a permanent committee sitting in Paris. This committee consists of eminent scientific and literary men; they generally confirm the recommendation of the Faculty. It sometimes happens, however, that they alter the order of the names transmitted to them by the Faculty, giving preference to the person named second on the list. The Minister almost invariably ratifies their decision.

"Professeurs Adjoints."—This title is of recent creation. It is generally given to those persons who have claims on a chair by their seniority and reputation, but for whom no vacancy has occurred. The number of such assistant professors may not exceed one-sixth of the "titular" professors in any faculty. They are selected from among the lecturers (*chargés de cours*), and are nominated to the Minister by the Council of the Faculty. They have the same prerogatives as the "titular" professors, but have no vote in the election of the staff.

"Professeurs Chargés de Cours."—These are nominated directly by the Minister, and it is from this body that "titular" professors and *professeurs adjoints* are selected. They correspond in the main to the "extraordinary professors" of other Continental Universities. They lecture on special subjects, their courses of lectures being submitted to and obtaining the approval of the "titular" professor and of the Faculty.

"Maîtres de Conférences."—These persons are also appointed directly by the Minister; but they require annual reappointment, whereas the members of the former classes are appointed for life. They act as assistants to the "titular" professor, and conduct classes of a tutorial kind.

"Agrégés."—A council which meets at Paris from time to time appoints substitutes for professors who are unable to lecture on account of illness or from any other cause. They also assist, if desired, in examining, and may be required to conduct special classes. They are appointed only for the Faculties of Law and Medicine and for the Higher School of Pharmacy. Those in the Faculty of Law may hold office for an indefinite time; those in the Faculty of Medicine may be re-elected in ten years, but their office is usually allowed to lapse. The "titular" professors are often chosen from among the *agrégés*.

"Professeurs Libres."—This class of teachers corresponds to the *Privat-docenten* of other Continental Universities. They are unpaid; they must be doctors of their particular subjects, and they are licensed to teach by the Council of the Faculty to which their subject belongs.

As regards the payment of the professorial staff, they receive fixed sums from the State. All fees return to the State. This is obviously a mistaken system; for, whether a professor is successful or a failure, whether he attends to his students or neglects them, he is there for life, paid annually, with no pecuniary inducement to busy himself with research or with the needs of his pupils. This system contrasts very unfavourably with those pursued by other Continental nations; for elsewhere the professor has some inducement to undertake higher teaching, either in the direct increase of his emoluments or in the prospect of increasing his reputation and being called to a more lucrative post. But in France there is a nearly dead level of pay; and unless a professor is anxious, for personal or social reasons, to change his chair for another, he is stationed for life in one place.

This is felt to be a hardship by almost all the occupants of chairs; and many of them accept office outside the University in order to increase their incomes. The *adjoints*, *maîtres de conférences*, and *chargés de cours* are also paid fixed sums by the State, which rise gradually to a maximum, as in our Civil Service.

4. Regulations for the Admission of Students.—The session begins in November and ends in July. A student entering the University has to show a certificate of birth, to declare that he has the consent of his parent or guardian, and to present diplomas required by the regulations. He is "inscribed" as student of some particular Faculty; and if he wish to change he must obtain a certificate from the Dean of the Faculty. Such "inscription" is renewed each year and costs 90f. The student must, in addition, pay 10f. for the use of the library; he must also pay for admission to examination to degrees—*e.g.*, in the Faculty of Letters 120f. for the "Baccalauréat-ès-Lettres," 200f. for the "Licence," and 140f. for the "Doctorat." Should he attend a laboratory he pays 600f. a year.

Entry to the tutorial classes, the laboratories, &c., requires the presentation of a diploma of "Bachelier-ès-Lettres," a degree usually taken on finishing the school career and somewhat corresponding to the final exit examination of the Gymnasias, or upper classical schools of other countries; but the courses of lectures are open to anyone who chooses to attend. No one is admitted to study in the Medical Faculty who cannot produce a diploma of Bachelor of Letters or of Science, and in this way the general culture of the medical student is secured. Similarly, a student of law must produce either a diploma of Bachelor of Letters or a certificate of admission to the degree; the students of science must produce similar evidence of capacity in the form of a diploma of Bachelor of Science. These degrees are granted by the Academy, after examination, before the student is admitted. A candidate for such degrees must produce evidence of having completed satisfactorily courses of study at the higher schools, the colleges or "lycées."

A student may migrate from one Academy to another if he receives authorization from the Conseil de la Faculté where he has studied, and if he shows his certificate of "inscription" of the Academy where he has studied last.

In the case of foreigners, equivalent examinations or evidence of study satisfactory to the Faculty gives entry to the Academy.

5. Regulations for Graduation.—As before remarked, the Academy examines pupils of the college before they are allowed to enter on higher studies. For this purpose a committee or jury of the Faculty is constituted, including those professors (of whom one, at least, must be a "titular" professor; usually there are three) conversant with the subjects of examination, together with *chargés de cours*, *agrégés*, or *maîtres de conférences*. Should the candidate satisfy the examiners that he possesses a satisfactory school education and that he is able to profit by the work of the Academy, he is "inscribed." He may then proceed, after two years' study, during which he must attend lectures, practical classes, where such exist, tutorial classes, &c., to the "licence"; and finally to the doctorate. The examination for the doctorate is oral; it is confined to a discussion of a thesis which must be presented by the candidate to the Faculty. In certain cases the Faculty itself suggests to the candidate the subjects of two theses, of which he selects one. He is questioned on the subject of his essay, and should he satisfy the examiners he obtains the degree. Should he present a thesis of remarkable excellence his fees are returned. The examiners are always the student's own teachers, or a

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certain number of them selected by the dean, who compose the "jury." Indeed, it is not understood by those whom I have questioned on the subject how it is possible for any accurate judgment to be formed as to the attainments and capacity of a candidate, except by those who have known him personally and superintended his work during several years.

This short outline of the complicated system of the University of France will have given an idea of its organization and method. It was devised, as already stated, by the Emperor Napoleon to serve as a political engine, the control of which he held in his own hands. The professors who hold office complain of their want of freedom, of the excessive red tape, and of the lack of incentive to exertion, and, last and most important, of the over-teaching. They say that originality is crushed out of their students by too lasting attention to the requirements of the examinations. There is no doubt that the systems at work in other Continental countries are much more productive of good to the students, and serve better as a stimulus to research. Senior students whom I have questioned make the same complaint. They say that they are over-examined, and that the incentive to work is not so much the desire to increase knowledge or the love of their subjects as the necessity of passing examinations. In this they are not alone. It is the drawback of all our English Universities and colleges. We shall subsequently see that the systems of other countries are much more favourable to intellectual growth.

It only remains to give a brief account of other institutions in Paris devoted to higher education. These are:—

1. L'École Normale Supérieure, destined for the education of those who wish to become professors at "colleges" or "lycées." There are two sections, literature and science. Entry is gained by severe competition.

2. The Museum or Jardin des Plantes. This is a self-governing institution under the charge of the Minister of Public Instruction. It receives endowment from the State, and the lectures are free. The professors are selected by the Minister from a double list presented by the existing professors and by the Academy of Sciences. Each professor is obliged to deliver 40 lectures a year. This institution may be regarded as designed to furnish incomes for persons engaged in research, and the lectures are the means by which they inform the public of their results. The attendance at such courses is small, and consists of very mixed audiences, with a sprinkling of persons interested in the subject of the lectures. They are not specially popular. The courses of instruction extend over two years.

3. The Collège de France is similarly constituted. The professors may lecture on what subjects they please. They are also nominated by the Minister, and each is obliged to deliver 40 lectures a year.

4. The École des Langues Orientales Vivantes and the École des Chartres have a somewhat similar function.

5. The école Polytechnique is attended by students of the engineers, and by officers of artillery. Entry is gained by competition, as at Woolwich and Greenwich. The course of study lasts two years.

6. The École Spéciale Militaire de St. Cyr is designed for officers of infantry and cavalry. These two schools are under the Minister of War.

7. The École Centrale des Arts et Manufactures is a private school for civil engineers.

8. The Conservatoire des Arts et Métiers is under the Minister of Commerce. The professors, whose duty it is to deliver 30 lectures a year, are nominated by the Minister from a double list provided by the professors at the Conservatoire

on the one hand, and by the Académie des Sciences (a body analogous to our Royal Society) on the other. The lectures are free, and are intended specially for the labouring classes.

9. The École Municipale de Chimie et Physique is the property of the Municipal Council of Paris, which defrays its expenses. It is intended specially for the inhabitants of Paris. The students pass three years in study, and receive 50*fr.* (£2) a month.

It is thus seen that there are numerous institutions in Paris for higher or for special education which have no connexion with the University of France, except in so far as some of them are under the control of the Minister of Public Instruction. It is necessary for admission to some of these schools that the student should present his diploma of *bachelier es lettres*—i.e., his leaving certificate from school. But in most of them the lectures are perfectly open and free; any one may attend any lecture, and is subject to no test whatever during the course.

It will convey some idea of the size of the University at Paris—i.e., the Faculties of the University of France which exist in the metropolis, if we give the number of teachers in each Faculty.

In the Faculty of Protestant Theology there are five "titular" professors, one *adjoint*, three *chargés de cours*, and two *maîtres de conférences*.

In the Faculty of Law there are 22 "titular" professors, two *adjoints*, and eight *agrégés*.

In the Faculty of Medicine the number is much larger. There are 33 "titular" professors, 35 *agrégés*, and six *chefs de travaux pratiques*.

In the Faculty of Science there are 21 "titular" professors, three *adjoints*, one *chargé de cours*, and 11 *maîtres de conférences*. In the Faculty of Literature there are 18 "titular" professors, three *adjoints*, 12 *chargés de cours*, and 12 *maîtres de conférences*; and, lastly, the School of Pharmacy possesses 11 professors, seven *agrégés*, and three *chefs de travaux pratiques*. In all, the University possesses 99 full professors, nine *professeurs adjoints*, and 100 teachers of inferior rank, in all 200 persons. From an approximate estimate, about 440 courses of lectures and tutorial classes appear to be held annually in the University, besides numerous others in the schools unconnected with the University.

(To be continued.)

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UNIVERSITIES ABROAD.

(Continued from *The Times* of June 8.)

The other representative Universities of which it is proposed to give a sketch here have been selected as types, giving a fair idea of the systems pursued in the countries to which they belong. More variety in government and custom is to be found among the Universities in Germany, for example, than in the French Academies, because each University is practically self-governing, and to some extent has followed special lines of development. It would be beyond our scope to give any approach to a detailed account of even a small number of the leading Universities; hence we have selected those of Leipsic, St. Petersburg, Geneva, Rome, and Christiania as examples. The functions of these Universities shall be considered in the same order as before, allowance being made for the great difference between their organization and that of the University of France.

1. The Government of the Universities.—Except at Rome, Leipsic, and Christiania, the Senate consists of all the professors of the University ordinary (corresponding to the French *professeurs titulaires*) and extra-ordinary. At Leipsic the Senate consists of Rector, Pro-Rector, the four Deans, and 12 representatives, six from the Faculty of Philosophy, and two from each of the other three Faculties. In Christiania the Senate is replaced by the "Collegium," a body consisting of seven persons, namely, the Deans of the five Faculties, and one representative chosen by the professors of the Faculty of Philosophy, and one from the Faculty of Science. These members hold office for two years, and retire in rotation but are eligible for re-election for other two years service. They elect a chairman from among their number; and their meetings are attended by a secretary appointed by the Crown, and, if the Crown desires, by a "Questor," also a nominee of the Crown. These official representatives do not draw payment from the funds of the University, but are officers of State. This body is somewhat analogous to the "University Court" of the Scottish Universities.

In Rome, the "Consiglio Academico" consists of the Rector, the past Rector, and the Deans of Faculties; the Deans who have just retired from office, and the Director of the School of Pharmacy.

The Senates or Councils at Christiania and Rome constitute the highest courts of their respective Universities; they are subject only to the Crown, the Conseil d'Etat in Switzerland, or to their representatives, the Ministers of Education. They transact all ordinary business, and have entire charge of the monetary affairs. In St. Petersburg, while the Senate, consisting of the whole body of professors, is responsible for all academic matters, the fiscal and administrative government is in the hands of the Rector and the Deans of Faculties.

It is expressly enacted in the statutes of the Universities of Rome and of Christiania that their respective governing bodies shall present an annual report on academic and fiscal matters to the Minister in Rome (through the Rector), or to the King in Norway.

It might be imagined that meetings of so large a body as the Senate, consisting of all professors, would be unwieldy and tend to hinder rather than promote business. But the Senate meets but seldom, and most of the business is transacted by the Faculties, and much by private arrangement between the members. With a small executive body, as in Rome and Christiania, such a difficulty would not likely be felt.

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We see from these examples that the foreign Universities are self-governed. It is believed, and justly believed, that after careful selection of professors by capable judges, education may safely be left in their hands. We shall consider later how such elections are made.

The Rector holds the highest office in all these Universities. He is chosen by the ordinary professors from among their number; he must be a professor in active work, except at Rome, where he may be an *emeritus* professor—that is, one who has retired, having fulfilled his professional duties with honour. At St. Petersburg and at Leipzig the extra-ordinary professors have also a voice in the election of a Rector, but they cannot hold office as such. At Geneva a Vice-Rector and a secretary are also elected, who hold office for two years, and are not eligible for re-election. Their names must be submitted for approval to the Conseil d'Etat. At Leipzig the Rector of the preceding term holds office as Pro-Rector; and the secretary is a Government official.

The duties of the Rector are—to represent the University on all public occasions, to confer degrees and diplomas, to act as intermediary between the University and the Government, to maintain discipline, and to be responsible for the museums and libraries. In Christiania the chairman of the Collegium, who is the equivalent of the Rector, is excused from his regular duties, should he so desire, during his term of office. Presumably there is a tacit understanding to this effect in the other Universities, although nothing bearing on the matter appears in their regulations.

The Faculties elect Deans in all these Universities, who serve for a period of two years (one year in Leipzig), and are not eligible for immediate re-election. Their duties are to preside at Faculty meetings, and, in Rome, to present an annual report to the Rector.

Two other bodies are recognized in Rome—the Assembly of Faculties and the General Assembly of Professors, ordinary and extra-ordinary.

The number of Faculties differs in different Universities. Thus, at Leipzig there are four—viz., Theology, Law, Medicine, and Philosophy, under which Science is comprehended. In other German Universities there are Faculties of both Protestant and Roman Catholic Theology, and the Philosophical and Science Faculties are distinct. In Leipzig the Theological Faculty contains eight full professors; that of Law, nine; that of Medicine, 13; and that of Philosophy, 36; in all 66. In Geneva the numbers are six, eight, and 14 for Theology, Law, and Medicine; the Faculty of Literature (Lettres), 13, and of Science, ten, or 51 in all. There are in addition numerous extra-ordinary professors and *privat-docents*. In Rome there are four Faculties—Science, Medicine, Law, and Literature, the latter sub-divided into Philosophy and Letters. There are also a School of Pharmacy and an Engineering School; the last does not form part of the University, but entry to its courses is only permitted to students who have taken the *licenza* in physical and mathematical science—i.e., a degree equivalent to the French *licence*. In Norway there are five Faculties, Philosophy and Science being separated; and in St. Petersburg five, for, in addition to the German four, there is a Faculty of Oriental Languages.

A professor belongs to only one Faculty, but, if required, he may act as an assessor in some other Faculty in which his courses are necessary. In Germany, and possibly elsewhere, a professor belongs to the Faculty as such, and is not necessarily teacher of any particular subject; he may, if he so choose, deliver lectures on any subject included in his Faculty. Thus a recent instance has been observed where a professor of chemistry delivered lectures on certain physical aspects of music, a subject which belongs to the Faculty of Science, but which is not attached to his or indeed to any chair.

The Staff.—Generally speaking, there are three grades of teachers in all these Universities—the ordinary or full professors; the extra-ordinary professors, who supplement the teaching of the ordinary professor by lectures on special subjects, and whose rank and emoluments are inferior to those of the full professor; and the *privat-docents*, a class of junior teachers who also lecture on special subjects and assist in teaching. The positions of *privat-docent* and extra-ordinary professor may be taken as a kind of apprenticeship for the post of full professor.

Tutorial work is generally undertaken by the *privat-docents*, but it is not so generally recognized as in Oxford. The *privat-docent* must in every case have taken a doctor's degree, except in Switzerland, where a *licencié* is eligible. In Norway every doctor has the right to teach; the word still retains its etymological meaning; the only restriction is that he must announce the subjects of his lectures to the Collegium and obtain their approval. In Switzerland, former

professors, doctors, and *licenciés* may teach, if they obtain the approval of the Senate, but their teaching must not interfere with the courses of the professor. A special dissertation, approved by the Senate, is required if the *privat-docent* desires to lecture in the Faculty of Medicine.

In Germany *privat-docents* must be doctors of at least two years' standing, and must show evidence of continuous scientific work. They are also obliged to pass an oral examination, and to sustain a thesis at a meeting of all the four Faculties. In Italy a commission appoints *privat-docents*, and may test their powers in any way they may think fit. These teachers are not paid fixed salaries, but draw a certain share (in Germany the whole) of the fees paid by their students. It is to their interest to make a reputation for research and for teaching powers, for that is their road to preferment. Should they show capacity, they may be promoted to the rank of extra-ordinary professors; and these again may attain the rank of ordinary professors should their reputation prove sufficient.

The professors are thus carefully selected from the beginning of their careers, and are usually, if not always, men eminent in their branch of knowledge, capable of increasing as well as of communicating knowledge. The method of election varies to some extent in the different countries.

In Geneva the committee of selection consists of the rector, the four deans, a professor of the Faculty in which the vacancy occurs, and three persons, always *emeritus* professors, appointed by the Minister of Public Instruction. The vacancy is officially advertised, and candidates send in applications. The Conseil d'Etat makes the final appointment. The extra-ordinary professors are similarly appointed, but must be re-elected every three years. These professors have no voice in the election of professors.

In Italy the appointment, which is advertised in the official *Gazette*, is made by ten commissioners. Each member of the Faculty in which the vacancy occurs transmits five names to the Minister of Education, who selects the ten who have obtained the greatest number of votes, and the ten persons thus selected form the commission. Candidates for chairs of "official" professors, extra-ordinary professors, or for the rights of *privat-docents* send in testimonials and copies of their publications. The committee, in addition, may apply any test which it may think advisable.

In Norway the Collegium makes the appointment, which must be confirmed by the King. In Germany a committee of the Faculty recommends a name to the Minister of Education for appointment as ordinary or extra-ordinary professor. The ordinary professors are always chosen from the ranks of the extra-ordinary, and the latter from among the *privat-docents*. It is not necessary that they should belong to the University to

which they are promoted; indeed it is common for the professor to be chosen from among the extra-ordinary professors of another University. In St. Petersburg, the German system is followed, but the Tsar exercises direct control. There is no candidature either in Germany or Russia; the person selected is often not informed that he is thought of until an official notice arrives; yet, when it is agreed on to call a professor from another University, it is common to ascertain whether he would accept the post if asked.

In all these countries the sole claim to promotion consists in distinction in Science or Literature, and the decision really rests with the Faculty, for it is extremely rare for the Minister to revoke its verdict.

The duties of the professors are very simple. It is understood that they are to advance knowledge by all means in their power; they are selected with a view to this, and they are left entirely unfettered, except in Italy, where an annual report, embodying the publications by teachers and students of the Universities, is presented by each to the Minister of Education and published at the public expense.

They are also obliged to deliver an official course of lectures during the whole of the academical year, and on condition of the fulfilment of this duty they receive their stipends. The stipend varies in different countries and in different Universities in the same country. Thus, in Switzerland the official salary of a full professor is £240 a year; but if it is deemed necessary to secure or to retain the services of a specially eminent man the Grand Conseil has the right to increase its amount. Besides this fixed income the professor draws half the fees. The extra-ordinary professors receive £80 per annum for official courses and draw half fees for their lectures; the *privat-docents* receive only half fees. In Italy practically the same system obtains; in Norway no fees are paid for public lectures, but the professors may (and do) hold other classes, the fees of which they receive in full. In Germany all the fees go to the professor, whether paid for lectures or for laboratory tuition; and in Russia the stipend is augmented by a large share of fees. These plans are obviously better than the French one, where all fees revert to the public exchequer.

The professor is not expected to defray any expenses connected with his department. All apparatus and material for laboratory work, museum specimens, servants' wages, &c., are paid out of the public grant. This sum is sufficiently large to provide material for research, when required.

4. Regulations for Admission of Students.—Those who attend lectures are divided into two classes, termed in Switzerland "students" and "auditors." Only the members of the first class are admitted to graduation. The students are those who present a certificate of "maturity" from the higher schools (gymnasiums in Germany and Russia, lycées in Italy), or who have produced some equivalent testimony satisfactory to the Senate. In Italy the licence of the Technical Institute gives admission to the University; also attendance for two years at the Military College, or at similar institutions. In Norway an entrance examination may be passed in lieu of the exit examination of the schools. As a rule the students are free to attend lectures or not, as they choose; no "roll" is called, but it is rare for the students not to make good use of their opportunities. But in Italy and in Russia attendance at specified courses of lectures is obligatory on every student. In Norway each student on entering the University must select a professor as tutor, from whom he receives advice, if necessary. The professor is, however, not compelled to accept the office of tutor to all the students who may select him. It is easy to see that favourite professors

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might thus become overburdened by calls from too-appreciative students.

