DEPARTMENTAL COMMITTEE ON SIGHT TESTS.

MINUTES OF EVIDENCE

TAKEN: BEFORE THE

DEPARTMENTAL COMMITTEE

ON

SIGHT TESTS

ANT

APPENDICES.

Presented to both Houses of Parliament by Command of His Majesty.



LONDON:

PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

To be purchased, either directly or through any Bookseller, from WYMAN and SONS, Lad., Ferter Lane, E.C., and 32, Abindon Street, S.W.; or OLIVER and BOYD, Tweeddale Court, Edinburgh; or E. PONSONBY, Lad., 116, Grafton Street, Dublin.

PRINTED BY
EYRE IND SPOTTISWOODE, LID. EAST HARDING STREET, E.C.,
PHINTERS TO THE KING'S MOST EXCELLENT MAJESTY.

1912.

FCM: 6319-1

Price 2s.

GOVERNMENT PUBLICATIONS

Government Publications (with the exceptions mentioned in paragraphs 2 to 6) tan be bought either directly or through any bookseller from—
WYMAN AND SONE LYD. Fester Lane, London, E.C.; or

OLIVEE AND HOVE, Tweeddale Court, Edinburgh, or E. Porsoney, Lin., 116, Crafton Street, Hublin.

E. Poisoney Lan., 116. Crafton Street, Linblin.

Booksellein and the accredited Agents of Kree Public Libraries, are entitled to a discount of 25 percent from published prices.

2. Hydrographical Publications of the Admiralty are sold by ID Porter, 145 Minories Libration, E.O.

3. Patent Office Publications are said at

The Patent Office, 25. Southampton Buildings, Chancery Lane Lividon, W.O.

(N.B.—Classified Abridgments of Patent Specifications are sold also by Wymon and Sons List

1. Ordinance Survey and Geological Survey Publications can be purchased from

The Director General of the Ordinance Survey Bouldampton or

The Superintendent, Ordinance Survey Dubling on

Agents in most of the chief transport of the Director Research of the chief transport of the Director Research of the chief transport of the Director Research of the chief transport of the Chief tran

Agents in most of the chief rowns in the United Kingdom.

(N.B.—Small Scale Maps are as a rule procurable of Railyny Bookstalls in England and Wales).

The Tournal of the Board of Agriculture is galuidized minibility by the Board at 4. Whitehall

6. The London Baxette is published to Tuesday and Friday Symings by Wyman and Sons Ltd. Price 18

The following is a list of some of the more important Parliamentary and Official Publications recently as us

Public General Acts, Lived and Personal Acts, 1912. Austroutpunk Education and Beseinon, Report for separate Acts at varying prices. on the distribution of Grants, 1970, 1115 [Cd. 6025)]

Army Act—Consolidation—enclyding symptoments to

1911 Ills each Concination Trade Disputes Report 1911,

Statutory Rules and Orders revised. Statutory Rules
and Orders, other than those of a Local, Personal. Street Accidents Caused by Venious 1911,
or Temporary Character, in force on December 31. H.C. 80.

1903 Vols I to XIII 10s. each Tubergunosis, Departmental Committee Intering Statutory Rules and Orders in force on 31st. December 31.

Statutory Rules and Orders in force on 31st. December 31.

Statutory Rules and Orders in force on 31st. December 31.

Votes and Proceedings of the House of Con-mons: Id per 8 pp. Subscription, Bession 1912, 30s. Historical Manuscripts Reports of the Royal

Commissioners, In course of issue

FTATISTICAL ABSTEAUT, UNITED KINGLOW, YEARS
1896 to 1910. [Cd. 5841.]

1896 to 1910. [Cd. 5841.] 1. 9d. Government of Ireland Blue. No. 186. 5d., Do do Financial Provisions. [Cd. 6154.]

LORDON TRAFFIC BOARD REPORT: 1911 [Cd:5972]

Rates of Import Duties Levied in Foreign COUNTRIES UPON THE PRODUCE AND MANU-FACTURES OF THE UNITED KINGDON (Cd. 5754)

AGRICULTURAL STATISTICS, GREAT BRITAIN: 1911 Acreage and Live Stocky Produce of Crops. [Cd. 6021. 6056.7

INDUSTRIAL PROPERTY AND MERCHANDISE MARKS.

