# FORENSIC MEDICINE

A TEXT-BOOK FOR STUDENTS AND A GUIDE FOR THE PRACTITIONER

by

## DOUGLAS J. A. KERR

M.D., F.R.C.P.E., D.P.H.

Regius Professor of Forensic Medicine in the University of Edinburgh

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## Fifth Edition

With 63 illustrations from photographs, 4 in colour, ard 30 figures

Fresh legislation has necessitated a thorough revision, not only for the student but also for the practitioner and the lawyer. In particular the Cremation Act 1952, the Coroner's Rules 1953, the Poisons Rules 1953, and the Dangerous Drugs Regulations 1953, have been taken into account. The entire text has been reviewed and brought up to date, and the statistics revised. In addition, the author has included a new chapter giving a brief historical outline of the subject.

'Expressed with the clarity one associates with good lecturing, his chapters on professional ethics and on the relation of crime and insanity are excellent. A careful study of Dr. Kerr's competent pages, doubtless destined to grow more voluminous in future editions, will enable readers to face cross-examination with confidence either in the examination room or in the witness-box.' THE LANCET

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#### FIFTH EDITION

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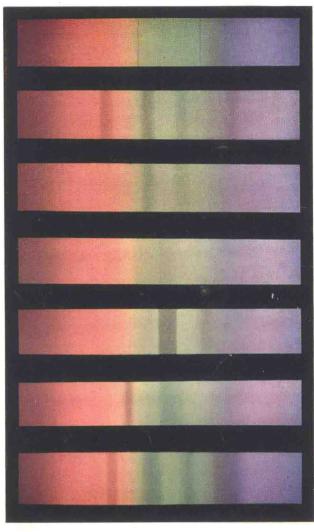
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SPECTRUM (natural colour photograph)

NEUTRAL METHAEMO-GLOBIN

OXYHAEMO-GLOBIN

add Reducing Agent to either of above

HAEMOGLOBIN (reduced)

add an Alkali

HAEMO-CHROMOGEN

add strong Acid to any of above

ACID HAEMATO-PORPHYRIN

add strong Alkali to any of above

ALKALINE HAEMATO-PORPHYRIN

Fig. 1.—Blood spectra.

#### PREFACE TO THE FIFTH EDITION

FRESH legislation which came into effect in the last year makes a new edition desirable, and it is fortunate that this has coincided with the fourth edition becoming exhausted. The Medical Act, 1950, the Cremation Act, 1952, the Coroners Rules, 1953, the New Poisons List, 1952-1953, the Poisons Rules, 1953, and the Dangerous Drugs Regulations, 1953, have necessitated changes. The opportunity has been taken to revise the statistics, to clarify parts of the text, and to add points of practical value. I have also included at the end of the book a new chapter outlining briefly the historical development of the subject. The details and list of Schedule IV poisons have been retained, but the full poisons list and drugs in Schedule I have been omitted as I have felt that long lists of names, many not used in this country and others incomprehensible to myself, would not be of much value to a practitioner or student, and those few who are able to appreciate them will be able to obtain the complete Poisons Rules, 1953, and Poisons lists from H.M. Stationery Office.

DOUGLAS KERR

Edinburgh, January 1954

#### PREFACE TO THE FIRST EDITION

THIS book is not intended to be an exhaustive work of reference but is written with the object of teaching Forensic Medicine to medical students, and of affording a definite and reliable line of action in the many medicolegal problems about which I am so frequently consulted by medical practitioners. The text has been kept within a compass suitable for a student, but in some parts it may be thought that the detail given is only suitable for a specialist, and in others that the subject-matter is outside the usual academic class-work. Practical experience has, however, indicated the necessity for such teaching. Again, certain advice may appear rather dogmatic, but a practitioner in doubt about a medico-legal problem wishes to have a clear-cut line of action; this I have endeavoured to give him. The Identification of Fire-arms is not part of Forensic Medicine; but a short description of this is desirable, and two illustrations of cartridges and bullets have been reproduced by permission of Major Burrard from his book Identification of Fire-arms and Forensic Ballistics. With this exception the plates are all photographs of cases occurring in my own medico-legal practice.

DOUGLAS KERR

EDINBURGH,
March 1935

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#### CHAPTER I

#### INTRODUCTION

FORENSIC MEDICINE or Medical Jurisprudence may be defined as the application of medicine to the purposes of the law and the administration of justice. As such it plays an important part in guarding the safety of each individual in the community, and also in ensuring that any accused person is not unjustly condemned. In Norman times criminal trials were conducted by ordeal—the accused placed his arm into boiling water or took hold of red-hot iron, or suffered himself to be thrown into a pond; if after a few days he showed no marks of injury he was judged innocent. In the case of the pond he was judged guilty if he swam. This trial by ordeal ceased in 1215, and the method of trial has progressed up to the present day. Gradually medical science was recognized as being of help, especially in Germany and France, where the subject was taught in Medical Schools. At the end of the eighteenth century its importance was recognised in Great Britain, and voluntary lectures were commenced in Edinburgh. In 1807 the Crown established a Chair of Forensic Medicine in Edinburgh, the first in any Englishspeaking community, and this was quickly followed by Lectureships in other medical centres, and Forensic Medicine became part of the medical curriculum.