Such regulations as these are advantageous both to professors and to students. They prevent waste of time and dissipation of energy in the teachers, inasmuch as the students are usually sufficiently prepared to enter on the subjects which they intend to study; and they prevent a would-be student from wasting his time in trying to acquire knowledge and learning methods for which he is, in consequence of defective training, insufficiently prepared. In default of such exit examinations in England owing to the heterogeneous and unorganized nature of our secondary education, a matriculation examination of some kind is an absolute necessity; but it might be possible, as in Norway, to receive those who pass creditably from the secondary schools, as soon as their organization is perfected. In Germany auditors are sometimes exceptionally admitted to the degree examinations; but special excellence is required of them in the thesis which they present.

The auditors are other persons, who must be at least 18 years of age. They may be examined, if they choose, but their examinations do not lead to a degree, except under the special circumstances mentioned above.

Residence in halls or colleges attached to the University is unknown abroad, except in the case of certain students of theology, who obtain special help. The student is his own master. He is regarded as a man, able to look after his own interests, and to behave in a reasonable way; the lack of restriction is regarded as part of the necessary training, which University life brings to him. In Germany, at any rate, the result of this freedom is almost wholly good; although there are black sheep, as, indeed, there are in the wider world of "Phyllis," yet the absence of control develops character and fits young men for their subsequent life in a way which no collegiate residence can.

5. Regulations for Degrees.—Here we meet with differences. While the Latin countries approximate more closely to the French system, Russia, Germany, and Norway follow nearly the same plan. It is therefore necessary to consider the degrees in some detail. (a) Geneva.—Candidates for the *Baccalauriat-ès-lettres* may be lads from the "gymnasias" or students of the University. That is, it is not necessary to pass the examination directly on leaving school; a year, or even two, may elapse. An oral examination in Greek, Latin, French literature and history, logic, elements of natural science and elementary mathematics, and German is imposed. Should the candidate satisfy the examiners he is then examined in writing on Latin and Greek composition, and he must write essays in Latin, French, and German. For the corresponding degree of bachelor of science, the candidate must show a certificate to vouch for his having worked for two semesters, or half-years, at mathematics, or that he has attended a laboratory of physics, chemistry, botany or zoology to the satisfaction of the teacher. The candidate may be examined in a portion of his subject after one year, and may take up the remainder in a second. To enter medical classes he must present one of these diplomas.

For the *Licence-ès-lettres* the candidate must show that he possesses the former degree, and that he has attended the University for not less than four semesters. These admit him to the first examination. Should he pass, he is admitted to the second. There is no *Licence-ès-sciences*; but a degree of *Licence-ès-sciences Sociales* may be taken in political economy and allied subjects. For the *Licence en droit* five examinations must be passed, requiring at least six semesters of regular study of law; the same regulations hold for the degree of Bachelor of Theology. That of

Bachelor of Medicine requires work in a chemical laboratory for at least one semester, with a complete course of anatomy, and histology, physics, botany, zoology, and physiology. The degree does not correspond to our M.B. degree, which demands far more technical and professional knowledge; but it insures to the medical man a liberal scientific education. Besides these, the diploma of chemist is granted to Bachelors of Science who pass a practical and an oral examination in physics and chemistry.

Similar regulations are in force at Rome. The courses at the "gymnasium" last eight years, of which five are spent in the gymnasium proper and three in the lycée. To secure admission to the lycée an examination is passed at the end of the five years. After three years in the lycée, a second examination gives the right to enter the University. There was formerly a matriculation examination, giving entrance to the University, but 15 years ago this examination was abolished. Pharmacists alone are allowed to enter the University after two years in the lycée. The University course lasts four years. After two years the student is examined for the licence; should he pass, he attends for other two years, when the degree of Doctor is taken. The licence gives the right to enter the engineering schools, and to be examined for the doctorate. For this a thesis is required; but it is generally a mere form, where the candidate recites a lesson previously learned by heart before the commission, which consists of seven ordinary professors of the Faculty, the president, and four members selected as already described. Should the lecturer in the subject professed be an extraordinary professor, or even a *privat-docent*, he always forms one of the commission.

The complaint both in Switzerland and Italy, as in France, is that there are too many examinations. The candidates are led to look at them as the chief object of work rather than at the promotion of his subject. In Germany, Norway, and Russia the case is different. In Germany the custom varies with the University, but there is only one degree, that of Doctor. In Leipzig, for example, a dissertation is presented; if it is accepted, an oral examination in three subjects in the same Faculty follows, the subjects being selected by the candidate. The whole Faculty is assembled, and the examination lasts for the best part of two hours. In other Universities, after the dissertation has been accepted, the candidates are submitted to a written examination in at least two subjects, and an oral examination in three. The questions are of such a nature as to demand a short essay, and may be put in any portion of the subjects taken. As a rule the candidates study in the University in which they graduate; if they do not, they come with special testimonials from their last University, and their dissertations are examined more minutely than if they had been executed under the eye of the professors who examine. Both ordinary and extra-ordinary professors form part of the commission appointed by the Faculty.

There are no "honours degrees." It is possible for the University to grant a degree *honoris causa*; these, however, are bestowed on eminent men alone, and are honorary degrees. It is true that the ordinary diploma bears on it the phrase *Magna cum laude* or *Summa cum laude*, but the candidates are not "placed."

In Norway also there is only one degree. For this a dissertation is required, together with a disputation, and three "best lectures," for the word "doctor" still retains there its original meaning of "teacher;" but in certain cases a written examination may be substituted for such lectures.

In Russia the two degrees are "Magister" and "Doctor." A year after he has obtained his first diploma—i.e., two years after commencing his studies, the candidate appears before

the whole Faculty; he professes and must be examined in one complete subject, and in two subsidiary subjects. The examination goes on for two, or even three, meetings of the Faculty. If he satisfy the examiners, he then presents a thesis, and if this obtains the approval of a committee of the Faculty, he has to defend it in a public meeting of the Faculty, at which two members of the Faculty, selected for the purpose, attack it. A year after the degree of "Magister" has been taken a second thesis is presented, and, if approved, it is also publicly defended at an open meeting of the Faculty, where any one of the public may state objections. Of course, the degree of Doctor is taken in only one subject.

Women are admitted to classes and degrees in Norway, Switzerland, and Italy, but not in France, Germany, or Russia.

Such, then, are the more important features of certain typical Universities of the Continent. Without much fuller treatment, it is obviously impossible to cover the subject, but at a time when University education in London is being discussed, it may be desirable to note the work and organization of foreign Universities.

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PENSIONS OF CIVIL SERVANTS.—The Select Committee of the House of Commons, presided over by Sir John Gorst, to which the Superannuation Acts Amendment Bill has been referred, met yesterday. Mr. Mowatt, Assistant Secretary to the Treasury, who was the first witness, explained that the object of the Bill was to provide for the case of Civil servants who had served in more than one capacity, but who were not at present entitled to a pension in respect of both periods of service. The statutes which regulated the rates of pay of officers in the different services made the pension conditional on a certain length of service, or on the officer's being compelled to retire by infirmity; but an officer who was transferred before his time had expired lost his claim to the first pension. The reason why the question was important at the present moment was that an Order in Council of 1890 made compulsory the retirement of all Civil servants at the age of 65, and this had caused a large number of officers to draw attention to their position in regard to retiring pensions. Under the Bill as it was drawn, a servant would be enabled to retire when he reached the age of 60, and retirement would be compulsory at the age of 65, or he could retire if he were medically certified to be unfit to perform the duties of his office. Mr. Waterfield, secretary to the Finance Department of the India Office, said that officers were sometimes transferred from the Indian service to the Imperial service, and from the colonial service also; and it became necessary to provide what pension should be given in respect of the services which such officers had already rendered. The Government of India in the case of such officers agreed to grant from the revenues a pension calculated on the average emoluments drawn by the officer during the last five years of his service under the Indian Government. After conferring for some time in private the committee decided to order the Bill as amended to be reported to the House for third reading.

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LONDON, WEDNESDAY, AUGUST 3, 1892.

The Judicial Committee of the Privy Council has dismissed the appeal in "READ v. the BISHOP OF LINCOLN." On all points the ARCHBISHOP OF CANTERBURY'S judgment, delivered in November, 1890, is affirmed, and on all points the Church Association fails in its attempt to narrow the discretion and toleration as to ritual which the ARCHBISHOP sanctioned. No one can miss the significance of what has been done, and least of all those who prosecuted the appeal. Here, it is to be hoped, though not with complete confidence, closes, for all practical purposes, a long process of litigation, which has not been to edification; and the last step amounts to a relaxing of the bonds as to ritual imposed by a series of decisions in which the Church Association and its friends were almost uniformly successful. In theory perhaps the Privy Council might again consider, in the light of new evidence, the questions determined yesterday, even as it has reviewed matters supposed to be settled in "MARTIN v. MACKNOCHIE," "HEBBERT v. PURCHAS," "RIDSDALE v. CLIFTON," and other well-known cases. The time has come for finality and a truce, if such are possible in regard to deep-seated differences. In every line of the decision which we report to-day may be traced a desire to bring about peace; and perhaps, in the praiseworthy anxiety to put an end to strife, the substance of points in dispute has been more than once slurred over.

The case has been so long in progress that it may be well to recall its origin. The acts complained of took place as far back as December, 1887, in Lincoln Cathedral and the parish church of St. Peter, at Lincoln. But several preliminary points had to be settled before the real questions in dispute were adjudicated upon. First, it was said that the ARCHBISHOP had no jurisdiction to cite before him a Bishop to answer articles averring that he had broken the ecclesiastical law; and the ARCHBISHOP, being himself of that opinion, refused to issue a citation. The Privy Council decided in August, 1888, that he was wrong; and thereupon process issued. The BISHOP appeared under protest. The question of jurisdiction was again argued before the ARCHBISHOP, who decided in May, 1889, on a review of the authorities, that he, as metropolitan, sitting with assessors, had jurisdiction over a Bishop of his province. The next point taken was that the word "minister" in the rubric to the Communion Service did not include a Bishop; and again the ARCHBISHOP overruled the objection and decided that a Bishop was not above law. At last, in November, 1890, the Court gave an elaborate decision on the merits of the case, finding the charges in part proved, but in the main unfounded. It held that making the sign of the cross during the Absolution and Benediction and the mixing of the cup during the Communion Service were unlawful practices. But as to the bulk of the charges—permitting lighted candles not required for the purpose of giving light to be on the Communion table, the use of a cup containing wine and water mixed beforehand, standing during the Communion Service on the west instead of the north side of the table, permitting the "Agnus Dei" to be sung immediately after the Prayer of Consecra-

tion, pouring water and wine into a chalice, and drinking the water and wine as part of the service—the petitioner failed. To the same conclusion came the Judicial Committee; and, agreeing with the ARCHBISHOP, they dissent from their own previous decisions as to some of these points. It was noted as a curious and unprecedented circumstance that the ARCHBISHOP, though finding certain charges proved against Dr. KING, did not by monition or otherwise enjoin him to abstain from the illegal practices. There was a judgment, but no sentence, even the mildest known to ecclesiastical law. Here, too, say the Privy Council, he did right. If satisfied that there would be submission—and it is but fair to the BISHOP OF LINCOLN to say that he has desisted from the practices condemned—the ARCHBISHOP need not issue a monition. The great battle was over the contravention of the rubric directing the priest to stand at "the north side of the table." The direction is vague, and it is made more obscure by the fact that the position of the Communion table was in early days changed, the table being sometimes placed crossways, sometimes lengthways, what had been "north" becoming west, and vice versa. When the old altars were replaced by movable tables, which were in fact moved, there came confusion and diversity of practice. Whether the ARCHBISHOP or the Privy Council are entirely successful in dealing with this puzzling question may be doubted; and the latter are careful to say that they merely determine that "it is not an ecclesiastical offence to stand at the northern part of the side which faces eastward." Next in order of importance comes the charge of violating the rubrics by using during the Communion Service lighted candles on the table as part of the ceremony. On this point the ARCHBISHOP accumulated a mass of evidence, good and indifferent, gleaned from writers, paintings, and engravings, to show that the practice complained of was legal when and after the Prayer-book was composed. The Privy Council do not decide the question which he elaborately discussed. They lay stress, almost to a fantastic degree upon the fact of there being no evidence that "the BISHOP was a party to, or a participant in, the original lighting and placing the candles where they were placed," or was responsible for the acts of the incumbent. In any other class of cases than an ecclesiastical appeal, the Judicial Committee would put aside such reasoning as trifling and sophistical. With respect to the charge of illegality founded on the BISHOP'S sanctioning the singing by the choir of the "Agnus Dei," the Privy Council hold with ARCHBISHOP BENSON that hymns have in all ages of the Church been sung during the service, and that there is no good reason why the particular hymn objected to should be forbidden. "If hymns and anthems are lawful at this time ('during the reception of the elements') it cannot be said that the 'Agnus Dei' is otherwise than appropriate."

It would be easy to put one's finger on defects in this judgment, which has the weakness incident to all compromises respecting opinions radically diverse. There is a sense of unreality in the effort to treat as neutral or colourless acts which we all know to be, in the view of a party in the

Church, technical symbols and unequivocal doctrinal signs. The emphasis given to little points in order to escape deciding as to momentous matters is open to criticism. We prefer to turn from these defects, and to view the decision as a legal victory for toleration and one which may work for peace. It is high time to get out of a *nisi prius* region and away from the controversies over minutiae in which zealots take infinite delight. Neither the Church Association nor the English Church Union is the Church of England, and her best interests are not served by a continuance of the disputes which these bodies carry on with endless ingenuity and zeal. What harm can come of diversity kept within the limits which the Privy Council permits? Would any true friend of the Church carry out inexorably in every parish in the land some of the decisions which are in effect modified by the judgment which we print to-day? It is not satisfactory to look back on the past history of the controversies as to ritual. How a final decision as to important points of ritual has been obtained; how many perplexing and contradictory rulings even on the part of the highest tribunal there have been; and how much evil has been done by the long struggle between the two opposing parties, are matters upon which we do not care to dwell. Peace is the supreme interest; and so think those who penned this judgment. Forgetting what is past and irretrievable, we look to the future, and are not without hope that the decision of the Privy Council may prove the beginning of a much-needed truce, if only Dr. KING'S friends do not abuse their victory, and forget that disregard of the opinions of the majority in the Church might bring about differences and divisions worse even than those which the Privy Council has tried to settle.

LAW REPORT, Aug. 2.

JUDICIAL COMMITTEE OF THE PRIVY COUNCIL.

(Present—The LORD CHANCELLOR, LORD HOBHOUSE, LORD ESHER (Master of the Rolls), LORD HERSHELL, LORD HANNEN, SIR RICHARD COUCH, and LORD SHAND.)

READ AND OTHERS V. THE BISHOP OF LINCOLN.

This was an appeal from a judgment of the Court of the Archbishop of Canterbury in a suit instituted against the Lord Bishop of Lincoln by certain lay members of the Church of England resident in his lordship's diocese, alleging divers offences, as regards ritual, against the laws ecclesiastical.

Sir Horace Davey, Q.C., Dr. Tristram, Q.C., and Mr. Danckwerts were counsel for the appellants; there was no appearance, either in person or by counsel, on the part of the Bishop of Lincoln.

The arguments for the appellants were heard some time since before their Lordships, with whom the Bishop of Chichester, the Bishop of St. David's, and the Bishop of Lichfield (now Archbishop of York) sat as ecclesiastical assessors. At the close of the arguments their Lordships reserved their judgment, and to-day it was delivered by the Lord Chancellor. The matter excited great public interest, and the Court was crowded.

The LORD CHANCELLOR read the following judgment of the Judicial Committee:—Before dealing with any of the specific charges which are the subject of the appeal, their Lordships think it right to notice an objection raised by counsel as to the legitimacy of some of the considerations by which the Archbishop

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was influenced in arriving at his conclusions. It has been urged that upon such subjects as the practice of the Primitive Church, the ritual of the Eastern and Western Churches, the position of the Lord's table, the position of the celebrant at the table, and like questions, which are *ex hypothesi* beyond the reach of living memory, the Archbishop has consulted ancient authors, historical and theological works, pictures, engravings, and a variety of documents, of which undoubtedly any careful and competent historian would avail himself, but which it is argued cannot legitimately be made use of in a Court of Justice, and upon which it is said no Judge is justified in placing any reliance in forming his judgment. Where the objection is of so general a character it is impossible to do more than apply to it a general treatment. The first observation that arises is that if our law were to exclude all such historical investigation as is pointed to by the objection, and questions of ritual and ecclesiastical practice could only be investigated by the light of the words of an Act of Parliament some centuries old, and by the testimony of living witnesses, it would disclose a very unreasonable and unsatisfactory state of the law. Who can doubt that contemporaneous usage would be of incalculable value in forming a judgment on such subjects as are indicated above? And if no historical investigation can be permitted as to what was the contemporaneous usage, one source of light upon doubtful questions would be excluded. The novelty of the objection urged before this Board is not a conclusive consideration, since the fact that an objection has not previously been taken is by no means conclusive against its validity when actually taken; but one cannot fail to be struck by the absence of any such objection in, e.g., "Ridsdale v. Clifton," where, not by counsel only, but in the judgment ultimately pronounced, such authorities as Hooker, Baxter's "Life and Times," Collier's "Ecclesiastical History," Dr. Thomas Bennet's "Paraphrase," Cosin's "Works," and the like were quoted and relied upon; and this not upon questions of doctrine or opinion, but as leading to inferences of fact of what was usual at the time of the writers referred to. But their Lordships are of opinion that the objection is founded upon an erroneous view of the law. Where it is important to ascertain ancient facts of a public nature, the law does permit historical works to be referred to. The House of Lords, upon the impeachment of Warren Hastings, having first determined that it would only proceed upon judicial evidence, such as would be receivable in a Court of law, received in evidence (being advised, it will be remembered, by the Judges) Cantemir's "History of the Turkish Empire." In the case of St. Katharine's Hospital, Lord Hale admitted Speed's "Chronicles" to be evidence of a particular point of history in Edward III. time, and Chief Justice Pemberton received the same evidence to prove the death of Isabel, Queen Dowager of Edward II., and said he knew not what better proof could be given. Without considering further how far an Ecclesiastical Judge has a right to act upon his own historical learning, when it becomes important to ascertain what was the ecclesiastical practice, or what were the views entertained by eminent theologians, in remote times, it is enough to say here, dealing with the objection generally, that it is impossible to contend that if in other respects the Archbishop's judgment was well founded, it could be invalidated by his having called to his aid for this purpose his own historical researches. Nor does it make the objection better that instead of pronouncing *ex cathedra* what in his opinion was the history of such and such a practice, the Archbishop has disclosed in his judgment the sources from which he derived his views. With respect to some of the matters which have been the subject of debate in this appeal, it has been strongly argued that they have been conclusively determined by this Board, and that if the facts are found to be the same no further argument is permissible. That question was raised in the case of "Ridsdale v. Clifton." Some of the points in issue in that case had been already the subject of decision by this Committee in the case of "Hebbert v. Purchas." In answer to the argument that they had been conclusively settled and were no longer open to discussion, Lord Cairns, in delivering the judgment of the Committee, said: "(2 L.R., Prob. 305)—'Their Lordships have had to consider, in the first place, how far, in a case such as the present, a previous decision of this tribunal between other parties, and an order of the Sovereign in Council founded thereon, should be held to be conclusive in all similar cases subsequently coming before them.' In the case of decisions of final Courts of Appeal on questions of law affecting civil rights, especially rights of property, there are strong reasons for holding the decisions, as a general rule, to be final as to third parties. . . . Even as

to such decisions it would perhaps be difficult to say that they were, as to third parties, under all circumstances and in all cases absolutely final, but they certainly ought not to be reopened without the very greatest hesitation. Their Lordships are fully sensible of the importance of establishing and maintaining, as far as possible, a clear and unvarying interpretation of rules, the stringency and effect of which ought to be easily ascertained and understood by every clerk before his admission to holy orders. On the other hand, there are not, in cases of this description, any rights to the possession of property which can be supposed to have arisen by the course of previous decisions; and in proceedings which may come to assume a penal form, a tribunal, even of last resort, ought to be slow to exclude any fresh light which may be brought to bear upon the subject.' It was argued for the appellants that the doctrine thus laid down in "Ridsdale v. Clifton" was only applicable where there was some 'fresh light,' and that by this was meant some fact which had not been under the consideration of the tribunal on the previous occasion. But an examination of the arguments and judgment shows that this was not the meaning of the Committee. They entered upon an elaborate and independent examination of the law bearing upon the legality of acts already pronounced illegal, and it was expressly stated, as their Lordships' conclusion, 'that although very great weight ought to be given to the decision in "Hebbert v. Purchas," yet they ought in the present case to hold themselves at liberty to examine the reasons upon which that decision was arrived at, and, if they should feel themselves forced to dissent from those reasons, to decide upon their own view of the law.' In the result their Lordships dissented upon one point from the reasoning of the previous Committee, and came to the conclusion that an act was lawful which had been previously pronounced illegal. In the present case their Lordships cannot but adopt the view expressed in "Ridsdale v. Clifton" as to the effect of previous decisions. Whilst fully sensible of the weight to be attached to such decisions, their Lordships are at the same time bound to examine the reasons upon which the decisions rest, and to give effect to their own view of the law. The first matter dealt with by the Archbishop that is contained in the 4th Article. That Article, when read with the 13th and 14th Articles, seems to contain, as the Archbishop points out, two heads of charge. First, the mixing of the cup during the Communion service; and, second, the consecration and administration of the mixed cup. With the former of these their Lordships need not concern themselves. The finding of the Archbishop on this part of the charge was adverse to the respondent, and no question as to the legality of this act arises upon this appeal. As regards the latter head of charge, however, the Archbishop declared that the act of consecrating wine which had been mixed with water before the service, and of administering the same when so mixed to the communicants, would not be offences against the ecclesiastical law of England. The appellants impeach this declaration, and ask their Lordships to pronounce the use of wine mixed with water in the administration of the Lord's Supper to be an ecclesiastical offence. The ceremonial mixing of the cup as part of the service is no longer in question; all that their Lordships have to consider is whether the mere supply of wine which has some water in it, and the consecration and administration thereof in the Holy Communion, is a violation of the ecclesiastical law. It is argued that the Prayer-book directs that "wine" is to be used for the purpose of the Sacrament, and that the rubric is not complied with if any water has been added to the wine which is so used. The argument must necessarily go the length of asserting that what is in that case consecrated and administered is not "wine." It is difficult to contend that what is generally called and known as "wine" loses that character by the admixture of a little water. Wines differ in alcoholic strength, and their Lordships do not believe that any one would hesitate to apply the word "wine" to such a mixture, or that it would be an unnatural use of language to do so. The responsive plea states that "a little water" was added, and it is not suggested that there was such an admixture as to cause the wine to lose its distinctive character as wine. It is to be observed that the word "wine" is applied in King Edward's First Prayer-book to the mixture of wine and water which that Prayer-book enjoined, and, in the absence of any liturgical direction as to the alcoholic strength of the wine, their Lordships cannot think that the mere use of the word "wine" in the rubric by implication prohibited the presence of water in that which is consecrated and administered. And their Lordships, after carefully weighing what was said in "Hebbert v. Purchas," are unable to see anything in the references to "wine" in any part of the rubrics inconsistent with this view. Lord Hatherley, in delivering the judgment of this Committee in "Hebbert v.

