THE

GLASGOW MEDICAL JOURNAL.

No. VI. October, 1893.

ORIGINAL ARTICLES.

DEATH CERTIFICATION AND REGISTRATION IN SCOTLAND: ITS PRESENT DEFECTS AND A PROPOSED REMEDY.*

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In the Report of the Royal Sanitary Commission of 1869, which was presented to Parliament in the session of 1870-71, the following important statement may be found:—

"It is important that there should be no 'uncertified' deaths—that is, no cases in which deaths and their supposed causes are reported to the registrars by any other than the medical attendant of the deceased person, or some qualified medical man. In every such case there is not only a fact lost for the statistics on which a part of the study of public health is based, but a great opportunity permitted for fraud and crime."

With that statement every one interested in public health will doubtless agree, as will also those, probably, whose duty it is to enquire more closely into the subject which forms the closing paragraph of the foregoing statement.

* Read before the British Institute of Public Health at Edinburgh, August, 1893.

Since the passing of the Registration Act of 1854, and more particularly in these recent years, it has become noteworthy that efficiency in the registration of the cause of every death has not been attained; and from time to time the attention of the public and of the State has been drawn to the facts.

In the year 1871 the late Dr. Fergus, of Glasgow, dealt with the subject. In 1875 the able medical officer of health for Glasgow, and the President of one of the Sections of this Congress, Dr. Russell, in an elaborate monograph, directed the attention of his local authority to the great prevalence of "uncertified" deaths in Glasgow.

In 1883, the *Lancet* (vol. i, p. 1106) made a very serious charge against the Registrar-General for Scotland, and against the value of Scottish statistics generally. It stated that the Registrar-General was officially ignorant on the whole matter of "uncertified" deaths; that *one-fifth* of the total deaths in Scotland was uncertified; and that, in consequence, the statistics for Scotland were of little practical value. This paper compiled, from the weekly returns of the Registrar-General, a table which bore out its contention, but it was exceedingly erroneous, as was afterwards proved.

Up till 1885, indeed, when the annual return for 1881 was published, there were no corrected data available in Scottish statistics; and those of the weekly reports, liable as they were to considerable after-correction, caused the *Lancet* to overstate its case—not, however, through any fault due to it, but simply to the incompleteness of official returns.

About this time my attention was attracted to the subject, but in the absence of official data, I had to apply to medical officers of health and registrars in Scotland for officially correct details. These were kindly placed at my disposal; and from them, in a paper which I read before the Philosophical Society of Glasgow in the session 1884-85, and which is printed in the *Transactions* for that year, I was enabled to discuss the whole question. That paper, entitled "An Enquiry into the Necessity for Legislative Reform in Scotland in regard to Uncertified Deaths," may be consulted by those who are desirous of pursuing the question statistically. Suffice it to say, here, that my enquiries showed that the *Lancet* had much overstated the case. However, there was still a strong case remaining for enquiry and improvement. In addition to these steps taken to direct public attention to this question, it is pleasing to note that Dr. Cameron (now Sir Charles, and a member of the Select Committee of the House of Commons on this question), in his place in the House,

kept the question alive by putting pertinent questions to the Government from time to time.

All those specially interesting themselves in this subject were pleased when the present Government determined to enquire into the whole question by a Special Committee of the House of Commons: and they look forward with hope to early realisation of reform. So much for the historical side of the subject.

It need hardly be pointed out here that all deaths, which are duly and properly certified, become available statistical units from which certain deductions respecting the public health may be made, and that those the causes of which are not certified are missing links of the statistical chain which cannot be replaced, and which render, therefore, the chain imperfect.

Not only are "uncertified" deaths blots on the statistical page, but they give rise to questions of the gravest importance—those of undetected crime. And equally from the former as from the latter point of view, does this question of the certification and registration of deaths form a fitting subject of discussion.

It is not my purpose to discuss at any length the statistical side of the subject in this paper, but I submit a table showing the difference in the prevalence in Scotland of this class of deaths as between the year 1881 (the date of the first annual return in which they are treated) and the year 1890 (the date of the last annual report published), and giving the statistics for England for the latter year.*

This shows a very satisfactory decrease during the last ten years; but one cannot avoid noting that even in 1890, of 79,004 total deaths in Scotland, 4,569 (that is, 5·8 per cent) persons were buried, the causes of whose deaths were not known. There is a general reduction all over, except when we come to deal with groups of districts. While in the principal town-districts, large and small town-districts, and insular-rural districts a decrease is noteworthy, this does not equally obtain in the mainland-rural districts. Here there is a positive increase since 1881. In this year this class of deaths amounted to 7 per cent, but in 1890 it had risen to 9·5 per cent (*vide* Table III).

It is also to be borne in mind that in the total deaths which are officially noted as certified are included those, numbering annually some hundreds, the causes of which are guessed from simply an external examination of the body after death, and those also which are labelled as being due to

* *Vide* Appendix. Tables I, II, III, V, and VI deal with Scotland, and Table IV with England.