Whilst the definition given covers the medical aspects, there must also be included within its scope a knowledge of the laws which have been made to ensure the peace and order of the community, which particularly affect the practitioner in his professional duties, such as the laws relating to the granting of death certificates, and to the sale of poisons, as well as the medical acts which govern the registration and control of the medical profession.

Forensic medicine is in great part an exercise of common sense combined with the application of knowledge already acquired in the study of other branches of medicine. A knowledge of wounds has been acquired in the study of surgery, or the causes of sudden death in medicine, and of abortions in midwifery; but it is this knowledge viewed from a different angle.

1

The surgeon sees a wound and is concerned with the treatment and whether it is infected or not, it does not matter to him how it was caused; the medical jurist, on the other hand, wishes to determine what kind of violence or instrument will produce such a wound.

Forensic Medicine treats of injuries, assaults, poisoning, and suspected criminal offences, and the student may wonder why he is called on to learn the principles of such a subject. When it is seen that each year one out of every twenty-eight deaths, including infants, is due to violence and that the law has to be satisfied as to the cause of the death and how it was brought about, it will be realised that no practitioner can avoid being involved in matters calling for knowledge of Forensic Medicine.

#### GENERAL MEDICAL COUNCIL

The General Medical Council is the controlling Body of the Medical and Dental Professions set up under the Medical Act of 1858 and is composed of 18 Representatives from the Universities, 10 from the various Medical Corporations, 8 appointed by the Crown of whom 3 are laymen, and 11 elected by the Profession, to which are added 3 qualified Dentists for Dental matters. Its functions are: (1) to keep a Register of Medical men, (2) to exert discipline over the profession, (3) to control medical education, and (4) to issue the British Pharmacopoeia.

Registration.—The Medical Act begins: "Whereas it is expedient that persons requiring medical aid should be able to distinguish qualified from unqualified practitioners, be it enacted . . ." From this it will be seen that the chief function of the General Medical Council is the protection of the public. It exerts this function by keeping a Register of qualified medical men, and it is to be noted that it is not the possession of a Degree or Diploma that constitutes a person a legally qualified practitioner but the placing of his name on the Medical Register. Under the Medical Act, 1950, the newly qualified medical man has to serve one year in a recognised hospital post before his name can be placed on the Medical Register. To enable him to carry out his duties in hospital, his name is placed on a Provisional Register kept by the council. This gives him the status of a Registered medical man when performing the duties of his hospital appointment, but he may not engage in medical practice as a legally qualified medical practitioner outside the hospital.

The advantages to a medical man of being registered are that he is legally recognised as a medical man; that he is enabled to sign statutory medical certificates and to hold official appointments, and that he is exempted from jury service. Disadvantages of Non-registration.—Unlike a Midwife or Dentist, who can be prosecuted for practising if not certified or registered, anyone can practise medicine provided he does not imply that he has medical degrees which he does not possess or that he is on the Medical Register.

Such an unregistered practitioner, however, is not accepted as a doctor in a Court of Law, and so is unable to sue for his fees; is by statute prohibited from treating venereal disease; cannot hold public medical appointments; and cannot give statutory certificates, notifications, or reports.

Such documents include, among others, certificates, notifications, reports, etc.:—

- (a) Under the Acts relating to births, deaths, or disposal of the dead.
- (b) Under the Acts relating to Lunacy and Mental Deficiency and the Rules made thereunder.
- (c) Under the Vaccination Acts and the Orders made thereunder.
- (d) Under the Factory Acts and the Regulations made thereunder.
- (e) Under the Education Acts.
- (f) Under the Public Health Acts and the Orders made thereunder.
- (g) Under the National Health Acts.
- (h) Under the Acts and the Orders relating to the notification of infectious diseases.
- (i) Under the National Insurance Acts and the Regulations made thereunder.
- (j) Under the Old Age Pensions Acts and the Regulations made thereunder.
- (k) Under the Merchant Shipping Acts.
- (1) In connection with sick benefit, insurance, and friendly societies.
- (m) For procuring the issue of Foreign Office passports.
- (n) For excusing attendance in courts of justice, in the public services, in public offices, or in ordinary employments.
- (o) In connection with Naval and Military matters.