Purchas," (3 L.R., P.C., 651), said that since it had been decided that the act of mingling wine with water in the service with a view to its administration is one of the additional ceremonies excluded by implication by the service for the Holy Communion, the question was whether the doing of the act before the service, and in the vestry or elsewhere, could so alter the symbolical character of the act that the cup might be brought in, and consecrated and administered to the people, without constituting an innovation or additional ceremonial act beyond what is ordered in the service; and, after stating that whatever the admixture of water symbolized, it could scarcely be said that the reception of the mingled chalice had no share in this symbolism, but only the act of mingling, concluded that if the mingling and administering in the service water and wine was an additional ceremony, and so unlawful, it did not become lawful by removing from the service the act of mingling, but keeping the mingled cup itself and administering it. Their Lordships find themselves unable to concur in this reasoning. The mixing of water with the wine in and as part of the service is no doubt a ceremonial act, and there can be as little doubt that, if so, it is an additional ceremony, quite apart from any particular idea as to its symbolical character which may induce the act. But where the chalice is placed mixed upon the holy table, no act is done during the service, in addition to those prescribed; the acts of consecration and administration are precisely the same as if the chalice were unmixed, and the recipients may even well be ignorant whether the chalice be mixed or not. It seems to their Lordships that there is not in such a case any additional ceremony, that no ceremonial act is added to the service. The "removing from the service the act of mingling," which the judgment in "Hebbert v. Purchas" treated as of no moment, is the removal of the very thing which as an added ceremony was unlawful. If wine, with a small admixture of water, be "wine" within the meaning of the rubric, and if the use of it does not involve an added ceremony, their Lordships cannot but agree with the Archbishop that it does not become unlawful on account of any symbolism which has been attached to the use of the mixed chalice. The practice cannot be said to have received any general agreed or definite symbolical meaning at any period of the Church's history. And, indeed, the use of the mixed chalice, because Christ himself is believed to have administered wine mingled with water, cannot with propriety be said to be a symbolical use of it, and yet this is the ground on which many have both advocated and defended the practice. The use of the mixed chalice in primitive times is not denied. In mixing water with the Sacramental wine the early Christians in all probability merely followed the practice which prevailed at that period, when, according to the ordinary usage, wine was not taken without some admixture of water, and when in ordinary parlance the word *inos* was understood to include wine and water. Plutarch, writing at a period not very far removed from the time of the institution of the Lord's Supper, uses the phrase—*τὸ πρῶτον αὐτοὶ ἐβραβεύον μετὶ οἴνου ὄνος κελύκος*. It is to be observed, however, that in the narrative of each of the Gospel accounts of the institution itself, the word "wine" does not occur, but *cup* (*σφραγίς*), as also in St. Paul's reference to it in the First Epistle to the Corinthians. There appear to have been three stages in the practice of the Church—at one time simple mixture of the wine with water; then there appears to have been instituted an additional ceremony in which there was a ceremonial admixture but separate from the service; and then in later times an incorporation of the ceremonial admixture into the administration itself. It was to the latter, which was in use in their time, that the attention of our Reformers was directed, and which they certainly intended to exclude. Their Lordships consider that the Archbishop accurately states the law when he says that the mixing of the wine in, and as part of the service, is against the law of the Church, but that the use of a cup mixed beforehand does not constitute an ecclesiastical offence. The charge in the 8th and 13th Articles seems to resolve itself into a question of fact. It is not denied, but impliedly admitted by the Bishop, that anything like the ceremony of ablation would be illegal. The time at which the act was done is by the appellants themselves stated to have been after the Benediction, when, according to all ordinary understanding, as well as upon the true construction of the rubric, the service is at an end. The act itself is described by the Bishop as having been done with the intention of complying with the direction of the rubric, reverently to consume what remained of the consecrated elements. Ever if their Lordships should be of opinion that in the honest desire to comply with the direction in question the Bishop exhibited excessive care and scruple in the mode in which he performed the prescribed duty, that certainly could not be construed to be an

ecclesiastical offence. The drinking of what the witness called to prove the facts describes as the "rings," does not suggest any ceremony, and their Lordships cannot think that what was done was intended to be anything but what it is alleged to have been—namely, a reverent consumption of the remnants of the consecrated elements in accordance with the Book of Common Prayer, or that there is any reason to regard it as an additional and therefore unlawful ceremony. The appeal on this point therefore fails. The 6th Article and the responsive plea taken together establish that it was with the Bishop's sanction that the hymn known as "The Agnus" was sung by the choir. The hymn, which was sung in English, consists of words taken out of the Bible, and, unless there be something to make the singing of that particular hymn at the time alleged in the charge unlawful, the argument must go to the full extent of making all hymns or psalms sung during the service in the English Church an unlawful addition to such service. With respect to this charge, the Archbishop states that it was not contended before him that it is illegal to use a hymn or anthem in all places in the service where its use may not have been ordered, and practically the same concession was made here. It would, indeed, be difficult to maintain, in the face of usage ever since the passing of the Act of Uniformity, that singing a hymn at all during the service was in itself illegal. The careful research of the Archbishop has established, as far as historical evidence can establish anything, that during the 17th and 18th centuries the practice was common and it has undoubtedly continued to our own time. Such universal and unbroken usage is of great force, and it would, in their Lordships' opinion, be impossible now to contend that in itself, and apart from any interference with the due order of the service or anything objectionable in the hymn sung, the practice is illegal. Whether the origin of the usage is the permission given by 2 and 3 Edward VI., c. 1, section 7, "to use openly any psalms or prayer taken out of the Bible, at any due time, not letting or omitting thereby the service or any part thereof mentioned in the said Book," it is immaterial now to inquire. The charge is that the hymn was sung "before the reception of the elements." This is admitted in the responsive plea. But the Archbishop did not understand it as alleging that the celebrant waited till the end of the hymn before he and others received the elements. No evidence was given on the point, and the Archbishop's construction was not questioned before their Lordships. No case of "letting" any part of the service, therefore, was made out against the respondent. With reference to the provision in the statute that the psalms must be used at a "due time," it is noteworthy that the "Hymns and Songs of the Church," by Wither, licensed by James I. and Charles I. in succession, should contain, in connexion with a hymn inserted therein, a statement that, "We have a custom among us, that during the time of administering the Blessed Sacrament of the Lord's Supper, there is some psalm or hymn sung the better to keep the thoughts of the communicants from wandering after vain objects." Considering the ordinary mode in which the Sacrament is administered to each communicant, and the number who may either have received or be waiting to receive the elements, their Lordships cannot differ from the Archbishop that it was a "due time" for singing a hymn. If hymns and anthems are lawful at this point in the service, it cannot be said that the "Agnus Dei" is otherwise than appropriate. Although the words are not in their combination taken out of Scripture, they combine two separate passages of Scripture and are found in more places than one in the Book of Common Prayer. They have direct reference to the great event commemorated in the Sacrament, and they are not likely to be abused to any kind of idolatrous adoration, except by those who would make for themselves other opportunities for it. It is quite true that they were omitted from this part of the service in 1552, but other omissions were made at the same time which it was not suggested could have any doctrinal significance. The ninth charge is founded upon an alleged disobedience to that part of the rubric prefixed to the Communion Service, which is in these words:—"The table, at the Communion time having a fair white linen cloth upon it, shall stand in the body of the church, or in the chancel, where Morning and Evening Prayer are appointed to be said. And the priest, standing at the north side of the table, shall say the Lord's Prayer, with the collect following, the people kneeling." The charge as formulated sufficiently shows what is intended to be charged as illegal, though it is true, as pointed out by the Archbishop, that the particular illegality is not definitely stated. The words at the end of the ninth charge "and not on the north side thereof" sufficiently show what the pleading meant—i.e., that the standing on the west side of the table during the whole of that part of the service which intervenes between its commencement and the ordering of the bread and wine before the Prayer of Con-

secration is illegal, and an offence against the Act of Uniformity. Before discussing the matter in its relation to the express words of the rubric, their Lordships cannot forbear from observing that it is impossible to assign to the directions, in the rubric any meaning, either positively or negatively, which touches matters of doctrine. Whatever the position of the priest may be, it is the same whether there is or is not a celebration of the Lord's Supper, and the rubric, immediately before the Prayer for the Church Militant, shows that what is described as the Communion Service may be used, at least that the part of

it down to the end of that prayer may be used, without the celebration of the Lord's Supper at all. This is also plain from the first rubric at the end of the entire service. The question is, therefore, by the form of the charge, whether the position of the respondent, on the occasion to which the charge relates, constituted an ecclesiastical offence. It is difficult to understand the importance which has been attached by the appellants to the position of the priest during the early part of the Communion Service. It appears to be suggested that the eastward position at the Holy table is significant of the act of the priest being a sacrificial one. The Archbishop has pointed out that, in his opinion, this view is erroneous, but quite apart from this, if there be any such significance in the position of the officiating priest, and if the intention of those who framed the rubrics now in force was to prohibit a position which could be interpreted as indicating a sacrificial act, it is obvious that the prohibition would have been specially aimed at the position during the consecration of the elements. Yet it has been decided by this Committee, and the appellants did not seek to impeach the decision, that the celebrant may at that time stand at the middle of the table facing eastwards. If this be lawful, of what importance can it be to insist that he shall during the two prayers with which the service commences place himself at that part of the table which faces towards the north? And this is all that is now in controversy. The point at issue has been sometimes stated to be whether the eastward position is lawful, but this is scarcely accurate. Even if the contention that the priest must stand at that part of the table which faces northward were well founded, there is nothing to make his saying the Lord's Prayer and the opening collect with his face eastward unlawful; the only question is whether he can lawfully do so when occupying a position near the north corner of the west side of the table. Of what moment is it, or can it ever have been, to insist that he should, during the two prayers with which the service commences, place himself at that part of the table which faces towards the north, if it be lawful to stand at the middle of the table facing eastward during the Prayer of Consecration? The very necessity of occupying the position which it is contended is alone legal during the early part of the service would serve to emphasize the subsequent change of position, and to render the position assumed at the time the elements are consecrated the more significant. In their Lordships' opinion there is no doubt that, at the period when the rubric in question was framed, the table was, at the time of the Holy Communion, placed in almost all parish churches lengthwise in the body of the church or chancel, the smaller sides or ends facing east and west, and the longer sides north and south, when the church stood, as it ordinarily did, east and west. And there can be as little doubt that the rubric was framed with reference to this position of the table. Whilst the table stood in this position and the priest could comply conveniently with all the directions of the rubrics, without assuming a position at any part of the table other than that prescribed at the commencement of the service, there would be no reason for any change of position. When at a later period the Holy table came to be placed what has been termed altarwise, a controversy unquestionably arose as to the manner in which the rubric ought to be complied with. Those who were in favour of the change to the altarwise position insisted that the rubric was complied with if the priests stood at the north end or side of the table. The Puritan party, on the other hand, who objected to the change, insisted that it rendered compliance with the directions of the rubric impossible, inasmuch as the priest could not stand on the north side of the table, neither of the "sides," according to their view, facing the north. This controversy was still being carried on when the Prayer-book now in use came into force, but the rubric prescribing the position of the priest at the commencement of the Communion Service was left unaltered in its terms, and no attempt was made to solve the controversy. Subsequently to this period the position at the north end or side of the table appears to have become the common, though not, perhaps, absolutely the universal, one, there being reason to believe that a position at the northern side of that part of the table which faces eastward was sometimes assumed. When the question came to be discussed before this Board in the case of "Ridsdale v. Clifton,"

Dr. Stephens, the leading counsel who appeared for the promoters of the suit, still argued that the Acts of Uniformity required that at Communion time the Lord's table should stand with its ends east and west, thus providing a side to the north at which the priest is to stand and officiate. It is to be observed that the only question which had to be decided, either in "Hebert v. Purchas" or "Ridsdale v. Clifton" was whether the clergymen against whom these suits were brought had occupied an unlawful position by standing at the middle of the west side of the Communion table whilst saying the Prayer of Consecration. It is true that opinions were expressed as to the position which it was the duty of the clergyman to occupy during the earlier part of the service. But these expressions of opinion were *dicta* not necessary for the decision of either of those cases, in which opposite views were taken as to the legality of the position occupied during the Prayer of Consecration. The question whether it is an ecclesiastical offence to stand whilst saying the two prayers with which the service commences elsewhere than at the north end had not then to be determined, and it must be remembered that the observations in the judgment in "Ridsdale v. Clifton" were, in some measure at least, directed to the argument, to which reference has been made, that the table must during the administration of the Communion stand lengthwise east and west. Their Lordships, in "Ridsdale v. Clifton," expressed the opinion that where the minister is directed to stand at the north side of the table, it is his duty to stand at the side of the table which, supposing the church to be built in the ordinary eastward position, would be next the north, whether that side be a longer or shorter side of the table. It will be observed that, although the only direction in the rubric has reference to a particular point of the compass, their Lordships did not consider that the obligation to stand at the commencement of the Communion Service facing southwards was absolute. They interpreted the rubric with reference to the fact that churches, at the time the rubric was framed, generally stood east and west. It seems equally legitimate to have regard to the usual position of the table as having been then in contemplation, and there can be, as has been pointed out, no doubt that this was lengthwise in the body of the church, the ends facing east and west. It is true that a quadrilateral, whatever its form, is rightly described as having four sides, and the word "side" may without impropriety be applied to each of them. But it is obvious, from the arguments which were common at the time when the table began to be placed in what has been called the altarwise position, that the word "end" was then, as now, more usually employed than the word "side" to describe the shorter sides of the quadrilateral. Their Lordships are of opinion that, even assuming that what would be more commonly spoken of as "ends" may properly be called "sides," yet where a position at the "north side" was enjoined by the rubric, one of the longer sides of the table was in contemplation, and it was also in contemplation that all the acts prescribed which were to be done at the table should be done at that side. When the terms of the rubric are considered in connexion with the circumstances existing at the time it was framed, their Lordships consider that it cannot be regarded as so definitely and unequivocally enjoining that the priest shall, no matter how the table may be placed, stand at that end of the table which faces the north when saying the opening prayers that no other position can be assumed without the commission of an ecclesiastical offence. They cannot think that it renders it obligatory on a clergyman who thinks it desirable during the Prayer of Consecration to stand at the side of the table which now ordinarily faces eastward to stand during the earlier part of the service at a different part of the table. Their Lordships are not to be understood as indicating an opinion that it would be contrary to the law to occupy a position at the north end of the table when saying the opening prayers. All that they determine is that it is not an ecclesiastical offence to stand at the northern part of the side which faces eastwards. In dealing with the charge relating to lighted candles on the Communion Table, it becomes necessary to consider with care the allegations actually made and the proofs in reference to the allegations. The offence is alleged to have taken place in the Church of St. Peter-at-Gowts on December 4, 1887, and the charge in the third article is that the Bishop "when officiating as Bishop and the principal celebrant in the service for the administration of the Holy Communion in the same church used, and permitted to be used, lighted candles on the Communion table, or on a ledge immediately over the said table so constructed as to appear to form part of the said Communion table, during such service as a matter of ceremony, and when such lighted candles were not required for the purpose of giving light." The 13th article alleges "that the use of the lighted candles" is an "unlawful addition and variation from the form and order prescribed. . . . by the said statutes and of

the order of the administration of the Holy Communion. . . . and . . . contrary to the said statutes and to the rubrics. . . . and to the . . . canons." The responsive plea 2 of the Bishop is that "throughout the celebration there were without any objection being raised by him two lighted candles on the Holy table. These lights, whether required for the purpose of giving light or no, are, in his judgment, and he submits, lawful. All that is here admitted is that two candles were, without objection on the part of the Bishop, alight throughout the celebration on the Holy table. And the only fact added by the proof was that they were not required for the purpose of giving light. The allegation that the candles were used as a matter of ceremony is an essential averment in any view of the offence indicated by the charge. It is not charged that there was any act of lighting or carrying lights about, nor was there any evidence of their use as a matter of ceremony, unless it be afforded by the mere fact that they were alight during the Communion service. If the proof corresponded with the allegation in all respects it would be matter for grave consideration how far the Archbishop's elaborate exposition of the history of the question, and in particular the decision of two learned Judges in 1628 and 1629, have afforded new materials for consideration since the decision of this Board in "Martin v. Mackonochie" (L. R., P. C. 2, 365) upon the same subject, but their Lordships are unable to see that the charge against the Bishop raises the same question. The charge against Mr. Mackonochie, who was himself responsible for the arrangement of the service and for the ornaments in his church, was presented under two aspects, and this Board dealt with both:—The ceremonial lighting and burning of the candles when light was not required, and the placing and keeping the candles as unlawful ornaments on the Lord's table. It is important to bear in mind the commentary made in that case upon the utterance of the Council of Trent, *De Missæ Ceremoniis et Ritibus*—"Cerimonia item adhibuit ut mysticas benedictiones, lumina, thymiamata, vestes, alioque multa." In commenting upon this it was said by this Board (L. R., P. C. 2, 387):—"There is a clear and obvious distinction between the presence in the church of things inert and unused, and the active use of the same things as a part of the administration of a sacrament or of a ceremony. Incense, water, a banner, a torch, a candle and candlestick may be part of the furniture or ornaments of a church, but the censuring of persons and things, or, as was said by the Dean of the Arches, the bringing in incense at the beginning or during the celebration, and removing it at the close of the celebration of the Eucharist, the symbolical use of water in baptism, or its ceremonial mixing with the sacramental wine; the waving or carrying the banner; the lighting, cremation, and symbolical use of the torch or candle; these acts give a life and meaning to what is otherwise inexpressive, and the act must be justified, if at all, as part of a ceremonial law." Their Lordships are not able to attach any definite meaning to the phrase that the respondent was officiating as Bishop. If it is sought to be argued that his position as Bishop made any difference in his responsibility from that which would attach to any other clergyman not being the incumbent, their Lordships are not prepared to adopt such a view. The act of lighting candles, or keeping them alight, the placing or maintaining ornaments, are all things for which the incumbent of the church is himself responsible, and their Lordships in the case of "Martin v. Mackonochie" felt themselves compelled to deal with the questions whether there had been a ceremonial use of the lights, and whether unlawful ornaments had been in use. It was on the latter ground mainly that the judgment against the respondent was rested. No such question arises here; the Bishop is not charged, and manifestly could not be, with introducing unlawful ornaments. If he had disapproved of the existence of the lights where they were placed he would have had no power to remove them; and, where no act of lighting, cremation, or actual use is proved, it is impossible to say that the ecclesiastical offence has been established of using a ceremony not retained, and, therefore, prohibited by the Act of Uniformity, unless the mere fact that the Bishop took part in the consecration and administration of the elements, whilst the lights were burning, constituted of itself the use by him of such a ceremony. No act was done by the Bishop which conveyed, or was calculated to convey, to the minds of those present any different idea from that which would have been conveyed had the lights been absent. Their Lordships are not prepared to hold that a clergyman who takes any part in the celebration of divine service in a church in which unlawful ornaments are present necessarily uses them as a matter of ceremony. Doubtless acts done by a person primarily responsible may be so aided and assisted by others that the persons thus aiding and assisting become parties to the transaction and as guilty as the principal, but no such case has been, in their Lordships' opinion, established here. There is no allegation or

evidence that the Bishop was a party to or a participant in the original lighting and placing the candles where they were placed, and the only alternative open to a clergyman, under the circumstances of this case, whatever his own views, and whatever his rank in the Church, would be to refuse to join in the administration of the Sacrament of the Lord's Supper to the congregation because there was a light burning when no light was necessary. Whatever view might be entertained as to the propriety of such a course being taken, their Lordships are unable to affirm that the not taking such a course makes the Bishop so far responsible for the act of trying to establish the charge and keeping alight the candles as to incur the charge contained in the 3d Article. The Bishop's responsive plea, in which he submits that the existence of the two lighted candles on the table throughout the celebration is lawful, and in which he admits that he made no objection, does not add anything to the case made against him. No authority was cited to show that his not making such objection constitutes an ecclesiastical offence, and their Lordships are of opinion that it does not. Finally, it is necessary to say that their Lordships do not concur in the suggestion made at the bar that upon those parts of the case as regards which an ecclesiastical offence was found to be proved the Archbishop was under a legal obligation to issue a monition. The promoters of a suit have, it is said, a right, where they have succeeded in establishing a breach of the law, to insist upon sentence being pronounced, even if it be only a monition not to repeat the offence. Their Lordships are of opinion that the promoters have no such right. If the Archbishop has satisfied himself that the offence will not be repeated, he is entitled to accept the assurance of future submission, and is not bound to inflict a penalty, and a monition is a penalty. In the result, their Lordships will humbly advise her Majesty that this appeal should be dismissed.