Percha. [Cd. 6022,] ± (6)5200

Is Octoverative Societies Industrial and Agricul

| Public General Session 1911 | With India, Tables | Torgan Livity | Randock - the port with Statistical | Torgan Livity | Randock - the port with Statistical | Torgan Livity | Randock - the port with Statistical | Torgan Livity | Randock - the port with Statistical | Torgan Livity | Randock - the port with Statistical | Torgan Livity | Randock - the port with Statistical | Randock - the port | Ra

1903. Vols I to XIII

Slautory Rules and Orders in force on 31st. December 1909. Index to:

PARLIAMENTARY DENTES: House of Lords and House of Commons; each duly part 3d. also issued in bound volumes with Index.

MINUTES OF PROCEEDINGS OF THE HOUSE OF COM.

TOBEROUROSIS, Departmental Communities. Report of Report of Commons; each duly part 3d. also issued in bound volumes with Index.

MINUTES OF PROCEEDINGS OF THE HOUSE OF LORDS.

NATIONAL INSURANCE Outworkers Committee Report 14, 200.

POTES AND PROCEEDINGS OF THE HOUSE OF COM.

Preservation of Ancient Monuments in Tokeign Gountries: Reports showing systems, [Co. 1200.]

Eaunings and Hours of Labour, United Kingdon Assurance Companies: Statements for 1911; H.C. Exquiry Hailway Service Report Od 5053 31 of 1611 4. 37
26.3d Meronary Shirting Tables of progress 1880-1910
Statistical Abstract, United Kinddom, Years 10d 5189.

ARMY REVIEW Vol. II. No. 2. April 1912. In ARMY SERVICE CORPS Memorandum No. 25. 112. CLOTHEO REGULATIONS, Parts 1. II. and III. Communication H.M. Residus Anni from Ist April 1912). Short Guide to the surrous ways of obtaining a ; &c., &c. Director. No. 3. Instructions for using the ld. ELECTRICAL COMMUNICATIONS FIXED. Instructions as to ~ 1912 ,

Electricity. Noics on 1911. ____1, 3d., Equipment: Regulations Part 3 Territorial Force), Sec. X., Engineer Details 1912 3d. ESTADEISHMENTS. WAR. Part I., 1911-12.
Amendments May 1912.



DEPARTMENTAL COMMITTEE ON SIGHT TESTS.

MINUTES OF EVIDENCE

TAKEN BEFORE THE

DEPARTMENTAL COMMITTEE

0N

SIGHT TESTS

AND

APPENDICES.

Presented to both Houses of Parliament by Command of His Majesty.



LONDON:

PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

To be purchased, either directly, or through any Bookseller, from WYMAN AND SONS, Ltd., Fetter Lane, E.C., and 32, Abingbon Street, S.W.; or OLIVER AND BOYD, TWEEDDALE COURT, EDINBURGH; OF E. PONSONBY, LTD., 116, GRAFTON STREET, DUBLIN.

PRINTED BY

EYRE AND SPOTTISWOODE, LTD., EAST HARDING STREET, E.C. PRINTERS TO THE KING'S MOST ENCELLENT MAJESTY. 1912.

[Cd. 6319.]

Price 1s. 9d.

CONTENTS.

ALPHABETICAL LIST OF WITNESSES	-	-	-	-	-	-	-	-	-	Pac i
MINUTES OF EVIDENCE	-	-	-	-	-	-	-	-	-	1
CONTENTS OF APPENDICES	-	-	-	-	-	-	•	•	-	126
APPENDICES	-	-	-	-	-	-	-	-	-	127

立公衆衛生院附属図書館
National Institute of Public Health

DEPARTMENTAL COMMITTEE ON SIGHT TESTS.

ALPHABETICAL LIST OF WITNESSES.