Discipline.—The General Medical Council does not restrict the theories which a doctor may practice. Once a practitioner has been trained and tested in the knowledge essential for public safety, he may adopt any theory in which he honestly believes. There are, however, certain obligations on a medical man after Registration, a certain standard of conduct to maintain. If it is shown that a medical man, in the pursuit of his profession, has done something in regard to it which would reasonably be regarded as disgraceful or dishonourable by his professional brethren of good repute and competency, it is then open to the Council to say that he has been guilty of "infamous conduct in a professional respect", and it is this infamous conduct which the

Council takes notice of. The Council delegates its disciplinary powers to a Medical Disciplinary Committee of 18 members. The following

may be considered as examples of infamous conduct:-

(1) Certificates, Notifications, and Reports.—Any such certificate or document signed or given under the authority of a medical man which he knows to be untrue, misleading, or improper will be considered infamous conduct, and any doctor, before issuing a certificate of any description, should take all precautions to verify the accuracy of the statement contained therein and take particular care that the wording is not apt to be misleading. It is of course impossible to ensure that in every case a certificate is true and accurate; the essential point is that it is true and accurate to the best of the doctor's belief.

(2) Sale of Poisons.—The employment, for his own profit and under cover of his own qualifications, by any registered medical practitioner who keeps a medical hall, open shop, or other place in which scheduled poisons or preparations containing scheduled poisons are sold to the public, of assistants who are left in charge but are not legally qualified to sell scheduled poisons to the public, is in the opinion of the Committee a practice professionally discreditable and fraught with danger to the public, and any registered medical practitioner who is proved to have so offended will be liable to have his name erased from the Medical Register.

(3) Dangerous Drugs.—The contravention by a registered medical practitioner of the provisions of the Dangerous Drugs Acts and the Regulations made thereunder may be the subject of criminal proceedings, and any conviction resulting therefrom may be dealt with as such by the Committee. But any contravention of the Acts or the Regulations involving an abuse of the privileges conferred thereunder upon registered medical practitioners, whether such contravention has been the subject of criminal proceedings or not, will, if proved to the satisfaction of the Committee, render a registered medical practitioner liable to have his name erased from the Medical Register.

(4) Covering and Unqualified Assistants.—By covering is meant that a qualified man associates with an unqualified man in practice, and by his association remedies the legal deficiencies under which the unqualified man works; such as where a case of death occurs in the unqualified man's practice, the qualified man steps in and grants the death certificate.

The employment by any registered medical practitioner in connection with his professional practice of an assistant who is not duly qualified or registered, and the permitting of such unqualified person to attend, treat, or perform operations upon patients in respect of matters requiring professional discretion or skill, is in the opinion of the Committee in its nature fraudulent and dangerous to the public health; and any registered medical practitioner who shall be shown to have so employed an unqualified assistant is liable to have his name erased from the Medical Register.

Any registered medical practitioner who by his presence, countenance, advice, assistance, or co-operation, knowingly enables an unqualified or unregistered person, whether described as an assistant or otherwise, to attend, treat, or perform any operation upon a patient in respect of any matter requiring professional discretion or skill, to issue or procure the issue of any certificate, notification, report, or other document of a kindred character (as more particularly specified in the list on page 3), or otherwise to engage in professional practice as if the said person were duly qualified and registered, is liable on proof of the facts to have his name erased from the Medical Register.

The foregoing do not apply so as to restrict the proper training and instruction of *bona fide* students, or the legitimate employment of dressers, midwives, dispensers, surgery attendants, and skilled mechanical or technical assistants, under the immediate personal supervision of a registered medical practitioner.

- (5) Association with Uncertified Women practising as Midwives.—Certain registered medical practitioners have from time to time by their countenance or assistance, or by issuing certificates, notifications, or other documents of a kindred character, enabled uncertified persons to attend women in childbirth otherwise than under the direction and personal supervision of a duly qualified medical practitioner contrary to law; such conduct is discreditable to the profession of medicine, and calculated to defeat the purpose of the statutes made in the public interest for the protection of mothers and infants; any registered practitioner who is proved to have offended will be liable to have his name erased from the Medical Register.
- (6) Association with Unqualified Persons.—Any registered medical practitioner who, either by administering anaesthetics or otherwise, assists an unqualified or unregistered person to attend, treat, or perform an operation upon any other person, in respect of matters requiring professional discretion or skill, will be liable on proof of the facts to have his name erased from the Medical Register.
- (7) Advertising and Canvassing.—The practices by a registered medical practitioner—(a) of advertising, whether directly or indirectly, for the purpose of obtaining patients or promoting his own professional advantage; or for any such purpose of procuring or sanctioning or acquiescing in the publication of notices commending or directing attention to the practitioner's professional skill, knowledge, services, or