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EXPERIMENTS UPON LIVING ANIMALS.

The recent discussion at the Church Congress, on the subject of "Experiments upon Living Animals," and the correspondence which has followed it have naturally led to some renewal of interest in the whole of the questions involved, and especially in one of them, on which, in the opinion of most people, the decision concerning others should depend. We refer to the question of the actual benefits to the human race, or even to the lower animals themselves, which these experiments have been the means of conferring; and we propose to set forth some of these benefits in a manner calculated to be intelligible to non-medical readers. The task of doing this is not altogether an easy one, mainly on account of two distinct kinds of difficulty. The first of these arises because the general public, to whom any argument in a newspaper must be addressed, are seldom sufficiently acquainted with physiology, that is to say, with the structure and functions of the human body and of its parts, to be able to form a sound opinion of the value or importance of any discovery of which they may be told. If, for example, a speaker at the Church Congress had justified a certain experiment on the ground that it had established the power of some drug to increase or to diminish the tension of the arteries, it is probable that these words would have failed to convey any definite idea to the great majority of those who were present at the discussion. If the same thing were said to a physician, it would be to him the announcement of increased power to control conditions which exert an enormous influence over the progress and the results of disease. The statement would re-

mind him, moreover, that all knowledge of the variations of arterial tension, and of the consequences of these variations, has been the direct outcome of a long series of carefully conducted experiments. The second chief difficulty arises from the fact that a complete or striking result can seldom be claimed as the effect and justification of any single experiment. Important discoveries, as a rule, have been built up in successive stages, in each of which the discoverer has had to make sure of his ground. Each experiment, therefore, in such a case, has been contributory to the ultimate gain; but none can be truly said to have yielded it. Any discovery, moreover, which was announced as the result of a single experiment would require to be closely scrutinized, and to be submitted to the test of further experiment, before it could be generally accepted as a safe guide in medical or surgical practice, and as a definite addition to the sum of human knowledge. Notwithstanding these difficulties, we think it may be possible to rescue a large portion of the subject from the obscurity with which it has been surrounded by the oftentimes random assertions of heated controversialists, and to bring it fairly within the domain of common sense and of common knowledge.

The words "experimentation on living animals" cover a very wide range of procedure; and it may therefore be desirable, in the first place, to attempt to classify experimental work with reference to its nature and objects. Experiments are performed:—

1. As an orderly series, intended to ascertain the functions of organs or assemblages of organs in the human or animal body.
2. As detached proceedings, intended to decide some single question which may arise during the course of an illness, or in the progress of a medico-legal investigation; such a question, for example, as the practicability and applicability of a proposed operation, or the nature of a poison which defies chemical analysis.
3. Either singly or in series, for the purpose of ascertaining the initial and ultimate action of some drug upon the human organism, with the view either of testing its value as a remedial agent, or of guarding, by antidote or otherwise, against its injurious effects.
4. Inoculation and feeding experiments, intended to identify the specific microbe of some disease, and to ascertain whether, and, if so, in what degree, its virulence is capable of being destroyed or mitigated by cultivation or other circumstances.

Besides the experiments which fall under one or other of the foregoing groups, there may be others which it would be difficult to classify; but the groups will serve to include the greater number, and each of them will furnish illustrations of valuable results which could probably have been attained in no other manner.

As a conspicuous example of the first group we may recall to mind the experiments of Dr. William Harvey, by which he discovered the circulation of the blood. There may be thousands of educated people to whom this phrase is a phrase and nothing more; but the work of Harvey bears about the same relation to the subsequent progress of medicine as that of Galileo to the subsequent progress of astronomy. Prior to Harvey nothing was known, nothing could be known, of the functions of the heart, of the functions of the blood, or of the functions of the lungs. The blood was known to exist, and to have some movement, and to issue from a wound; but it was regarded only as a portion of the body, and the arteries, which convey it, after it has been purified in the lungs, to every portion of the organism, were long believed to contain nothing but air. Nothing was known, nothing could be known, of the blood as the great medium of exchange between the atmosphere and the tissues, and as the agent for the supply and renewal of force. Nothing was known, nothing

could be known, even of matters so comparatively simple as the differences between venous and arterial hemorrhages, and of the means by which one or the other may be arrested. This knowledge is now possessed by every one who has obtained a "first aid" certificate in an ambulance class; but in Harvey's time it was not possessed even by the heads of the surgical profession. To quote the Harveian Oration of last year, delivered by Dr. Dickinson:—

In Harvey's time, as in the time of Galen, spirits were active in the human economy. There were three—the natural, the vital, and the animal. We hear of spirits even now, but they are irregular practitioners without any recognized place in our philosophy. Up to Harvey's time spiritual essences, not implying the supernatural, but only aerial or gaseous, played a part which we now attribute to the blood in its liquidity. We can discern a sort of forecast of oxygen obscured in the old phraseology. The vital spirits were brought to perfection in the left ventricle from materials, air in particular, obtained from the lungs. As "the fountain and workshop of the vital spirits," the heart was the origin of vital heat, and of the affections and emotions. From the left ventricle the vital spirits, together with blood, were conveyed by the arteries to the organs and tissues. But not only was the aerial element derived from the lungs, but the arteries also obtained air from the surface of the body generally, and discharged these fuliginous vapours.

To the physician of the present day the ignorance of animal function which prevailed before Harvey, and which his discoveries served in time to dispel, can scarcely be realized by any effort of the imagination; and it would be impossible to conceive of any progress in physiology, or of any progress in medicine, which could have been made prior to the completion of his work. Every portion of that work, from its commencement to its close, was accomplished and established by experiments upon living animals, and could have been accomplished in no other way. The King placed the deer of the Royal parks at Harvey's disposal for this special purpose; and came himself to witness the experiments as soon as the results were sufficiently declared. Even in the present day, a medical student who was required, in the course of an examination, to state the evidence on which the doctrine of the circulation is founded would have no choice but to describe what happens when ligatures are placed on certain vessels in a living animal. He need never have seen the actual experiments, which no longer need repetition; but it would be necessary that he should be thoroughly acquainted with them. Harvey's great work, "Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus," is thus described in the "Dictionary of National Biography":—

There is a dedication to Charles I., in which the King in his kingdom is compared to the heart in the body, and this is followed by a modest address from Dr. Argent, the President, and to the Fellows of the College of Physicians of London. An introduction then states the existing opinions on the structure of the heart and great vessels, on the blood and its movement, for that it moved had of course been observed from the earliest times. Seventeen chapters follow, in which the whole subject is made clear from the beginning, and incontestably demonstrated. He begins by modestly stating how the difficulties of the subject had gradually become clear to him, and by expressing, with a quotation from the *Andria* of Terence, the hope that his discovery might help others to still further knowledge. He then describes the motions of arteries, of the ventricles of the heart and of its auricles, as seen in living animals, and the use of these movements. He shows that the blood, coming into the right auricle from the vena cava and passing then to the right ventricle, is pumped out to the lungs through the pulmonary artery, passes through the parenchyma of the lungs, and comes thence by the pulmonary veins to the left ventricle. This same blood, he shows, is then pumped out to the body. It is carried out by arteries and comes back by veins, performing a complete circulation. He shows that in a live snake, when the great veins are tied some way from the heart, the piece of vein between the ligature and the heart is empty, and further, that blood coming from the heart is checked in an artery by a ligature, so that there is blood between the heart and the ligature, and no blood beyond the ligature. He then shows how the blood comes back to the heart by the veins, and demonstrates their valves. These had before been

described by Hieronymus Fabricius of Aquapendente, but before Harvey no exact explanation of their function had been given. He gives diagrams showing the results of obstructing veins, and that these valves may thus be seen to prevent the flow of blood in the veins in any direction except towards the heart. After a summary of a few lines in the 14th chapter he further illustrates the perpetual circuit of the blood, and points out how morbid materials are carried from the heart all over the body. The last chapter gives a masterly account of the structure of the heart in men and animals, and points out that the right ventricle is thinner than the left, because it has only to send the blood a short way into the lungs, while the left ventricle has to pump it all over the body.

Such, stated in the barest way, was the work which Harvey accomplished for the benefit of all future generations of the human race; work which has been so fruitful that it is scarcely possible to point to any subsequent discovery in physiology or in medicine which has not more or less directly followed from it. What he himself thought of the method which he pursued may be gathered from his last injunction to the Fellows of the College of Physicians, that they should "search and study out the secrets of Nature by way of experiment." In proportion as this injunction has been obeyed, the results of Harvey's own labours have been rendered at once more conspicuous and more valuable.

In order to discover a second example of the kind of experimentation which we have placed in the first group we may pass from the circulatory to the nervous system, which will furnish us with an instance at least as remarkable, and at least as strong, as that which has been already dealt with. At the beginning of the present century the ideas which were entertained with regard to the functions of the different parts of the nervous system were mostly chaotic; and, so far as they were coherent, were mostly erroneous. It was known that animals moved, and that they felt; and that motion and feeling were in some way dependent upon the integrity of the brain, the spinal cord, and the nerves issuing from or entering them. Beyond this there was nothing; and there was absolutely no power to discover either the nature or the seat of any nervous disease. Sir Charles Bell, by researches which were entirely experimental, and which were carried on during the years between 1807 and 1826, took the first great step towards educing order out of chaos. He proved that the nerves connected with the anterior portion of the spinal cord ministered only to motion, and that those connected with the posterior portion ministered only to sensation. It is worth while to note, at a time when accusations of inhumanity are freely brought against experimenters, that the completion of Bell's investigations was delayed for years, because he could not bring himself to inflict the pain which was inseparable from his operations. Here rendered it possible, for the first time, to analyze the symptoms of paralytic affections, and to refer them to disease of this or of the other structure. A few years later, from 1833 to 1837, Marshall Hall, probably acting more or less upon hints gathered from previously unnoticed passages in the works of Unzer and Prochaska, established on a firm basis, and solely by experiment, the so-called "reflex" function of the spinal cord, and its independence, in certain conditions, of the control ordinarily exercised over it by the brain. His discoveries, like those of Bell, at once threw a flood of light upon many of the dark places of nervous pathology, and pointed out the means of rational and successful treatment. Within the last few years experimental research has forced the nervous system to disclose more and more of its secrets, and it is full of promise for the future. It has already been carried sufficiently far to enable the surgeon, in many cases, to discover the precise part of the skull beneath which an abscess or a tumour of the brain is situate, to trephine at the right spot, and, without any further exploration, to empty the abscess or to remove the tumour. Such operations are com-

paratively new, but they have already saved many lives, and without doubt are destined to save many more.

The illustrations drawn from the nervous system are especially valuable, because they relate to a portion of the organism which has been unsuccessfully studied by other methods of inquiry. Before Bell's discoveries were completely published, an attempt was made to localize various faculties in different parts of the surface of the brain; and this attempt led to the promulgation of a farrago of nonsense under the name of "phrenology." The supposed science survived the ridicule of Jeffrey in the *Edinburgh Review*, and maintained a languishing existence until well into the forties, when it received its death-blow from the late Dr. W. B. Carpenter, who soon afterwards endeavoured to build up a theory of brain action in the place of that which he had destroyed. If such an achievement had been possible without the guidance of experiment, Dr. Carpenter would probably have succeeded. A learned physiologist, a painstaking observer, a careful reasoner, he possessed all the qualities which are required for the successful investigation of natural phenomena. He arrived at the conclusion that the phrenologists, although entirely mistaken in their mapping of the brain into regions, were right in their belief that the surfaces of the hemispheres were the seats of the intellectual operations—were, in short, the organs of ideation; and he maintained that the two hemispheres acted together in all the mental operations which most distinguish man from the lower animals. His system was in the highest degree beautiful and symmetrical; but when it was touched by the hand of the experimenter it tumbled to pieces like a house of cards. It was shown by Hitzig, Ferrier, and others that the gray matter of the hemispheres, instead of being the seat of ideation, actually forms a group of great motor centres, and that its different parts exercise control over the movements of different regions. The divisions are as precise as were those of the imaginary "organs" of the phrenologist; but differ from them in resting upon an anatomical foundation. If a particular convolution of the brain surface be excited, there will be movement of the hand; if another, there will be movement of the arm, until an anatomist can play upon the brain surfaces of a chloroformed monkey and make it perform almost any act that he desires. The part in which diseased action commences, be it paralysis or convulsion, tells the surgeon in what portion of the brain he must look for the disease, and has even enabled him to discover and to cure it. The whole of modern brain surgery has been the direct result of experiments on living animals, and could have been brought even to its present early stage by no other method. It must be remembered that trephining of the skull, probably for the elevation or removal of bone depressed by a fracture, was practised by the prehistoric men of the Stone Age; while a brain tumour was first removed within the last five or six years.

To take a third example from the same group, it is obvious that before Harvey the varieties of heart disease must have been an absolutely sealed book to the physician. No one knew what the heart was for, or what work it had to do; and no one could venture upon an opinion as to the nature or the causes of its frequent failures, if, indeed, these were referred to the heart at all, and not to some irregularity in the supply of "vital spirits." When once the functions of the heart were understood, some knowledge of its diseases was slowly gained; but it was not until 1818, nearly two centuries after the publication of Harvey's "Exercitatio," that Laennec introduced the practice of auscultation—that is to say, of listening to the sounds produced within the chest by the movements and actions of the heart and lungs. The action of the heart,

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in health, is attended by a first and a second sound, followed by an interval of silence; and the character and the rhythm of the sounds are alike liable to be altered by disease. In any case in which such alterations have been watched for a considerable time, it is usual to find, after death, very extensive morbid changes, so extensive and so complicated that they throw scarcely any light upon the first steps in the processes by which they have been brought about. In order to understand and detect the beginnings of heart disease it is necessary to understand the precise manner in which the sounds of health are produced and the first alterations by which they may be modified. On both subjects, during the first quarter of this century, the most contrary opinions were entertained by different physicians, and had been arrived at, generally speaking, by some process of more or less ingenious guessing. During the years from 1829 to 1835 the questions at issue were solved by Dr. Hope in the only possible way. He showed, by experiments on living animals, precisely how the sounds were produced and by what changes in the valves or cavities they might be modified in this or that manner. Especially with regard to the second sound, the experiments showed that a conjecture previously made by Dr. Billing had been correct: but, until its correctness had been demonstrated by experiment, it was only one among many other hypotheses. The late Sir Thomas Watson, when explaining the healthy and the morbid sounds of the heart in his lectures, was accustomed to say that, having had the advantage of witnessing Dr. Hope's experiments, he could no longer entertain any doubt as to the truth of the matter. The main results at which Dr. Hope arrived have stood the tests of time and practice, and, with trifling modifications, are now generally accepted. His later experiments led him into some controversy with Dr. Williams, but the points raised were not of such a nature as to affect the principles involved. His experiments cleared up much which had before been doubtful, notwithstanding bedside experience and *post-mortem* examinations, and they have enabled physicians ever since to detect the earliest indications of cardiac changes and correctly to appreciate the sounds which are significant of improvement or of deterioration.

Lying across the middle of the front of the throat, almost immediately under the skin, is a small organ called the thyroid gland or thyroid body. Until quite recently nothing was known of its uses in the economy, inasmuch that it was scarcely supposed to have any; but it was known to become enlarged, chiefly in peasant women in certain counties of England, especially Derbyshire and Wiltshire, and the enlargement was called goitre or bronchocele, or, frequently, "Derbyshire neck." The enlarged thyroid often becomes a source of discomfort from its weight and bulk, and is sometimes a serious impediment to breathing. Proposals were often made to remove it altogether when enlarged; and as the introduction of improved methods of dressing wounds has rendered all surgical operations much less dangerous than they once were, and as improved medical education increases the number of persons capable of performing them skillfully, there was at one time much prospect that such tumours would not long be suffered to remain as inconveniences or disfigurements to their possessors. In this country the subjects of enlarged thyroid were generally healthy people; but in some of the Swiss valleys, from whence the name goitre was taken, the goitrous were frequently idiots or *cretins*, and were apt to be the subjects of other deformities. In 1873 the late Sir William Gull called attention to a state which he described as a "cretinoid condition in adults," and which soon afterwards was called "myxodema," a name implying infil-

tration of the tissues with mucosity. The subjects of myxodema are chiefly adult females, and the disease is characterized by a thickening of the subcutaneous tissue, most noticeable in the face and hands, the face becoming enlarged, swollen looking, and expressionless. There is also dulness of all the faculties and unnatural slowness of all the movements of the body. A suspicion came to be entertained that myxodema was connected with some change in the thyroid and this body was experimentally removed from a sufficient number of animals, in which all the symptoms of the disease speedily declared themselves. The experiments showed—first, that the thyroid body fulfils a very important function with reference to the general nutrition; secondly, that, even if materially enlarged, but still able to discharge its function, it should on no account be removed as if it were something of little or no value in the organism. So far, the gain is perhaps negative; but the causes of thyroidal failure have yet to be ascertained, and there can be little doubt but that positive results will be secured by-and-by. Already, indeed, attempts have been made to cure myxodema by injecting under the skin of the patient a liquid prepared from the thyroid glands of animals, and these attempts have been rewarded by a very promising amount of success.

Proceeding to the second group, an excellent example of them is furnished by the experiments preliminary to John Hunter's operations for the cure of aneurism or to von Graefe's operations for the cure of glaucoma. Aneurism is a disease which depends upon local weakening and consequent dilatation of the coats of an artery, the weakened portion bulging, under the influence of blood pressure, into a sac or cavity, which ultimately bursts and destroys life by hemorrhage. Prior to Harvey's time there could, of course, be no comprehension of the phenomena, no acquaintance with the actual nature of the disease, no rational suggestion of any means of cure. The knowledge of the nature of the circulation, however, pointed out that, if the current of blood entering the aneurismal tumour from the side of the heart could be arrested, the blood actually contained within the cavity might undergo coagulation, so that the tumour would be obliterated and the disease cured. Attempts in this direction were first made by a silk ligature placed close to the aneurism itself, generally with disastrous results from hemorrhage when the ligature ulcerated through the vessel and came away, until it occurred to John Hunter that the coats of the artery in this locality were probably themselves diseased, and that it would be more hopeful to tie the vessel at some distance from the tumour. Before putting his idea into practice he performed experiments upon dogs, with the result of ascertaining that in them any healthy artery might be permanently obliterated by means of a ligature, the blood which the artery had carried being diverted into other channels, furnished mainly by smaller arteries, which underwent dilatation in order to fit them for the increased duty which they were called upon to perform. Satisfied by his experiments, Hunter introduced the method of placing a ligature upon the affected artery at some distance above the aneurism, and he performed this operation for the first time in St. George's Hospital in December, 1785. The results were all that he could desire, and he subsequently operated successfully upon other cases. Other surgeons who followed his example were at first less fortunate; and their ill-success led to further experiments with regard to the best kind of ligature and the best method of tying it. Hunter had tightened his ligature in a degree barely sufficient to arrest the current of blood; but subsequent experiments showed the desirability of

tying it so tightly as to divide the inner tunic of the vessel, while leaving the outer tunic undivided. This improvement, absolutely the result of experimentation upon the arteries of living animals, has ever since maintained its ground, and all arteries are now tied upon this principle, whether for the cure of aneurism or for the arrest of hemorrhage. A still more recent improvement, made in connexion with modern "antiseptic" surgery, is the employment for ligatures of a material which dissolves within the body when its purpose has been fulfilled, so that nothing is left in the wound which can delay or interfere with its healing. It is obvious that no new material could properly be employed for this purpose in the human subject until its qualities and fitness had been thoroughly tested upon animals. The results obtained by experiments on the ligation of arteries, from the time of Hunter onwards, have led to a very great and constantly-increasing saving of human life.