SIR WILLIAM DE W. ABNEY, K.C.B., F.R.S. CAPTAIN H. L. ALLEN MR. HENRY ARCHER Mutual Insurance and Protecting Company, Limited; Secretary of the Steam Fishing Owners' and Underwriters' Joint Arbitration and Navigation Committee; Secretary of the Steam Fishing Owners' and Underwriters' Joint Amalgamated Committee for the settlement of Salvage and Towage Awards. Medical Inspector to the Peninsular and Oriental Steam Navigation Company. President of the Mercantile Marine Service Association Yachtsman; colour-blind	of the
CAPTAIN H. L. ALLEN MR. HENRY ABCHER Manager and Secretary of the Hull Steam Trawlers' Mutual Insurance and Protecting Company, Limited; Secretary of the Steam Fishing Vessel Owners' and Underwriters' Joint Arbitration and Navigation Committee; Secretary of the Steam Fishing Owners' and Underwriters' Joint Amalgamated Committee for the settlement of Salvage and Towage Awards. Medical Inspector to the Peninsular and Oriental Steam Navigation Company. President of the Mercantile Marine Service Association Yachtsman; colour-blind Member of the Committee of Management of the North of England Steamship Owners Association; Member of the Local Marine Board at South Shields; Member of the Tyne Pilotage Commission. MR. W. T. Dunlin MR. W. T. Dunlin CAPTAIN G. P. CUTTING Member of the Committee of Management of the North of England Steamship Owners Association; Member of the Tyne Pilotage Commission. Secretary to the Joint Arbitration Committee and Chairman of the Navigation Board at Grimsby. Beit Medical Research Fellow 388—	1289,
Dr. Arnold Chaplin - Medical Inspector to the Peninsular and Oriental Steam Navigation Company. Captain Corkhill - President of the Mercantile Marine Service Association Yachtsman; colour-blind - Pachtsman; colour-blind - Pac	3031
CAPTAIN JAMES CRAIG, M.P. CAPTAIN G. P. CUTTING Member of the Committee of Management of the North of England Steamship Owners Association; Member of the Local Marine Board at South Shields; Member of the Tyne Pilotage Commission. MR. W. T. DUNLIN Secretary to the Joint Arbitration Committee and Chairman of the Navigation Board at Grimsby. Beit Medical Research Fellow 388—	
MR. W. T. DUNLIN Secretary to the Joint Arbitration Committee and Chairman of the Navigation Board at Grimsby. DR. F. W. EDRIDGE-GREEN - Beit Medical Research Fellow 3SS—	1306
DR. A. FREELAND FERGUS - Ophthalmic Surgeon to the Glasgow Eye Infirmary - 2172— DR. H. LINDO FERGUSON - Ophthalmic Surgeon; adviser to the Union Steamship Company of New Zealand.	
MR. A. R. GALLOWAY Ophthalmic Surgeon to the Eye Institution of Aberdeen Marine Superintendent to Messrs. MacVicar, Marshall and Company; nominated by the Chamber of Shipping at the request of the Liverpool Shipowners Association.	
"A GENTLEMAN" Colour-blind 2063— MR. W. GRIEVE Headmaster of the Aberdeen Navigation School - 916— DR. KARL GROSSMANN - Ophthalmic surgeon 1833— CAPTAIN J. W. HARRIS - Marine Superintendent to the Booth Steamship Com- 3032—	988 1908
pany, Limited. CAPTAIN J. M. HARVEY Principal Examiner of Masters and Mates to the Board 144	
of Trade. Sir Walter Howell, K.C.B. Mr. Tennyson Large Deputy Superintendent of the Mercantile Marine Office and Examiner in Sight Tests at Great Yarmouth.	
CAPTAIN C. L. A. LECOUSTRE - Examiner of Masters and Mates at Liverpool - 989—I Deputy Superintendent and Examiner in Sight Tests at Tilbury.	
Dr. George Mackay Ophthalmic surgeon 1659—	
MR. C. DEVEREUX MARSHALL - Ophthalmic surgeon 2010—Chairman of the Advisory Board of the Liverpool Nautical College.	
DR. F. W. Mott, F.R.S Physician to Charing Cross Hospital; colour-blind - 1649—MR. C. C. Paterson Of the National Physical Laboratory 2874—	2894
FLEET-SURGEON W. W. PRYN, R.N. CAPTAIN HENRY RUSSELL Vice-President of the British Shipmasters and Officers Protection Society.	
MR. A. T. H. Scott Principal Pilotage Clerk of the London Trinity House - 2547— MR. L. Stromberg, R.N.R Superintendent of the Mercantile Marine Office and Examiner in Sight Tests at Hull.	
FLEET-SURGEON G. WELCH, R.N Deputy Surgeon-General, Royal Navy 720— CAPTAIN J. H. WILLS Marine Superintendent of the General Steam Navigation Company, Limited.	
Mr. J. Havelock Wilson President of the National Sailors' and Firemen's Union - 2438—	2546

O (6)5200 Wt 875 7/12 E & S

a í