The disease of the eye called glaucoma essentially consists in a hardening of the eyeball, which becomes too full, and consequently too tight or too tense, with the result that the contained nerves are in danger of being disorganized by pressure, and that, unless the tension be relieved, blindness must inevitably follow. Glaucoma was incurable until, about 1850, von Graefe found reason to think that, by cutting out a portion of the iris of the affected eye, he could permanently diminish tension, and so save the sight; and he performed this operation upon a sufficient number of animals to prove that the anticipated effect of diminishing tension could be secured. As soon as he was in possession of this evidence, he operated upon men and women, and succeeded in curing them; so that a disease, which had previously always resisted treatment, is now every day treated successfully as a matter of course. It may possibly be said that neither Hunter's operations on dogs, nor those of von Graefe on rabbits, were strictly necessary. Without their guidance, it would still have been possible to operate on human subjects, and, as we now know, the results would have been satisfactory. But, would either Hunter or von Graefe have been justified in proposing the operation to a patient, for the first time, without saying that it would be an absolutely new experiment; and, if this had been said with proper clearness and distinctness, is it likely that subjects for such experiments would have been speedily found? The high probability is that aneurisms would still be treated by ligatures close to the disease, and that glaucoma would terminate in blindness as heretofore.

For medico-legal purposes experiment has often been used successfully, and has afforded evidence which could not have been obtained in any other way. In cases of poisoning, more especially, it has furnished tests of greater delicacy, and applicable to a smaller quantity of material, than those of the chemist's laboratory. A person has been poisoned by belladonna, and the organs will yield a substance to which no chemical test could be successfully applied, but which will cause dilatation of the pupil when put into the eye of a rabbit. Or the poison may have been strychnia, and enough may be obtained from the tissues to produce tetanus in a frog. The belladonna experiment is one to which not even the most sensitive lady need object, if it were proposed to try it upon her lap-dog; and it may serve to illustrate the wide range over which such inquiries may extend, and how trivial they may be in many instances.

The third group embraces a very large number of experiments, the details of which would mostly be unintelligible to non-medical persons, but which have served to establish the action of some medicament. Most people have heard of the effect of nitrite of amyl in arresting the spasms of angina pectoris, and thus in prolonging or in saving life. The effect is a natural

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consequence of the power of the drug to diminish arterial tension—that is to say, to relax the walls of these vessels, and to permit blood to course along them more freely and in greater quantity than before. Its possession of this power was ascertained by experiment; and, if it be borne in mind that a single drop of the liquid is as much as can safely be administered to a human adult, it will become obvious that no physician would have been justified in prescribing it until the precise nature and limitations of its properties had been made known. It is common to say that experiments of this kind are misleading, because certain medicines act differently upon mankind and upon the lower animals; but this reasoning is entirely fallacious. In nearly every case the difference of action can be estimated and allowed for. No emetic will excite vomiting in a rabbit, because the position and relations of a rabbit's stomach are such that the act is impossible. An instructed experimenter, if he were engaged in a research upon the action of an emetic, would not employ rabbits, but some other animals—dogs, for example—in which vomiting occurs easily. Again, it must be borne in mind that the human body contains structures with which the bodies of some of the lower animals are more abundantly supplied, or of which they are almost wholly made up; and an experiment which will not show the action of a drug on the human body as a whole may yet afford valuable information by showing its action upon a particular structure or tissue. Experiments upon amoebae might show what would be the action of some agent upon the white corpuscles of human blood, and experiments upon molluscs might show what would be its action upon the ciliated epithelium of the human lung. But the most readily intelligible experiments of the third group are, without doubt, those which have been conducted at Hyderabad by Dr. Lauder Brunton and his assistants, at the instigation and at the cost of the Nizam, for the purpose of studying the conditions under which death is produced by the inhalation of chloroform, and with a view to render that agent one of universal applicability and safety. The experimenters arrived at the conclusion that the primary source of danger in the use of chloroform is always failure of the respiration, and never failure of the heart; and they maintain that, if the respiration be watched with proper care during the administration, no fatal accident will ever occur. It would be premature to represent these conclusions as having been placed beyond the reach of doubt; but, if they should be established by larger and longer experience, they will entirely take away the risks which now attend upon the use of what is, for many surgical purposes, incomparably the best anæsthetic, although, on account of the fatalities which have attended its employment, it has been wholly abandoned by many operators, and even in some entire countries. It would be impossible to deny the usefulness of any research by which all danger could be removed from its employment.

The fourth group includes the so-called "inoculation" and "feeding" experiments, which have been extensively performed in connexion with modern bacteriology, and the main features of which have become widely known. It has been established by these that the active cause of many forms of disease is a special microbe, and that in some instances this microbe may be cultivated or reared in such a manner as to diminish the virulence of its effects, so that it will confer, when introduced into the body of a man or an animal, immunity from a severe disease by the production of a mild one. The effect of inoculation experiments has been to identify the several microbes of many diseases, to prove that they are the causes of these diseases, to test the degree in which their effects may be diminished

by cultivation, and the degree in which these diminished effects will afford protection against inoculation, accidental or designed, with the more ordinary forms. None of these facts could be ascertained without experiment on living animals; and in bacteriology, as in so many other branches of science, if experiments on animals were prohibited, medicine must either remain stationary or must reach improvement by means of experiments upon men and women. To take a few cases out of many, inoculation experiments have proved the communicability of diphtheria to mankind by the unboiled milk of diseased cows, and feeding experiments have proved the communicability of tubercle by the consumption of diseased meat. Moreover, by providing a security against a particularly fatal form of cattle disease, known as "anthrax," they have probably saved the lives of many thousand animals for every one which they have sacrificed.

The subject is a tempting one, but space forbids us to pursue it further, although illustrations offer themselves in every branch of medicine and in every branch of surgery. The difficulties of dealing with them arise mainly from their technicality, and partly from the fact that, as already pointed out, it may often happen that each experiment yields but a single brick for the edifice of science. Still, in spite of difficulties, we think we have shown, to any who do not close their eyes wilfully, that experiments on living animals have indeed been fruitful of benefit, as regards both curative and preventive medicine. We must omit all mention of hundreds of such experiments upon which it would have been possible to dwell; and we may close this article in the pithy words of Dr. Lauder Brunton, who says:—

Some people object entirely to experiments on animals. They do this chiefly on two grounds. The first is that such experiments are useless, and the second is that, even if they were useful, we have no right to inflict pain upon animals. The first objection is due to ignorance. Almost all our exact knowledge of the action of drugs on the various organs of the body, as well as of the physiological functions of these organs themselves, has been obtained by experiments on animals.

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This evening Westminster Abbey will be the scene of an interesting ceremony connected with the ancient School which has grown up under its shadow. The Service in commemoration of Founders and Benefactors then to be held may be best explained by quoting from the form appointed for the occasion. It is intended thankfully to commemorate "our pious founders, and all our benefactors, by whose noble liberality the glory of "God hath been advanced, Christian religion "and good learning propagated, and this school "endowed with special benefits and enlarged with "manifold privileges." Thus the world is informed in sonorous Latin by Dr. WILLIAM BILL, the "Billius vere doctus" of SCALIGER, who by order of Queen ELIZABETH drew up the statutes for the government of the School which remained in force until 1869, when new statutes were confirmed by her Majesty Queen VICTORIA. As a matter of fact, and probably as a result of the fluctuations in religion which marked the seventeenth century, the directions of the Elizabethan Statutes have remained a dead letter, and the "Commendatio Benefactorum" has only quite recently been observed by a Latin Service in the Abbey. Westminster School, however, en-

shrines a good deal of English history in its annals, and the present occasion serves to recall its past glories to many who might otherwise have overlooked them. The growth of the railway system and the prejudice against the atmosphere of London, which has driven more than one large school into the country, combined to affect the fortunes of Westminster somewhat injuriously some decades since. But the old foundation was too deeply rooted to be permanently shaken by these chances. Lying away from the general current of human life, and snugly sheltered under the Abbey in one of the pleasantest spots still remaining to "Old London," it boasts among its benefactors, masters and scholars alike, names known wherever the English tongue is spoken, and judging by its present vitality is likely to add largely to its roll of fame. To HENRY VIII. is assigned the first place among the benefactors named in the Commemoration Service, and it is indeed he who gave the School its present character. We are told that "this Church of "Westminster maintained from early times a "School of Grammar, which in later years was "notably encouraged" by the Sovereign named. His reported intention to make Westminster the nursery of Trinity College, Cambridge, as HENRY VI. had already linked Eton to King's, is still curiously evidenced by the union of the two Schools in the "Third Trinity" boating club. ELIZABETH, however, altered this direction of affairs by adding Christchurch Studentships together with the Trinity Scholarships. GEORGE I. and GEORGE II. were both benefactors of Westminster, while among the non-Royal names that of Lady MILDRED, wife of WILLIAM CECIL, Lord BURLEIGH, is honourably recorded in connection with the foundation of the library. In modern times the names of STANLEY, TRENCH, and PHILLIMORE are largely identified with the general progress of the School.

Among its Head Masters Westminster has reason to think gratefully of ALEXANDER NOWELL, afterwards Dean of St. Paul's, who "for the better "learning of the pure Roman style" introduced TERENCE to a community which has so amply appreciated him. Before this STRYPE says that "only barbarous mediæval writers of Latin had "been read at the School." CAMDEN, the antiquary, whose talents "made him admired not only "by the chiefest of the nobility and the most "learned of the nation, but also beyond the seas," was Head Master before he became Clarencieux King-of-Arms. RICHARD BUSBY, who ruled for forty-seven years, is, perhaps, one of the most prominent figures connected with Westminster. Too poor to pay the fees for his degree, he was assisted by the parish of St. Margaret, Westminster, and requited this kindness in his will by an estate of over £500 a year in land and £5,000 in personal property. The list of eminent "Westminsters" is generally begun with HAKLUYT whose annals of the great Elizabethan navigators still delight every Englishman. BEN JONSON was working with his stepfather as a bricklayer when nominated to the School, where he was a scholar during CAMDEN's mastership, and where he appears to have profited more by his education than when he subsequently find him failing to succeed at Cambridge and turning actor with a like result. GEORGE HERBERT seems to have shown at an early age the spirit afterwards

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apparent in his poetry, for ISAAC WALTON writes that "the beauties of his pretty behaviour and wit shined; and he became so eminent and lovely in "this his innocent age that he seemed to be "marked out for piety and to become the "care of heaven." This is certainly a remarkable record for a lad of twelve, and contrasts oddly with the very different verdict passed "on an eminent Westminster" of more modern days, Lord JOHN RUSSELL, who compelled Dr. CAREY to admonish him for "a snappish disposition, with "excessive loquacity, coupled with a habit of not "speaking distinctly." But the juvenile faults of the distinguished statesman were trivial compared with those of FRANCIS ATTERBURY, who was expelled by Dr. BUSBY for incessantly inciting his schoolfellows to mutiny, and who certainly showed something of the determination afterwards characteristic of the famous Bishop of Rochester.

Dr. BUSBY, however, may well have found consolation in a list of pupils which includes the names of DEYDEN, HALIFAX, and MATTHEW PRIOR. The last two both owed their fortune to Lord DORSET, and together they passed from Westminster to Cambridge and thence to London, where, as MACAULAY says, they were "welcomed as promising novices in the literary coffee houses." PRIOR, whose father kept the "Rumner Tavern" at Charing-cross, was removed from Westminster to follow the paternal business, but Lord DORSET came to the rescue of "the literary potman," whom he found reading Horace with his apron over his arm, unsuspecting of the day when he was to be Ambassador at the Court of LOUIS XIV. As the date grows later, however, it becomes almost invidious to pick out the names of the many well-known men who have grown up in this historic foundation. Besides HALIFAX, Westminster boasts of having reared seven Prime Ministers, and naturally mentions with respect the names of five Archbishops of York, among whom Archbishop VERNON-HARCOURT is the best known. The soldiers and lawyers occupy a considerable space, and the names of GIBBON and WARREN HASTINGS recall a great writer and a great maker of history. Not long ago the reminiscences of the late Lord ALBEMARLE brought vividly before the public the school life of Westminster at the beginning of this century. Since those days the rise of many large and successful Public Schools has done much to divide the honours formerly enjoyed by such ancient institutions as Westminster, Winchester, and one or two others; but it has at least done nothing to lessen their glories. Whether it be always wise to assert that the child is the father of the man is a question too wide to be argued here. It is at least certain that early environment has much to do with subsequent development of character and conduct. Viewed in this light, the great Public Schools of England rank only second to the Universities as the nurseries of much that is best in the national life. Those who remember the illustrious Englishmen who have been brought up at Westminster will feel the fitness of commemorating the benefactors who conferred on it "manifold and singular privileges."

A CRITICISM OF THE ROYAL SOCIETY.

(FROM A CORRESPONDENT.)

The recent discussion upon the abuse of scientific terms dealt mainly with the grosser and more palpable forms of the mischief. But these, though they easily lend themselves to denunciation and satire, are perhaps of less real importance than more insidious and less tangible dangers. The numerous societies which, upon terms often scandalously easy, enable the ambitious to decorate their names with mystic capitals, do not, after all, provide anything more than the small change or token-money of scientific appreciation. It is undoubtedly desirable that even this should be kept as close as possible to its nominal value, but it is of infinitely more importance that the real standard should be jealously guarded against depreciation. That standard unquestionably is the fellowship of the Royal Society, an honour which ought to be the more carefully bestowed because it is of international as well as of domestic significance.

The Royal Society is free from the more vulgar temptations that assail secondary bodies having similar or analogous purposes. It is constituted upon larger, more dignified, and more independent lines. The number of elections in each year is limited to 15, and an attempt made not long ago to raise the number was fortunately defeated. It has been shown by General Strachey, in an exhaustive scientific examination of the question, that the present rate of election suffices to maintain the non-privileged membership at a point somewhat higher than the actual strength of the Society at the present time. Since there is no financial necessity for an increase of the membership, it is obvious that nothing could justify it except indisputable evidence that every year produces more than 15 candidates possessing claims of such a kind that their exclusion is a positive injustice to themselves and an injury to the cause of science. The Royal Society is officially and statutorily described as the "Royal Society for improving natural knowledge," that is to say for promoting and rewarding original investigation. It will hardly be contended by any one at all conversant with the matter that 15 elections per annum are inadequate for the due recognition of really original work. On the contrary, it is only by a loose and wide interpretation of the governing clause in its constitution that the Royal Society can fill up, year by year, the full number of its permitted elections. But though it does so, as has just been observed, the vulgar temptations to extension and accompanying degradation of its fellowship, this laxity in construing its aims opens the door to more subtle abuses, which become mischievous in proportion to the greatness of the Royal Society's position and functions.

It needs but a moderate acquaintance with the ways of human nature to understand how the thing works out in practice. Every coveted distinction, of no matter what character, inevitably becomes an object of endeavour by no means limited to the forms of activity which it is intended to encourage. The Fellowship of the Royal Society is no exception to the rule. Personal solicitations and social influence are frequently called in to reinforce or even to replace the claims of scientific eminence. Arts not remotely akin to those of the political wirepuller and log-roller are practised with fair success in the scientific world. A kind of amiable collusion among aspirants to honour is occasionally to be observed by the vigilant. Men who have

never done anything to "improve natural knowledge" may without much difficulty recast some other man's improvements into a sensational or popular form. Their friends then hail their performance as one of the most extraordinary births of time, and while the little "boom" is at its height they slip quietly into the coveted seat among the immortals. In due time they help to "boom" the people who so kindly assisted themselves, the world is enriched with many new editions of old discoveries, and the judicious smile at the relapse of the ephemeral reputations into their original obscurity plus F.R.S.

Very little reflection is needed to see how greatly all this sort of thing is facilitated by the initial uncertainty as to the standard of fitness. There are not 15 new men every year who really conquer new fields and in the proper sense of the words "improve natural knowledge." Hence some are always elected on the strength of work which is not novel or original, and sometimes is not even sound and accurate. The fact that there is this uncertainty in the standard makes it easy, unless the greatest vigilance is exercised, to pass over real workers who do not pull wires, and to choose an unnecessary number of mere adapters who do. In this way it becomes an important question whether the actual machinery of the Royal Society secures the best results attainable in the circumstances, or, in other words, lowers the standard denoted by F.R.S. as little as possible below what is assumed in the constitution.

The council of the Royal Society is practically a co-optative body. Nominally ten members are annually chosen by ballot in a general meeting, 11 of the existing members retaining their seats. But a list of ten names is always submitted by the existing council, and every one with any experience of such matters knows how very hard it is, except in extreme cases, to offer any effective opposition to the nominees of the governing body. In the statutes of the society there is no mention of permanent officeholders, still less any provision for their appointment. The officials are to be chosen annually by the society out of the newly constituted council. But the outgoing council nominates these officebearers as it nominates the ten new members of the succeeding council, and, as a matter of fact, they become permanent. They are five in number, which is a very large proportion of the council, they naturally tend to cohere more and more closely the longer they work together, and to oppose a more and more stubborn resistance to outside interference, not of malice aforethought, but simply by the nature of the case. Experience again indicates that within the council it must be very difficult to make any successful resistance to the officials. They are sure to have some steady supporters in a body they have a large share in nominating, and upon any average attendance they are pretty certain of a majority. Finally, it generally happens that in an oligarchy of this kind there is some one ambitious of running the machine, and blessed with leisure to indulge his taste, whose personal preferences and idiosyncrasies leave an unmistakable mark upon the management of the society. The fact is worth recalling that the tendencies here indicated did actually become so mischievous some half-century ago that Sir William Grove, then in the midst of his splendid scientific work, became the leader of a revolt against the abuses of the system, and effected a great and salutary reform. A man of his energy and ability is not always forthcoming when he is needed, but it ought not to be impossible to find a remedy for growing evils before they become intolerable.

All this points to a certain exclusiveness and tendency to run in grooves, from which the Royal Society, above all societies, ought to be free. The effect upon the composition of the council is brought out very clearly by an analysis of the

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lists for the last 20 years. This shows that the council is recruited from a somewhat limited area. There are favoured persons, not always the most notable improvers of natural knowledge, who reappear upon the council every five or six years. Others with at least equal claims are in a ten years' rotation, some run to 14 or 15 years, and there are others with orbits so eccentric that they may be regarded as lost to the system altogether. Some men for no apparent reason are put upon the council almost immediately after their entry into the society, while many old Fellows of certainly equal eminence are never nominated at all. Looking at the council from another point of view, the observer is struck by the excessive representation of a single great academical institution, which, though justly famous, has no corresponding preponderance in English science. From that institution came the proposal to increase the number of annual elections, the F.R.S. being apparently regarded in certain influential quarters rather as a decoration for academical promise than as the reward of scientific performance.

The outcome of all this in the society itself is a predominant scholasticism, undue encouragement of the bread-and-butter view of science and scientific recognition, and consequent depreciation of the standard. The professor abounds greatly, while independent investigators of the type of Joule, Brewer, Spottiswoode, De la Rue, Darwin, Gassiot, Grove, and others who have been the glory of English science, are comparatively rare. When the professor really improves natural knowledge, his title is, of course, indisputable, but the professor is far from invariably regarding this as any part of his duty or mission, and if he obtains fellowship of the Royal Society without it, merely *quo* Professor, at least one incentive to original work is obviously destroyed. Moreover, eminent professors may be named who are also eminent improvers of natural knowledge, yet are not fellows of the Royal Society. What the Society requires for the maintenance of the high position it ought to hold is greater breadth and elasticity in its governing body, with a freer circulation of fresh blood; discouragement of the professional and mechanical scholasticism that is invading our educational centres; more active and sedulous encouragement of original and disinterested research; and sharper discrimination between scientific discovery and scientific compilation.

Times Dec. 23. 1892

THE LATE SIR RICHARD OWEN.

The Council of the Zoological Society communicated the following resolution to the general meeting of the society, held at their house in Hanover-square yesterday:—

"The Council of the Zoological Society of London have received with great regret the announcement of the death of Sir Richard Owen—one of the oldest and most distinguished Fellows of the society. The series of memoirs on subjects connected with comparative anatomy and zoology which, for a period extending over more than 50 years, beginning with the first scientific meeting of the society held on November 9, 1830, Sir Richard Owen has contributed to the 'Transactions' and 'Proceedings' of the society, form a monument of prodigious and incessant labour in the branch of science for the promotion of which the society was founded, and have added vastly to our knowledge of the subjects to which his long life was devoted. The council are also not unmindful of Sir Richard Owen's great services to science in connexion with other institutions than their own, especially of his care in the development of the Hunterian collection of the Royal College of Surgeons, which occupied so many years of his earlier life, and of the active part which he took,

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at a later period, in promoting the erection of the Natural History branch of the British Museum at South Kensington. While endeavouring thus briefly to record their high sense of the value of Sir Richard Owen's labours for zoological science, the council also desire to express their sincere sympathy with the surviving members of his family in their present bereavement."

The council also announced that they had appointed a deputation, consisting of the president (Sir William Flower), Sir Joseph Fayer (vice-president), Dr. A. Günther, F.R.S. (vice-president), Lieutenant-Colonel Godwin-Austen, F.R.S., Mr. Howard Saunders, and the secretary (Mr. P. L. Selater, F.R.S.), to represent the society at the funeral this day.

The *British Medical Journal* says:—Sir Richard Owen had an intense love of animals and birds, and his old-fashioned garden at Richmond Park, containing shrubs and trees from all parts of the world, planted with his own hands, was vocal with the song of birds. Mr. Startin writes:—"Several times I have had the privilege of being invited by him to come 'and see his feathered friends.' I have then seen all the birds in his garden come to his call; blackbirds, thrushes, finches, tits, and pigeons come and perch on his shoulders and head and feed out of his hands and lips."

Times Dec. 24. 1892

FUNERAL OF SIR RICHARD OWEN.

The remains of Sir Richard Owen were interred yesterday in Ham Churchyard beside those of his wife. The procession left Sheen-lodge at 10 minutes past 2, reaching the church shortly before 3. The coffin, of polished oak with heavy brass mountings, bore the inscription:—"Richard Owen, died 18th December, 1892, aged 88 years."

It was conveyed in an open car followed by four carriages, in one of which was the chief mourner, the deceased's grandson, the Rev. Richard Owen, who is curate of East Sheen. The service in the church and at the grave side was conducted by the Rev. T. G. P. Hough, vicar of Ham, and the Rev. A. S. Shutte, vicar of Mortlake.

Among those present were the Duke of Teck, Dr. Kingston Fox (representing the Hunterian Society, of which he is honorary secretary), and the following representatives of the Zoological Society:—Sir William Flower (president), Sir Joseph Fayer (vice-president), Dr. A. Günther, F.R.S. (vice-president), Mr. P. L. Selater, F.R.S. (secretary); also Professor Michael Foster, Professor Charles Stewart (curator of the Royal College of Surgeons and president of the Linnean Society), Sir John Evans (representing the Royal Society), Dr. Woodward, F.R.S. (the British Museum, vice-president of the Palaeontological Society, of which Sir Richard Owen had been perpetual president, and representing also the Comitato Geologico Italiano), Professor Atkinson, F.R.S., the Hon. Lyulph Stanley, Dr. Palmer (medical attendant to Sir Richard Owen), Mr. Bryant (president of the College of Surgeons), General Sir George Bouchier, Sir Mountstuart Grant-Duff (president of the Geographical Society), Mr. Percy Wood, Mr. Carruthers (vice-president of the Linnean Society), Mr. Hepburn (representing the Leathersellers' Company), Sir Duncan Campbell, Dr. Sharpe (British Museum), Mr. Charles Woodhouse (Natural History Museum), Mr. Charles Fagan (British Museum), Lady Ellis, and Dr. Forsyth Major (representing Italian scientific societies).

The wreaths included one of large white chrysanthemums and arum lilies, "as a last token of sincere admiration and affection from his old friends the Duke and Duchess of Teck." Mr. and Mrs. Holman Hunt sent a wreath of golden-leaved laurel, "with high regard and in grateful memory of a happy friendship." One from Sir Henry W. Acland was "in token of gratitude and affection for Sir Richard Owen during 50 years." Wreaths were also sent, among others, by the Baroness de Stern and Miss de Stern, Mr. and Mrs. Charles Pritchard, Mr. Osbert Chadwick and Miss Chadwick, the Master and Wardens of the Leathersellers' Company, Mr. Wilson Noble, the Earl of Leven, and Lady White Cooper and Miss White Cooper.

A CRITICISM OF THE ROYAL SOCIETY.

TO THE EDITOR OF THE TIMES.

Sir,—After the lapse of a fortnight a reply to the "Criticism of the Royal Society," published in your columns on December 1, has appeared in a weekly journal, which is believed to be edited by a member of the council. As all the world is aware that *The Times* extends an impartial hospitality to relevant contributions from whatever point of view to any and every controversy upon questions of public interest, it is hardly necessary to point out that this singular selection of a medium for reply indicates a consciousness of weakness. Nor is more required than a passing reference to the bad taste, to use no severer expression, of the insinuation, based upon nothing but angry conjecture, that there was some kind of unworthy collusion between yourself and your correspondent to "arrange the discharge of these bombs into the scientific camp." There are persons apparently incapable of believing that any criticism distasteful to themselves can be prompted by anything but petty and personal motives.

This apology, more ingenuous than ingenious, offers many temptations to dialectical treatment. I will confine myself, however, to pointing out, what must have struck every discriminating reader, that the writer implicitly or explicitly admits the truth of the statements upon which I based my conclusion that more elasticity and a larger infusion of fresh blood are required to make the government of the Royal Society what every one who has the interest of science at heart would wish it to be. The conclusion itself is naturally distasteful to an apologist for the council as it is. To those who are comfortably seated in the small circle by which the affairs of the Royal Society are too exclusively managed, the arrangements that place and keep them there can hardly seem other than agreeable and convenient. But it is satisfactory to find that, although the apologist again and again charges me with ignorance, he has nothing to show in the way of superior knowledge, and, indeed, gives himself away in the most amusing manner by admitting and even insisting upon points essential to my contention.

He tells us that formerly the President's term of office was unlimited, whereas now it has practically reduced itself to five years. Exactly so; but why in that case cannot the term of office of the other high officials be reduced in like manner? With a council wholly renewed every two years and a President going out at the end of five, it is obvious that the permanent officials have an undue influence as against both. Few people, we are informed, have any idea of the enormous and arduous labours imposed upon these gentlemen, and in another place we are told that one reason for the exclusiveness of the council is the necessity for finding councillors resident in London. But both the permanent secretaries with their tremendous burdens are non-resident. One of them stands in the front rank of improvers of natural knowledge. He has done and is still doing magnificent original work in physics and mathematics, which must make very large demands upon his time and energy. The other, if less fully occupied in research, has his hands full of academical work. His professorship, held under the increased emoluments and restrictions of the new statutes, must, apart from the care of his garden, stand greatly in the way of that sedulous application to the work of the Royal Society which the apologist would have us believe to be necessary. In these circumstances it is at least excusable to assume, without in the least

wishing to deny due credit for honest work, that there can be nothing in the labours of the permanent secretaries of such superhuman difficulty as to render the annual retirement of one out of the five permanent officials absolutely fatal to the transaction of the Royal Society's affairs.

The apologist, indeed, obligingly reminds us that permanent officials have before now taken this comparatively modest view of their own labours, and have "over and over again" urged the importance of giving the non-official members of the council a larger share of real power by lengthening their term of office. But to this, as the apologist observes in a tone of severe disapproval, the majority of the Fellows cannot be got to consent. The majority are wise in their generation, because to lengthen the term of office for councillors, chosen as at present from a narrow circle by the permanent officials, would be to reduce still further the chance of obtaining needful reform. What is wanted is greater freedom of movement and rapidity of rotation among the permanent officials, not less of these things in the council at large. Those who drew up the statutes of the Royal Society possibly knew as much about the matter as the present apologist, and they certainly did not provide for the permanence of any official. What is more, they did not contemplate the payment of any Fellow, and it is only by an innovation, which for some reason is not specifically acknowledged in the accounts, that the secretaries receive a salary.

It is further to be observed that if the permanent officials are burdened with the proper work of the Royal Society, it is a thousand pities that they should add to their labours by undertaking things which lie quite outside the sphere of the society. We may take as a pertinent example the co-operation of the Royal Society with the London County Council in getting up a quasi-independent commission of inquiry into the London water supply, alongside of the Royal Commission now dealing with the same subject. There is no question here of improving natural knowledge, but merely of inquiry into facts from a commercial and political point of view. That is not the affair of the Royal Society, which runs a serious risk of lowering its dignity and compromising its position by undertaking such work. What has happened in this very case? Why, that the people ostensibly conducting the independent inquiry on the joint behalf of the Royal Society and the London County Council are actually appearing as paid experts for one of the parties before the Royal Commission. That may be good business from a County Council point of view; but I do not hesitate to say that it is questionable work for the leading scientific society of the country to be engaged in. What is more, I do not hesitate to say that the majority of the Fellows are of my opinion, and that the business would never have been touched had the society been governed by the "common sense of most." But a narrow ring of permanent administrators and their nominees is open to influences, social, political, and miscellaneous, which do not operate upon a large and comparatively disinterested body.

The apologist is confident that the council can defy criticism as regards 295 out of its 300 selections for the last 20 years. He is welcome to his opinion; but he will not find many to share it outside past, present, and expectant councillors. Can he explain why a late distinguished toxicologist never obtained admission to the Royal Society although presented again and again with a certificate literally covered with the names of Fellows urging his claims? It was because, though councils changed, the permanent officials remained. Can the apologist explain why Sir Richard Owen never obtained the Presidentship he was so well fitted to adorn except by reference to the same

cause? Does he know why Lord Kelvin is President at this moment? Simply as the result of a desperate effort from outside the governing ring to prevent the appointment of an estimable gentleman who has no claims to scientific distinction that can be named in the same fortnight with Lord Kelvin's. Does he know why the professor, and the youthful professor, abounds greatly, while older men who have done the good work which the others may or may not do stand out in the cold? It is because the young professor has frequently "devised" for one of the august personages who control selections. I do not wish to mention names of living men more than necessary, but examples in plenty are within the knowledge of all Fellows of the Royal Society. Under the present system a single pertinacious official can make his prejudices and sympathies felt in the composition of the Royal Society throughout a long term of years. This is a power which it is not for the interests of the society to intrust to any man.

As for the selections actually made by the council, they are no doubt easily defensible if we are to accept the principle enunciated with such charming frankness by the apologist—that an increase of professorships necessarily means an increase of the number of persons entitled to the Fellowship. I hold, on the contrary, that a man may be an admirable professor and exceedingly useful in his place as a teacher, and yet may have no claim whatever to a distinction intended to mark eminence in quite a different line. There are professors, as I said before, who are also eminent improvers of natural knowledge, but there are many who are nothing of the kind, and some of whom it is very safe to say that they never will be.

The apologist says that it is not for the council to ask any man, however eminent in science, to join the society. Certainly it is not. But it is for the council to see that the Fellowship is made and kept a thing which every man, however distinguished, shall be proud to possess. That will never be done by people who think that what is good enough for the appointers to professorships is more than good enough for selectors to Fellowship of the Royal Society. The apologist talks of men who have "chosen to abstain from taking the steps" that would have placed them in the society. No man is supposed to take any steps whatever. Every new candidate is proposed by men who think him worthy of the honour, and that without his knowledge. As a matter of fact, men of real greatness do not take steps, while second and third rate men pull wires, work little rigs among their friends, get up little bits of showy "investigation" *ad hoc*, and generally, as I said before, resort to the methods of the caucus. There are persons who have accepted honours at the Royal Society's hands, yet have marked their sense of the cheapness of the F.R.S. by refusing to accept it. The good taste of the sneer in the apologist's phrase "glad to accept honours," especially in view of a personal application which is easy for every scientific man to divine, I leave for others to estimate. But the Royal Society, whatever may be thought by the gentlemen who run it, is by no means in the position of lofty independence of the best workers of the day which is assumed by the apologist. The "Transactions" of the last ten years do not, in the opinion of many good judges, compare very favourably with earlier periods, and might have been considerably enriched by communications which, as a matter of fact, have adorned the annals of a kindred institution.

I am, Sir, your obedient servant.

London, Dec. 21. THE CRITIC.

THE LATE SIR RICHARD OWEN.—A preliminary meeting was held yesterday afternoon at the house of Sir James Paget, with a view to the promotion of a memorial to commemorate the late Sir Richard Owen's services to science. It was resolved to form a committee to carry out the object, the following among others having already promised to be members:—The presidents of the Royal College of Physicians and Surgeons and of most of the scientific societies in London, the Duke of Teck, Lord Playfair, Professor Huxley, Sir Joseph Hooker, Sir Henry Acland, Mr. Selater, Sir John Evans, Dr. Michael Foster, Sir W. Savory, Mr. J. W. Hulke, Sir Joseph Payrer, Sir Edward Fry, Dr. Günther, Mr. Carruthers, and Dr. Woodward. Sir William Flower will act as treasurer. It was determined to call a general meeting, to be held in the rooms of the Royal Society at an early date. It was suggested that the memorial should be a marble statue, to be placed in the hall of the Natural History Museum.

"Times" Jan. 8. 1893

THE ROYAL SOCIETY.

TO THE EDITOR OF THE TIMES.

Sir,—The trick of the official *déméni* is so well known nowadays that none but very simple persons are in danger of being deceived by it. I need hardly point out that "the writer of the article in *Nature*" denies what I did not affirm, and affirms what I never doubted. I am as fully aware as himself that no other candidate than Lord Kelvin was so much as mentioned in the council. It is exceedingly probable that in the whole history of the Royal Society no single case can be found of a candidate for the presidentship being mentioned in the council until it was morally certain that he would be elected. Nevertheless, I repeat that if the persons who usually control the business of the Royal Society had had their way on that occasion, the present president would be not Lord Kelvin but another. They discovered that their project would encounter opposition far more formidable than they are accustomed to meet, and like wise men they abandoned it and proposed the candidate who would have been carried in their despite. The final agreement was complete no doubt, but it was attained by the surrender of the governing ring to an ascertained public opinion among the Fellows which they could not face. It is not in the council that matters of this kind are really settled, nor does the minute-book of the Royal or any other society give any clue to the forces by which the settlement is effected. Any one who likes to turn to the clause in the statutes which regulates procedure in case of a vacancy in the presidential office occurring between one anniversary election and another will find that the council are to meet and not to separate until the major part have agreed upon a new president. Does anybody suppose that the councillors go prepared to starve one another out in the interests of opposing candidates? Not very likely. The thing is really settled before the council meets at all; and as the preceding clause declares that the procedure is to be in all respects the same as at anniversary elections, we have special as well as general reasons for knowing that there may be a very sharp contest indeed without any trace of it appearing in the minutes. That there was such a conflict of opinion on the occasion in question was matter of common knowledge among the Fellows.

But this is really a very small matter in relation to my argument. It is only one illustration out of several upon one particular point, and might be removed altogether without weakening

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my case in the smallest degree. How is it that this writer in *Nature* cannot out of the vastness of his information do anything more to correct the ignorance he pretends to find in me than offer an illusory contradiction upon one comparatively unimportant point? Does he really imagine that the public can be impressed by his somewhat arrogant accusations of ignorance, in the absence of any serious attempt to face the obvious issues? Is he a Scotchman that he should be so devoid of all sense of humour as not to perceive the absurdity of talking about "honest men" as if he and his friends were monopolists of honesty? When he talks of my arguments for more equal distribution of real power as "calumnies," he is presumably ignorant that the same demand has been preferred from the presidential chair by a president who was both a man of the world and a man of science. Mr. Spottiswoode, after discussing possible ways of giving ordinary councillors greater power as against permanent officials, declined to commit himself to any definite proposition, and added:—"But the great confidence which the Society has, especially of late years, placed in its more permanent officers, and the power which naturally accrues to them from the comparatively short tenure of office by the other members of council, appear to me to be points of which the Society should not lose sight." This is just about as strong a pronouncement as could be made in the circumstances upon any matter affecting the management of the Society. These words were spoken in 1880, and the evils which Mr. Spottiswoode noted have increased very seriously since that date. In 1880 science stood far more apart from social and political activity than it does now. Mr. Spottiswoode himself spent as much upon promoting science as would have provided a politician with a baronetcy, and far more than has since been found necessary to procure honours for men of science. The change may be for the better or for the worse, but, in any case, it inevitably adds to the keenness of the competition for power in the scientific world, and tends to the introduction of political methods into scientific organizations. An apt illustration is to be found in that anomalous and superfluous co-operation of the Royal Society with the London County Council, to which I referred the other day, and upon which the omniscient writer in *Nature* maintains a significant silence. The Royal Society has always held itself ready to give assistance when called on to the Government of the day. But now it has begun to call upon the Government to co-operate with it in making inquiries which the Government did not want and which the Society did not want until it was moved from the outside by somebody who did. This may, I hope, be regarded as a specific statement, but the writer in *Nature* will not venture to deny it if he knows his presidential addresses as he ought.

It is only charitable to suppose that Professor Schäfer is a better teacher of physiology than he is a controversialist. His controversial method is that of an angry woman, and his grasp of the issues is not of any higher order. But there is one curious and unconscious admission in his letter which is worth a moment's notice. He says that the official members of council always defer to the opinions of individual members when a question is under discussion "relating to the branch of science of which they are regarded as more especially representative." Without straining the truth, this proposition might be stated conversely, and it shows a differentiation of function among the non-official members of such a kind that a member does not represent scientific interests in general so much as the interests and opinions of his own branch. *Divide et impera*. This arrangement only adds to the power "which naturally accrues" to the permanent officers. No matter how able and

honest they may be—and I have not said one word in derogation of the ability and honesty of any one of them—they naturally and inevitably use that excessive power in accordance with the personal idiosyncrasies from which no man can escape, and under the influence of motives which, when in long and persistent operation, deflect the course of the best of men.

In pointing out the defects of Royal Society organization and illustrating my contention by reference to their consequences, I am merely exercising the right of every citizen to discuss matters of public interest. The petulant indignation which a temperate criticism has provoked in certain quarters, and the absence of any attempt either to traverse my main contention or to upset the statements made in its support, are things which the public, whether scientific or not, are perfectly competent to appreciate.

I am, Sir, your obedient servant,
THE CRITIC.

"The Times" Jan. 4. 1893

THE ROYAL SOCIETY.

TO THE EDITOR OF THE TIMES.

Sir,—In his letter of to-day's date, the "Critic" of the Royal Society says that "if the persons who usually control the business of the society had had their way the present president would not be Lord Kelvin, but another."

I reply that the statement is erroneous; that the "persons who usually control the business of the society" did have their way; and that the election of Lord Kelvin was the consequence of their having their way.

When "Critic" has withdrawn and apologized for the chief misstatement of which he has been guilty, it may be worth while to dispose of the others.

I am, Sir, your obedient servant,
THE AUTHOR OF THE ARTICLE IN *NATURE*.
January 3.

TO THE EDITOR OF THE TIMES.

Sir,—I can fully endorse the remarks of "The Critic" upon the government of the Royal Society. The evils which are thus so clearly pointed out are certain to continue, and probably to be accentuated, so long as the system prevails of employing Fellows of the Society to act as paid secretaries. In other scientific societies Fellows act as honorary secretaries; the paid officers are not Fellows. The result is that a healthy change takes place continuously in the governing body.

I am, Sir,
A FELLOW OF ABOVE THIRTY YEARS' STANDING WHO HAS SERVED MORE THAN ONCE ON THE COUNCIL.

"THE GREAT SEA SERPENT."

TO THE EDITOR OF THE TIMES.

Sir,—In 1851 I happened to be on a visit to the house of Mrs. M'Iver (mother of Mr. Evandu M'Iver, of Seourie, who is still living, the respected factor of the Duke of Sutherland at Loch Inver), and I not only heard from her a detailed account of the recent appearance of a great sea serpent in the little bay of Greiss, opposite her residence, but I actually became the possessor of a number of scales, about the size and shape of a scallop shell, which were found on the reef of rock in the bays whereon the monster had comforted itself by scratching its head. Mrs. M'Iver had not merely heard of the strange creature; she had seen it taking a leisurely swim along the beach, to the great alarm of the fish, shoals of which leaped out of the water in front of it; and the venerable lady, whose words would be received with perfect faith by any one who knew her, said that she had watched the sea serpent making for the reef, when the fishermen belonging to the cottages close at hand, having recovered their presence of mind, fired upon and apparently wounded it, and that she had seen it thrust its head some eight or ten feet of its body up on the rocks, where it rested for some time till the shore boats approached, whereupon it slid into the water and disappeared seawards, leaving a long wake or furrow behind it. The fishermen found the scales of which I speak on the rocks, and gave some of them to Mrs. M'Iver. Many years afterwards, in conversation with Sir Richard Owen at East Sheen, I happened to mention the circumstance. He asked if I could let him see the scales. On looking for them next day in the place in my collection of "curios" where they ought to have been, I was crestfallen at the discovery that my *pieces justificatives* had gone, for Sir Richard, then Professor Owen, was evidently incredulous, and I was, and am, a believer. In arguing the matter with him, I remarked that "I had seen sea snakes 5ft. or 6ft. long, and that there was no reason to suppose there might not be snakes 50ft. or 60ft. long." Sir Richard replied:—"Well, well, if you told me you had seen men 7ft. or 8ft. high I would believe you, but I fear I could not accept a statement from you that you had seen men 70ft. or 80ft. in height." Even the scales would not have convinced him. It never seemed to me that the absence of recent remains of the great sea serpent was evidence that there is no such thing. I am not aware that the bones of whales or sharks, &c., are ever dredged up from the bottom of the sea. But I confess my faith, which still lives, began in the Isle of Lewis in 1851, and it was confirmed one day, a long time after, when the Rev. Dr. Joass, the learned and excellent minister of Golspie, related how that he, walking with the late Lady Florence Chaplin by the sea near Dunrobin, saw an immense sea serpent, and, calling her attention to it, was enabled to corroborate his observations by her independent evidence. Dr. Joass, I think, published the result of those observations—and was, of course, duly ridiculed—at the time. I dare say Mr. Evandu M'Iver can call to mind the apparition which I have mentioned in the bay of Greiss; but in the present state of public opinion regarding the existence of the sea serpent witnesses to the truth are readily discouraged.

I am, Sir, yours obediently,
Drayton-hall, Uxbridge. W. H. RUSSELL.

It is with regret we announce the death of Lord Brabourne, which occurred yesterday morning at Smeeth Paddocks, Ashford, Kent, after only a few days' illness. He had been suffering from cold, and a message was received in town on Saturday stating that he was confined to bed, but a fatal result was not at all apprehended. Indeed, according to a late telegram from Ashford, he had improved so much on Saturday that his medical attendant did not consider it necessary to call on Sunday. About half-past ten yesterday morning, however, he fell in walking across the room to his bed, and never subsequently rallied, death supervening, before the doctor arrived, from failure of the heart's action. The Right Hon. Edward Hugessen Knatchbull-Hugessen, first Baron Brabourne, was the son of the Right Hon. Sir Edward Knatchbull, M.P., and had nearly completed his sixty-fourth year. Educated at Eton and Magdalen College, Oxford, he entered public life as the Liberal member for Sandwich in 1857, and continued its representative until 1880, when he was raised to the peerage. From 1859 to 1868 he was a Lord of the Treasury, and subsequently filled the positions of Under-Secretary for the Home Department and the Colonies. In the Peers' House Lord Brabourne warmly opposed the Irish legislation of his former colleagues, and sharply criticised the withdrawal from the Transvaal. In 1885 he formally joined the Conservative Party. Lord Brabourne was twice married—first, in 1852, to Anna Maria Elizabeth, younger daughter of the Rev. M. R. Southwell, vicar of St. Stephen's, St. Albans; and secondly in 1890, to Ethel Mary, daughter of Colonel Sir George Walker, A.D.C., of Crawfordton, Dumfriesshire. The family honours devolve upon his son, the Hon. Edward Knatchbull-Hugessen, late Gladstonian member for Rochester.

Lord Brabourne was a prolific writer. His naturalistic fairy-tales were remarkably successful. Beginning with "Stories for My Children," in 1869, they ran on in a continuous series to "Friends and Foes from Fairyland," in 1885. Their author ransacked rivers, lakes, mountains, the charming and the weird aspects of nature, for subjects of genial stories, which, without any obtrusive moral, often carried with them a real significance. He also edited the "Letters of Jane Austen," his maternal great-aunt; and was the author of two pamphlets, one on the "Life, Times, and Character of Oliver Cromwell," and a second entitled "The Truth about the Transvaal." Recently Lord Brabourne communicated a series of papers to "Blackwood's Magazine" on "Old Elections," apropos of which he was said to be the possessor of the largest store of election literature extant.

Daily Telegraph Feb. 5. 93

The funeral of the late Lord Brabourne has been provisionally fixed for Friday next, but the date will depend upon the arrival of his son and heir, the Hon. E. Knatchbull-Hugessen (now Lord Brabourne), who has been summoned from a foreign tour. Our correspondent telegraphs that the death of the late peer was even more unexpected than has been reported. He was not only able to leave his room on Monday morning, but took a hearty breakfast, and afterwards in proceeding to another room he fell in the lobby. When picked up it was found that his temples were bruised. Lady Brabourne was immediately at hand, and every effort made to restore consciousness, but without avail, death being due, as already stated, to failure of the heart's action. Lady Brabourne is suffering severely from the shock.

THE SUTHERLAND FAMILY QUARREL.

Duchess Blair's Pamphlet—Everybody's Fault but Her Own—Strange Statements.

THE DUCHESS DOWAGER OF SUTHERLAND has been smitten with the literary mania of the day, and has "rushed into print," the result being a pamphlet consisting, besides preface, of ten closely printed pages, giving an account of the unfortunate and notorious disputes in the Sutherland family, from her Grace's point of view of course. The publication is thus justified in the preface:—

"The Duke and Duchess having been advised that it would be well to have a record of the events of the last three years, as regards the attitude of their children towards them, they have by the aid of good memory, diaries, and letters, written this faithful account of the same, believing that it will show how they have been absolutely forced into the sad quarrel now existing between Lord Stafford and themselves.—Trentham, June, 1892.

After an account of the engagement and marriage, which was solemnised at Denedin, by the Bishop of Florida, on the 4th March, 1889, and to the announcement of which, it says, the Duke received from "his three children most unkind answers, showing an utter absence of care for his future happiness." The opening passages deal with the return to Stafford House, in which the action of the family is severely animadverted on, and the whole *onus* of the initiatory quarrels thrown upon them. Lady Alix, in particular, is accused of dismantling the house and details of pictures, ornaments, letters, &c., said to have been removed by her, are fully given, and further on it says "every letter and paper had been taken from Torquay also."

"Soon after our marriage," the pamphlet goes on to say, "the Duchess had written to the two sons and Lady Alix, saying she hoped in time they would learn to like her, and would still come to the old homes, which were large enough for us all. No answers were received. Immediately after our return from Torquay Lady Alix began

WRITING MOST DISAGREEABLE LETTERS to her father, finding fault with our going to Torquay, and similar nonsense. In July we offered Uppat—a beautiful place close to Dunrobin—to the Staffords for the shooting season, hoping they would see how much happier it would be if they were on friendly terms. They declined Uppat, but asked for Loch Choire, which we lent them. They ordered in £200 worth of furniture for the month they were there, and sent the bills to the Duke, but we made no objection to this, being resolved to do all we could to promote kindly feeling. But Lady Alix did so very unkind a thing three times during their stay there that it was impossible to lend it them again. She got some of the servants at the castle to let her know when the Duke's engine was ordered by him for an expedition, and then telegraphed to our stationmaster to find out whether the Duchess was going with him. If she was she did not appear; if she was not she drove to a station where he would stop, and then joined him for the rest of the journey. This made so much talk, and was in such bad taste, that we felt as long as such things were done we could not encourage their coming into our neighbourhood."

Then follows a paragraph about the house, Tittensor Chase, near Trentham, which the Duchess is claiming as a Dover House, a claim that is being disputed in the English Law Courts. It says:—

"During this same autumn the question of an English Dover House for the Duchess in case of her surviving the Duke had to be settled. Clitreden and No. 2 Hamilton Place had been the Dowager-Duchess's house for her widowhood, but the Duke had sold both of them, as the Duchess Anne had expressed a wish to live at Torquay if she survived the Duke. Tittensor Chase, a small place near Trentham, was selected by us as a

SUITABLE HOME FOR AN ENGLISH ONE in case the Duchess ever required it, and the Duke asked Lord Stafford to join him in converting it into a permanent Dover House. To this moderate request Lord Stafford gave a brusque refusal, saying he did not approve of widows living anywhere on the property. At this time he was occupying Tittensor and Lillieshall himself. The Duke did the only thing in his power—*i.e.*, to give the Duchess a lease of Tittensor for 21 years, at a rental of £200 per annum. When Lord Stafford found the Duke was determined to leave the Duchess a home near the old place, he made the following astounding proposal—namely, that he should join the Duke in granting the Duchess the use of Tittensor under three conditions—first, that Lillieshall should be secured to him for as long as the Duke lived; secondly, that it should be secured as a Dover House for his widow in case he predeceased the Duke;

and thirdly, that his allowance at that time, namely, £9000, should be increased. Of course, the Duke took no notice of this letter."

The narrative then deals with the circumstances that led to the action in the Scottish Courts for the disentanglement of a portion of the estates in Sutherland.

"In August the Duke took the Duchess for a driving tour round Sutherland. She had just sold her London house to Lord Salisbury for £10,000, and whilst at Loch Inver we were joking about what the Duke called

THE WINDFALL, AND HOW TO SPEND IT, and he suggested her feeling some land there and building villas as an investment. We did actually look at some sites with the factor, but the day was wet and cold, our visit was short, and we left without deciding on anything. Later on, at Tongue, the subject again cropped up, and, as it amused us and seemed a fairly good investment for a few thousands, we fixed on a site (at present included in the factor's own bit of land), and arranged to feu five acres to the Duchess, who was to spend £3000 or £4000 on a lodge, to be let with the shooting to the tenant, who lives at present at the hotel for want of a house. Of course in a sparsely populated district like the north coast of Sutherland it is of great benefit to the future of the estate to get feus taken and houses built; it brings money into the country, and opens it out to the public."

"The Duke's local solicitor was desired to draw up the ordinary documents necessary for giving a feu. The plans for a shooting lodge were got out, and the house was ultimately started building in March or April following. The first intimation we received of Lord Stafford's intentions was a letter from our solicitor informing us that he refused to give his consent to the granting of the feu to the Duchess. The Reay estate is the only part of Sutherland in which the heir in possession cannot give feus without the consent of the heir in entail."

"As the house was already half-built, the Duke was naturally very indignant at this opposition, springing, as it did, entirely from a wish to thwart and annoy us. During consultation with our legal adviser, the Duke found that he was able by the new laws of entail to disentail all or any of his estates by paying compensation to the next heirs."

"Meanwhile the Staffords had spread about freely the absurd story that the little shooting lodge at Tongue was to be a

DOWER HOUSE FOR THE DUCHESS, and this got into the newspapers, and was believed. The Duke decided to disentail a suitable place, and present it to the Duchess for a home in case of her being left alone. Then began all the vehement opposition to it; and the painful element of it being clearly demonstrated in open Court, their only hope of defeating the Duke's wish was by delay. It is unnecessary to explain in what way delay might serve them. The judge called attention to it. They tried by every possible expedient to hinder the matter; but Lord Low gave a decision in the Duke's favour in the Outer Court. An appeal was then made to the Inner Court, and here also we were victorious, three judges ruling unanimously that the Duke was perfectly in his right. They also refused to grant an appeal to the House of Lords. So bitter, however, was the opposition that the vanquished side actually announced their intention of taking it to the Lords without leave."

Grievances about the Duke being prevented from cutting down trees are narrated, and about having to pay everything for Lady Alix, though to Lord Stafford all her belongings, and many things of the Duke's were left. The quarrel thickened rather than cleared up, and it might have been as well if the painful details had been left to die in oblivion unrecorded.

"Times Jan. 23. 1891

"Times" March 9. 1893

Times OBITUARY. Jan. 23. 9

We regret to have to announce the death, yesterday, of EDWARD JOHN WARING, M.D., F.R.C.P., F.R.C.S., C.I.E., "widely esteemed" (as stated in *Contemporary Medical Men*) "throughout the East as a physician who had devoted a lifetime to the study of the medicinal resources of India, and who had done a great deal to alleviate the sufferings of our Oriental dependents." He was the sixth son of Captain H. Waring, R.N., was born at Tiverton, in Devonshire, on December 14, 1819, and spent his early life in the quaint old town of Lyme Regis, in Dorset. In 1841 he began his medical career as surgeon on board a ship proceeding to Sierra Leone, and, after passing his examination in the College of Surgeons, he settled in Jamaica as medical officer of health from 1842-43. He then, in the service of the Emigration Commissioners, visited Australia, Cape of Good Hope, Calcutta, Trinidad, and the United States. In 1847 he married Caroline, daughter of Mr. William Day, J.P., of Hadlow, Sussex, and settled at Uckfield, but, having sustained heavy pecuniary losses, he had to commence life afresh, and consequently accepted, in 1849, the appointment of assistant surgeon in the East India Company's service on the Madras establishment. He was then posted to Mergui, in the Tenasserim provinces, where he remained during the whole of the Burmese war. While at this station he compiled his excellent "Manual of Practical Therapeutics," wherein he sought to supply a deficiency which existed in most manuals of *materia medica*, by bringing together within a small compass the opinions and experience of the most eminent writers of modern times as to the real value of medicinal agents in the treatment of disease. This work, published in London in 1854, proved a great success, and has gone through four editions in England and one in America, where it is so highly appreciated that a copy has been attached to the headquarters of each regiment of the United States service. It was while stationed at Mergui that Dr. Waring, finding the supply of drugs running short, was first led to seek for substitutes in the bazaars and neighbouring forests. The volume then published as the result of his researches was the original commencement of Dr. Waring's investigations into the indigenous medical products of India. In 1853 he returned to India to take up the appointment of Residency surgeon at Travancore. There he found time to study the plants, &c., of South-West India, and, in addition to his professional works, to publish the results of his botanical and pathological inquiries. In 1856 Dr. Waring was appointed Durbar physician to his Highness the Maharajah of Travancore. In 1860 he published the first edition of his famous "Bazaar Medicines," which has become a household friend throughout the length and breadth of India, consulted in sickness by Anglo-Indians and natives alike. During the same period of residence at Travancore Dr. Waring was busy with the preparation of an "Encyclopædia Therapeutica." This *magnum opus* was still uncompleted at his death, but large portions of the materials amassed for it have been utilized by the editors of "Mayne's Lexicon" and by Dr. Waring himself in his "Bibliotheca Therapeutica." But Dr. Waring's untiring energy was not satisfied with professional and literary work. After the severe famine of 1860 he was instrumental in starting the first school in Travancore for the Palayar or slave caste, and the educational work then commenced has found warm supporters in the enlightened Rajahs of Travancore, the late reigning Prince being to the day of his death the devoted friend of his old physician. In 1863 Dr. Waring returned to England, and in 1864 he became F.R.C.S., in 1866 M.R.C.P., and in 1871 F.R.C.P. In 1865 he was appointed by the Secretary of State for India editor of the proposed *Pharmacopœia* for India, with a committee of eminent physicians to assist him. This valuable work was issued in 1868. In addition to this work he published in 1866 his "Tropical Resident at Home," in 1867 his "Cottage Hospitals," and in 1869 his *Bibliotheca Therapeutica*, "the out-

come of 20 years' hard work, in which "he brought together and arranged under several headings the titles of upwards of 10,000 works relating to therapeutics." To all these professional tasks Dr. Waring added religious and philanthropic work. He published the "Hospital Prayer Book," "Precious Jewels for Daily Use," and other small works of a devotional kind, and was particularly interested in the inmates of St. Giles's Workhouse. In 1870 he helped in establishing the St. Giles's Hospital Mission, and latterly he threw his gradually failing energies into the work of supplying the aged and hard-working poor with spectacles, and the last pamphlet he published was entitled "Spectacled Missions," which gives details of the method of managing such institutions. His professional experience, philanthropic ardour, and religious faith seemed all bound up together in this simple but touching weekly distribution in his house of aids to material and spiritual sight when his own failing eyesight prevented him from carrying on his labours away from home. In 1881 he received the—in the eyes of many who knew his work best all too small—recognition of his eminent services by the decoration of C.I.E.

Times March 9. 1893

**(Before LORD JUSTICE A. L. SMITH.)
THE PRESIDENT AND COLLEGE OR COMMONALTY OF
THE FACULTY OF PHYSIC IN LONDON V. THE
GENERAL COUNCIL OF MEDICAL EDUCATION AND
REGISTRATION OF THE UNITED KINGDOM.**

Judgment was given to-day in this action, which was brought by the plaintiffs (the Royal College of Physicians), claiming a declaration that they were entitled, at the date of the passing of the Medical Act, 1886, as a medical corporation, to grant diplomas under the Medical Acts in respect of medicine and surgery, and to hold such qualifying examinations in medicine, surgery, and midwifery as in the Medical Act, 1886, mentioned. The facts and arguments in the case were reported in *The Times* of the 3rd inst.

The learned JUDGE, after referring to the Medical Acts of 1858 and 1886, and the Royal Charter of 1518, and the Act of 1540 (32 Henry VIII., c. 40), and remarking that it was not disputed that the plaintiffs were legally qualified to grant a diploma in respect of medicine (the position taken up by the defendants being that the plaintiffs could not grant a diploma in respect of surgery), said,—Section 3 of the Act of 1540, relating to physicians and their privileges, is most important. It states:—"And forasmuch as the science of physick doth comprehend, include, and contain the knowledge of surgery as a special member and part of the same, therefore be it enacted that any of the same Company or Fellowship of Physicians may from time to time, as well within the city as elsewhere within this realm, practise and exercise the said science of physick in all and every his members and parts, any Act, statute, or provision made to the contrary notwithstanding." Here, it will be seen, is a direct recognition by statute that the science of physick comprehended, included, and contained the knowledge of surgery as a special member and part thereof, and that the statute granted to the Company or Fellowship of Physicians the privilege of practising such science of physick within the realm, notwithstanding any Act, &c., to the contrary. In my judgment, the statute shows that the word "medicina," which in English is equivalent to the word "physic," at the time, at any rate, embraced the general art of healing, whether by drugs or surgery, and was not confined to healing by drugs, as was argued on behalf of the defendants. It appears that from the earliest time down to recent date, the diploma granted by the plaintiffs and their predecessors to their Fellows and Licentiates was, as far as material, in the following form:—"Ego, A.B., Præsidentis hujus collegii admitto te ad medicinæ facultatem tam docendam quam exercendam." It is not denied by the defendants that the Fellows and Licentiates who obtained these diplomas have been accustomed to practise as general practitioners in medicine, surgery, and midwifery, or in either, as to them it seemed best. Sir Horace Davey, for the defendants, commenced with the charter of Edward IV., granted to the barbers, and traced down to the first

surgeons from this, through 3 Henry VIII. (1511), an Act purporting to relate to the appointment and examination of persons to act as physicians and surgeons within the City of London and seven miles round (though when the Parliament Roll was examined it was found that, as the Act originally stood upon the Roll, it applied solely to physicians, and that the word surgeon, for some reason or another, had since been interpolated); through 32 Henry VIII., c. 42, uniting the barbers and surgeons into one whole body corporate; through the charter of 5 Charles I., granted to the surgeons; and through 18 Geo. II., c. 15, whereby the surgeons became incorporated, and of which incorporation the Royal College of Surgeons is the direct successor, and through other Acts prior and subsequent thereto. He argued that from these documents, taken together with those cited by the plaintiffs, it appeared that there was the faculty of medicine as distinguished from the faculty of surgery, and he urged, and with force, that these two faculties from the earliest times had run upon totally different lines; and he urged that the physicians had nothing to do with surgeons. He pointed out, what I think was the fact, that although the College of Physicians from the year 1582 held lectures in surgery, called Lumbæian lectures, that although their examinations prior to 1835 were "in primis, comities in parte medicinæ physiologicæ; in secundis, in parte pathologicæ; in tertiis, in parte therapeutica" (which Dr. Liveing said was as much in surgery as medicine), and since that date embraced the obstetric art and principles of surgery, yet it was not till the year 1862 that the first real effective examination in surgery itself was made by the plaintiffs, who then called to their assistance Mr. Erichsen to examine, and since then they have ever had an eminent surgeon to aid them in the examination in surgery of those of their students whom they examined themselves. I should mention that since 1884 the plaintiffs, in conjunction with the Royal College of Surgeons, have held joint examinations of those students who had commenced their studies since that date, and these examinations still continue. Sir H. Davey argued that the construction placed by the Solicitor-General upon section 3 of 32 Henry VIII., c. 40, was erroneous. I incline to the opinion that Sir H. Davey placed the correct construction upon this section when he insisted that the privileges granted by it were confined to the "company or fellowship of physicians," which he read as equivalent to "commonalty or fellows" of that body; but, be this as it may, it does not affect the point as to whether the plaintiffs could grant a diploma in medicine and surgery. I think, too, that he was correct when he said that surgeons and physicians had run in distinct lines from the earliest time. But this is not what I have to decide. The point is, Were the plaintiffs a medical corporation in 1886 legally qualified to grant a diploma in respect of medicine and surgery? The Solicitor-General's reply to the argument of Sir H. Davey appears to me conclusive. He said, "For the purposes of this case I accept Sir H. Davey's reading of the section, for he admits that the plaintiffs could grant a diploma to their commonalty or fellows to practise in medicine and surgery, and (said the Solicitor-General) that is all that is required, for this brings the plaintiffs within the exact terms of the Act—viz., a medical corporation legally qualified to grant diplomas in respect of medicine and surgery." He said whether physicians and surgeons ran in different grooves did not affect the point to be determined. In my judgment the Solicitor-General is right when he says, once get the corporation legally qualified to grant the diploma, and then they are the persons who are designated by the statute to hold the examination. This argument appears to me to be unanswerable. It has been established that the plaintiffs were at the date of the passing of the Act of 1886 a corporation legally qualified to grant diplomas in respect of medicine and surgery, and that, in my judgment, concludes the case. For these reasons, in my opinion, the plaintiffs are right, and are entitled to judgment and the declaration asked for, and they must have the costs of this action.

The Solicitor-General (Sir John Bigby, Q.C.), Sir R. E. Webster, Q.C., Sir Arthur Watson, Q.C., and Mr. Roscoe appeared for the plaintiffs; and Sir Horace Davey, Q.C., and Mr. Muir Mackenzie for the defendants.

A judgment was given yesterday, by Lord Justice A. L. SMITH, in the Queen's Bench Division, which establishes the right of the Royal College of Physicians to confer a licence or qualification in surgery; and the whole story furnishes a curious illustration of the unexpected developments which may sometimes arise out of ancient charters and statutes. Until a comparatively recent time, the college was known to the public as an association of physicians in the earlier sense of the word—that is to say, of gentlemen who dressed in sober black, who carried gold-headed canes, whose fees were such as to deprive any but well-to-do patients of their services, who disdained to take any part in the supply of the remedies which they prescribed, who confined their attention strictly to the class of maladies commonly known as "medical," in contradistinction to those which were called "surgical," who neither possessed nor desired operative skill, and who were wont to assemble together, on certain stated occasions, in order to hear addresses which were usually composed in Latin of a very high standard of elegance. Surgeons were once the very humble servants of physicians, performing operations only under their direction and control; but came in time, as the science and art of surgery underwent gradual improvement, to speak of them somewhat scoffingly as "their unhandy brethren." It is said that an introductory address was once given by Mr. HEY, at the opening of the Leeds School of Medicine, in which he dwelt long and forcibly upon the mental and physical qualities necessary to the formation of an accomplished surgeon, spoke of the not infrequent conditions in which the life of the patient may hang upon the presence of mind, the courage, and the dexterity of an operator, and went on to address a solemn warning to any hearer who might feel doubtful of his own fitness to do everything that could be required in any or every professional emergency by which he might be confronted. "If there be 'one among you, gentlemen,'" continued the lecturer, "who feels that in the presence of 'urgent danger his judgment might be weakened, or that his hand might become unsteady, or that his presence of mind might fail, I can only say that he will be well advised to shrink, while there is yet time, from encountering difficulties which he is not fitted by nature to overcome. My advice to such an one would be unhesitating. Let him become a physician."

In the days thus referred to, the College of Physicians included three orders of men—the fellows, the licentiates, and the extra-licentiates. The licentiates were all, or nearly all, medical graduates of a University, from which circumstance they derived the title of doctor; and they had been authorized by the College to practise their profession anywhere in England. The extra-licentiates had obtained the same authorization, except for the metropolitan district. The fellows, who were elected from among the licentiates, were the most essential part of the corporation, the proprietors of the College, and the dispensers of the privileges which it was empowered to bestow. All three classes were equally "physicians" in the old sense, and none of them were numerous. Within

the last few years several of these arrangements have been greatly changed. The fellows retain their original position, but the licentiates and extra-licentiates have been formed into a single body under the name of "members," and the "extra" licence has been abolished. A new order of licentiates has been established, who are not physicians in the old sense of the word, but who are intended, or at least permitted, to be general family practitioners, dealing with medicine or with surgery at their pleasure and supplying medicines to their patients if they like. The licensing of practitioners of this class, as far as the medical side of the healing art was concerned, was for many years in the hands of the Society of Apothecaries, and, as far as the surgical side was concerned, in those of the College of Surgeons. Even prior to the Medical Act of 1858, by which many important alterations were made in the status of the medical profession, it was the ordinary custom for men who intended to engage in general practice to take what was called "a double qualification"; that is to say, to go to the College of Surgeons for a diploma in surgery and to the Society of Apothecaries, or, after a certain date, perhaps, to the College of Physicians, for a licence to practise medicine. Either licence was given after examination, but the two examinations were of different character, each being restricted to one branch of medical knowledge. By the Act of 1858 a man was entitled to register as being legally qualified on a single qualification; but the double qualification was required by the Poor Law Board and for many public and private appointments, so that it was almost invariably taken. At length, in 1886, an Act was passed providing that no one should be placed upon the Medical Register as qualified except after an examination in medicine, surgery, and midwifery, so that the single qualifications ceased to be available; and providing also that corporations which then gave only a single qualification might combine with other corporations to give a complete one, or might obtain from the Medical Council examiners in the subject which did not fall within the ordinary scope of their work. The College of Physicians combined with the College of Surgeons to form a "conjoint" examining board and to erect on the Thames Embankment a building hardly worthy of the site, in which the new examinations are conducted. The Society of Apothecaries obtained examiners in surgery from the Medical Council; and both these bodies are now able to confer a title to register upon those who pass their examinations. The College of Physicians, however, had always claimed a right to confer licences in surgery; and had only waived this right, or suffered it to remain in desuetude, as a matter of convenience. In the case of a very small number of men, who would otherwise have fallen between two stools, the College determined to exercise it, and gave surgical as well as medical licences, the holders of which sought to register by reason of them. Their application for this purpose was rejected by a narrow majority of the General Medical Council; and the College of Physicians had then no alternative but to appeal to the law. Their contention was based

upon the construction of charters and statutes in which surgery was treated as an integral part of medicine, and judgment was pronounced in their favour.

The effect of the decision will probably not be revolutionary. There is no immediate prospect that the President of the College of Physicians will be invited to assume the position of surgeon to a great hospital, although his right to teach and practise surgery has been rendered indisputable. The only thing which seems to be in any way jeopardized by the decision is the stability of the "conjoint board." If friction were to arise between the two constituent corporations, the College of Physicians could cut the College of Surgeons adrift, and would still be able to give to its licentiates a complete legal and registrable qualification, while the College of Surgeons would probably not be able to give a licence in medicine or midwifery, and might be compelled either to combine with the Society of Apothecaries, or to do what that society has already done—obtain auxiliary examiners from the Medical Council. It is probable that the interests of the two Colleges will be sufficient to maintain the alliance between them. Each possesses appliances and *personnel* in which the other is deficient; and they can work together far more easily and more profitably than would be possible if they were separate. As a matter of fact, the Fellows of the College of Physicians are mostly men who have turned their backs upon surgery, and who, while they retain a knowledge of its principles, and of the bearing of those principles upon their own more special work, have but slender acquaintance with its details or its practical applications. They would therefore have to go outside of their own body for surgical examiners; and we believe it is a fact that the surgical part of the examinations was conducted, in the few cases which occasioned the recent litigation, by Fellows of the College of Surgeons. The Fellows of the College of Physicians were clearly right in defending their privilege; they might be very wrong, or at least very unwise, if they were to attempt seriously to exercise it. The Medical Council were also right in forcing a disputed claim to a legal decision; but we may hope, the decision having been once obtained, that it may remain a matter of legal or antiquarian curiosity. It could hardly be for the public advantage that it should now be brought forth from the recesses of ancient history, and applied to the changed conditions of our own time.

"Observer" May 21 '93.

Sir Edward Grey's recent answer respecting compulsory retirement in the Diplomatic and Consular Services, coupled with preceding pronouncements on the same subject in connection with other departments, casts a striking light on the ineffectiveness of the Order in Council of two years ago enforcing the retirement of Crown officials at sixty-five. The Treasury Minute accompanying and interpreting the decree of the Privy Council shows that it was intended to apply to every department and every grade in the public service; but a Treasury Minute does not make law, and the Order on examination proves to be so loosely drawn as to exclude a very large proportion of officials. It refers, for instance, only to the "Civil Service," and the Foreign Secretary appears to be right in his contention that this does not include the Diplomatic Service, whose distinctive character is clearly shown in the Diplomatic Salaries Act of 1892. The attempt, however, to place the Consular Corps in the same category does not seem justifiable, the same Act speaking of transfer from "the Consular or any other branch of the Civil Service of Her Majesty." In the course of the arguments of the Foreign Office, stress is laid upon the fact that the Ridley Commission, upon whose recommendations the Order in Council is based, issued a separate report upon the Diplomatic and Consular services. If there be anything in this, the "65 rule" does not apply to the Revenue offices, two of these being favoured with a separate report, while the Post Office was not dealt with at all. Their estimates, too, are not included with those for the Civil Service. Then, the Treasury is at variance with the heads of the legal and other departments who refuse to have anything to do with the Order in Council, and, finally, that document applies only to "officers drawing salaries in excess of those of the Second Division"—that is, above £350 a year. As matters therefore stand now, each department is, owing to the lack of a supreme authority on Civil Service questions, deciding for itself whether it is or is not outside the operation of the Order in Council, and while an Under-Secretary of State may be thrust into retirement at sixty a doorkeeper may remain in office until he is decrepit. Clearly there is need for fresh regulations.

"Times" May 25. '93

THE RETIREMENT OF CIVIL SERVANTS.

A Treasury minute, dated April 17, stating the circumstances under which certain Civil servants have been retained in the service after they have attained the age of 65, has been issued as a Parliamentary paper.

As stated in their said minute of April, 1892, the Lords of the Treasury, in dealing with applications for prolongation, have considered that there were three main grounds upon which the retirement of an officer at 65 might be detrimental to the interests of the public service.

1. When the number of officers in a department above the prescribed age is such that their simultaneous removal would cause grave inconvenience.
2. When an officer possesses peculiar qualifications which are essential to the performance of the duties of his office, and which it would be difficult to replace by a fresh appointment.
3. Where an officer has been intrusted with the execution of a particular duty which is approaching completion, and it is found that the transfer of the work to another officer who is necessarily less familiar with it would be attended with inconvenience.

The following return of officers whose service has been temporarily prolonged beyond the date at which they respectively attained the age of 65 has been prepared upon the above principles:—

CLASS I.
Nil.

CLASS II.

The following officers possess peculiar qualifications which are essential to the performance of their duties, and which it would be difficult to replace by a fresh appointment:—

Name.	Department and Office.	Age.	For how long continued.
F. J. Brodie	Stationery Office: Superintendent of Printing	67	Further extension to one month after close of Session of 1893.
J. E. Rich	Postmaster	67	Further to end of 1894.
W. H. Perrin	Valet Office: First-class Valet, Scotch Board of Supervision	65	To December 31, 1892
J. Clarke	Senior Clerk	65	To December 31, 1893
Professor J. Englaug	Ireland, Queen's College, Cork	65	Two years to December 31, 1894
*Professor Allman	Ireland, Queen's College, Galway	67	Till he is 70
A. E. Fletcher	Local Government Board: Chief Inspector of Alkali Works	65	To June 1, 1894
Sir W. H. Melville	Inland Revenue: Solicitor	65	To September, 1894
Sir A. K. Stephenson	Treasury: Solicitor	65	Two years to October 15, 1894
Sir J. Stokes	Foreign Office: British Director of Suez Canal Company	67	To June 17, 1895
J. Wheeler	Post Office: Superintendent, Sorting Office	65	To October 9, 1893
M. McMahon	Pay Office: First Class Clerk	66	To July 31, 1893
F. H. Whympere	Home Office: Chief Factory Inspector	65	To December 31, 1893
CLASS III.			
E. Best	Science and Art Department: Resident Geologist	68	Further extension of three months to March 31, 1893
W. Ellis	Admiralty: Superintendent, Royal Observatory	65	To December 31, 1893
Dr. W. Ogle	Registrar-General's Department	65	To completion of census work in 1893
R. F. Sketchley	Science and Art Department: Home Office	65	Further extension to December 31, 1893
*Rev. H. A. Taylor	Prisons Department	65 in Nov. 1893	To closing of Chatham Prison, then impending
*J. J. Wilson	Irish Registrar-General's Department	65	To completion of census work in October, 1892
*Sir F. Burton	SPECIAL CIRCUMSTANCES. National Gallery: Director	76	To expiration of re-appointment for five years from March, 1892

*The four names thus marked were accidentally omitted from the Return to March 31, 1892.

"Observer" June 4. '93

NAVAL AND MILITARY INTELLIGENCE.

It is understood in official circles that the authorities are prepared to concede practically all the demands made by the Colleges of Physicians and Surgeons on behalf of the army medical officers. These demands refer in the main to the grant of combatant rank, the command of the Medical Staff Corps, and an alteration of the conditions of foreign service, the spells of which are considered too long. About the last there is little difficulty, the matter being a merely administrative one, and the formation of the medical staff and their subordinates into a distinct department is not strongly opposed by anybody, so that the only subject of contention is that concerning titles. The combatant branch of the Army has, in the past, almost bitterly resisted the doctors on this question; but since the concession of combined medical and military titles, it has been felt that complete surrender was inevitable, and, indeed, advisable, the principle for which the doctors contended having been admitted, while the ponderous prefix then sanctioned is highly inconvenient. In the near future, therefore, the medical officers, like those of other non-combatant branches of the Army, will be simply styled captain, major, &c.

NOTABLE MINISTERS AND MEN OF
THE NORTH.

No. IX.—THE THIRD DUKE OF
SUTHERLAND (CONCLUDED).

Our former article on the late Duke of Sutherland gave a brief account of his Grace's generous aid towards the material advancement of the Highlands. Before resuming the thread of our narrative, we may here premise that it was stated, and the statement was fully borne out by the facts adduced, that the late Duke's absorbing interest in railway and engineering works had much to do with the wonderful development of the railway system of the North of Scotland. We showed that he spent £116,000 upon the Sutherland line; subscribed £60,000 towards the Caithness railway; and held stock to the value of £65,000 in the Highland Railway. The total of his Grace's monetary interest in the railways of the North of Scotland amounted to £301,000. Our former article also bore reference to the vast work of reclamation of land on the shores of Loch Shin, which was undertaken, at great expense, by his Grace, with the desire to provide profitable farms for smaller tenants—a work which the force of agricultural circumstances rendered almost nugatory in its effect. This naturally brings us to the consideration of other similar undertakings of the late Duke.

In 1869 there was a rush of people of the digging fraternity to Kildonan, where gold had been discovered. The county at once became famous as a gold producer. It came about in this wise. An old digger, who had returned from Australia, was struck by the conformation of rock near the burn at Kildonan which flows into the Helmsdale river. Setting to work, the digger came upon flecks of gold in the wash from the burn. Many men took up the search, and the banks of the streams were the scene of unwonted bustle and industry. Gold was found, but it was so small in quantity that it did not repay the cost of labour. As it happened, the Duke was the greatest loser in the matter. The tenants of the sheep farms of the neighbourhood made claims upon him for the damage caused by the diggers, and the Duke had to pay. Soon afterwards, the discovery of coal was made at Brora. It was not a seam of the true coal measures, but was a later deposit of what is scientifically known as lignite, or, in other words, incompletely mineralised coal. The supposed coal bed was worked at the Duke's expense, and, in connection with it, a brick manufactory was started, but both industries had ultimately to be given up. These, then, were the principal features of the policy of improvement which was so actively pursued during the late Duke's life. We may be permitted to quote a few more figures, which throw the subject into bold relief, before passing on to the social side of his Grace's life at Dunrobin. Sir Arnold Kemball stated before Lord

Napier's Highland Commission, that during the thirty years from 1853 to 1882, the Dunrobin management expended the enormous sum of £1,295,000, on estate works. The outlay did not yield even one cent. per cent. return; in fact there was a total deficiency of £254,000, to which would fall to be added the household and other expenses of the Duke's life at Dunrobin. Of the above sum, £254,900 was spent upon the reclamation works, and £637,407 upon the other public undertakings. During the ten years ending December 1891, the estate expenditure amounted to £100,057, and £10,000 was spent upon improvements for the benefit of the Duke's smaller tenantry. Considering the nature of the various undertakings, a very great proportion of the monies must have gone into the pockets of the labouring and working classes, bringing them much comfort and pleasure. Their recognition of that fact has, as we already remarked, been frequently demonstrated. Truly, the whole tale would form a striking volume in the history of the material advance of the Highlands.

The social life at Dunrobin Castle was a subject of annually recurring interest to the Sutherland people; often, indeed, to everyone in the North of Scotland. Not only were the Sutherland family distinguished in themselves, but their troops of guests included many of the highest rank and renown. Her Majesty the Queen paid a memorable visit to Dunrobin; the Prince and Princess of Wales were also visitors; and there were many others to be seen there in whom public interest was centred on account of their personal distinction. The Duke and Duchess of the time were lavish in their hospitality. We should have noted that the late Duke married Anne, the only child of John Hay Mackenzie of Cromartie and Newhall, in 1849. She was afterwards created Countess of Cromartie in her own right. For many years she fulfilled the duties of hostess at Dunrobin with grace and dignity. Her death occurred, to the regret of all, in 1888. Visitors—whether high or low, patrician or plebeian—received a kindly welcome at Dunrobin Castle. All were allowed to roam about the lovely grounds, the sweet, grassy parks, and the velvety lawn, shaded by beautiful trees. There were no staring notices to "keep off the grass." On the days of the annual review of the Sutherland Rifle Volunteers a piece of ground was reserved for their evolutions, but the public roamed at will over the rest. When her Majesty visited the Castle, a certain amount of State regulation had to be maintained, but it was toned down to the mildest degree. When the Prince and Princess of Wales were present in the Castle there was absolutely nothing of the kind at all. Dunrobin Castle was simply a kindly, country mansion, the occupants of which were on the best of terms with everybody. They were amongst their own people, and would not dream of framing rules to regulate the manner of intercourse between neighbours. Before the late Duke's time, royalty's visits to the Highlands were extremely rare.

There had been no sovereign as far north as Inverness since the visit of Queen Mary in 1562. A Prince of Wales had never been seen in the North. When the Duke announced, in 1866, that the Prince of Wales and his charming wife were about to visit Dunrobin, a shout of enthusiasm literally broke out all over the northern counties. Everyone was in the highest stage of delight; even so staid and level-headed a man as the

late Mr Murray of Geanies dropped into poetry over the matter. He penned a number of stirring stanzas, the dominant note of which was struck in the opening lines—

"Awake the heart of Sutherland
From Bonar-Brig to Farr, lads;
A welcome to our heather-land,
From corrie, strath, an' scaur, lads.
Hurrah, lads! hurrah, lads!
They're comin' after a', lads;
The royal pair, we'll fill the air
Wi' shouts o' joy for a', lads!"

The railway did not extend beyond Bonar-Bridge at the time, and the Prince and Princess of Wales had to drive from Bonar to Dunrobin, going by way of Dornoch. They received the warmest possible welcome. Arriving on the 24th September, they stayed for eighteen days. They had plenty of fishing, shooting, and driving, and entered heartily into the life of a typical Highland home. The royal pair were amongst the spectators at the volunteer review, and they attended the tenantry ball, entering into the festivities of the occasion with characteristic zest. Subsequent visits were paid to Dunrobin by the Prince and Princess, the last one being in 1876, when they also opened the industrial exhibition at Thurso.

Her Majesty the Queen spent a week at Dunrobin in September 1872. She travelled by rail from Balmoral all the way to Dunrobin Station, and most of our readers can recall the great demonstrations of loyalty which greeted her at almost every station on the route. Her Majesty spent the time according to her quiet and simple mode of life. She inaugurated a memorial in Dunrobin grounds to her old friend, the late Duke's mother, and she visited Dornoch Cathedral and the tombs of the Sutherland family. Her Majesty was attended by John Brown, whose arrangements for the Queen's comfort were, as usual, carefully and completely planned. John was a faithful and attached servant, and was admired as such by all observers; but his broad, Aberdeenshire dialect was a subject of curiosity and amusement to the Highlanders. The stories told of his brusqueness were very funny, and were probably true enough. Some of us can recall the blunt broad Scotch in which he informed the picnic party at Loch-Brora that the Queen (who was present) would not be allowed to take a cup of tea. John and his royal mistress are remembered, with pleasing associations, in the Sutherland country. It would be futile to attempt to give a list of the distinguished personages who might be seen in the autumn at Dunrobin, but we may here remark that amongst the more frequent and familiar of the visitors were Mr DeLancey, the great editor of *The Times*, and Dr Russell,

foremost of war correspondents. At Stafford House, the Duke's splendid town residence, with which this article is not immediately concerned, Garibaldi, the Italian patriot, was entertained in 1864, and Mr and Mrs Gladstone were occasional visitors.

Those brilliant social seasons at Dunrobin were, we venture to believe, amongst the happiest days of the late Duke and his family. The present Duke, whom Sutherlanders regard with peculiar fondness, was the popular Captain of the Rogart Company of Volunteers at the time. His Grace knew the members of the Company familiarly, and was on excellent terms with all and sundry. We cannot help remarking that the fourth Duke has inherited the generous instincts and the affable sincerity of the third, and is withal a fine young fellow, who, true to his name, is destined to be a power for good in the Highlands. The late Duke and Duchess were generally present, with the members of their family, at the Dunrobin reviews. They were to be seen enjoying pleasant chats with the visitors of the day. Lady Florence had a bright smile and kindly word for everyone. Lady Alexandra was a pretty and attractive girl, and Lord Tarbat—now the Earl of Cromartie—was a genial young man. He inherited the Cromartie title and property from his mother, who was a direct descendant of the last Earl of Cromartie, whose share in the rising of '45 cost him his position. Both title and property were restored by the Queen to the late Duchess, from whom they descended to Lord Tarbat, her second son. She was an earnest and religious woman, her favourite preacher being Dr Cumming, London, who was invited to preach before the Queen at Dunrobin in 1872. The late Duke's second marriage to the lady who is now Dowager Duchess, was a disappointment to the Duke's friends in the North, but they never failed in their respect for his Grace, who was regarded until the day of his death as an excellent landlord, sincerely interested in the welfare of the people. Towards the end he took a special pleasure in improving the lot of his crofter tenants, and he gave much assistance in developing the fishing industry on the North-east Coast. One of his last public acts was to lay the foundation of Helmsdale Harbour a week or two before his death. In money and property he contributed £12,000 towards the cost of the harbour. Thus, from the beginning to the end of his eventful career, the public weal lay near to his heart.

The present Duke of Sutherland came of age in 1872, and many people will remember the hearty rejoicings with which the event was celebrated in Sutherlandshire and Staffordshire. His Grace's English tenants vied with the Highlanders in their demonstrations of enthusiasm. At Trentham Hall the celebration was on a magnificent scale. Over a thousand people met to toast the young nobleman's health. A brilliant company sat down to dinner in the evening, and the toast was given with manly feeling by the Prince of

Wales, with whom his Grace has always continued on terms of warm friendship. It would be difficult to exaggerate the kindness and sympathy which have subsisted between the Duke and his Sutherland tenantry. Long ago, in the days of his boyhood, "the Marquis" was beloved of all, and the happy feeling has not abated in warmth now that he is the Duke and their landlord. It is interesting to recall the fact that, in 1865, when the crofters' agitation was at its height, he was elected M.P. for the county. Had he sought re-election, we believe that he would not have done so in vain. In 1884 the young Duke married Lady Millicent St Clair Erskine, daughter of the Earl of Rosslyn. The charming and accomplished young lady identified herself from the first with the life and welfare of the Sutherland tenantry. She infused fresh energy into the excellent work of the Home Industries Association of the County, work which was established by the late Duke's mother, some fifty years ago, and which was fostered by the mother of the present Duke. The present Duchess's efforts to develop these industries were attended with so much success, bringing a great deal of material benefit to the poor women workers of the Bens and straths, that the scope of the work has been widely extended in the Highlands, other ladies generously helping to that end. Lady Lovat, in Inverness-shire, and Lady Mackenzie of Gairloch, in Ross shire, have taken the lead in extending the operations of the Association, whose annual exhibitions and sales, in London and Inverness, have sufficiently shown the substantial benefits that are bestowed, by their means, upon the Highland people.

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