"natural causes." Certification of death from mere external examination of the body may, in certain cases of accident, of suicide, and of disease, be quite possible; and to this extent this mode of certification is quite legitimate and sufficient; but apart from this class, such a mode of certification must always be deprecated, since the cause given is more likely to be wrong than right. It is quite true that this mode is not infrequently adopted by police surgeons, who, however, are well aware that it is an unsatisfactory method, and who would be well pleased to get rid of the duty. Of this condemnation I personally take my share. From the point of view of prevention of gross crime it may be satisfactory enough, but from that of statistical accuracy it cannot be defended.

Let me mention one or two established facts arising from an analytic examination of the figures of "uncertified" deaths, without troubling with figures. In the first place, they are most frequent at the age extremes of life—in the very young and in the very old—at the times when life is of the least value; in the second place, they are more incidental to illegitimate than to legitimate offspring; in the third place, that there has been a very notable decrease since the Friendly Societies Act (1876) came into operation, which practically demands the production of a medical certificate before monies can be obtained; and in the fourth place, that "uncertified" deaths are fewer in England than in Scotland.

It seems to me, however, that so long as four and a half thousand persons in Scotland are buried in any one year, the causes of whose deaths are not known, so long will there be a reasonable demand for remedy of the defect, since it produces statistical deficiency at a time than which there never was one when public health statistics were more necessary and more demanded as an outcome of recent legislation, and so long will there remain dissatisfaction in the minds of those who believe that in such a number lie the victims of undetected crimes.

What is an "uncertified" death?

In Scotland it means a death the cause of which has not been duly certified either by a registered medical practitioner or by the procurator-fiscal, and in England, by a practitioner or by the coroner. Doubtless there are few who will disagree with this definition, and there are fewer who would be inclined to extend the qualification of certifying to medical botanists *et hoc genus omne*, midwives, or other unqualified persons.

The state has properly placed the responsibility on the

shoulders of those who are most able to exercise it; but, while that is so, it is clearly, at the same time, the duty of the state to know the cause of the death of every person, who has lived, even for the shortest period, under its protecting influence, not only in the direction of the prevention and discovery of crime, but in that also of the public health.

It is noteworthy, too, that while the State placed the responsibility of certifying the cause of death on the registered practitioner, it made no provision in its Registration Acts for remunerating the certifier; nay, more, failure to certify on demand incurred a penalty. For the long period of thirty-nine years the medical profession has performed this duty loyally, although I cannot add ungrudgingly.

It has been already noted that the percentage of "uncertified" deaths is higher all over Scotland than in England. This is probably not the place to discuss the value of the coroner's enquiry or its general efficiency, but it cannot be denied that it is an important factor in keeping down this class of deaths in England.

Why should "uncertified" deaths be more prevalent in our part of the island? Let us examine the machinery for certification and registration in Scotland, and see wherein it differs from that in England.

In Scotland it consists of—(1) The Registration Acts and (2) the enquiry of the procurator-fiscal.

The Registration Acts (which must be read together) at present in operation are—(1) The original Registration Act of 1854 (17 and 18 Vict., cap. 80); (2) the first amending Act, 1855 (18 Vict., cap. 29); and (3) the second amending Act of 1860 (23 and 24 Vict., cap. 85).

Let us briefly consider the points in these Acts dealing with our subject.

Section 38 of the original Act enacts that where a death occurs in a house, one of the nearest relatives present at the death shall, within *eight* days thereafter, personally attend on the registrar and tender the necessary information, under a penalty of *twenty* shillings in case of failure.

Section 39, that in the case of a death occurring not in a a house or in a tenement, the occupier of the house or tenement in which the dead person resided shall give notice to the registrar within twenty-four hours after he knows the fact, under a penalty not exceeding *forty* shillings.

Section 41 of the original Act, and Section 14 of the second amending Act, both deal with the relation of the medical practitioner to the registrar, to the effect that the medical

person who attended during the last illness of a deceased person is bound to transmit to the Registrar, within *seven* days thereafter, a certificate of the cause of death; failing to do so, the registrar must then forward to him a certificate-form, and, by a printed or written requisition, shall require him to return the said form duly filled in, within *three* days after the receipt thereof, under a penalty not exceeding *forty* shillings in case of failure.

From the foregoing provisions, then, it is at once apparent that the maximum legal period which may elapse between a death and the receipt by the registrar of the medical certificate is *eleven* days, and that the maximum legal period within which a death must be registered is *eight* days; any longer periods would be illegal, and would bring both the lay and medical reporters of the death within the operation of the statutory penalties.

In ordinary practice, in populous places, it works out that, in a large number of cases, the acts of registration and certification are effected at the office of the registrar at one and the same time, and before the interment of the body; that, in another proportion, the act of certification does not happen till after the interment, where in the act of registering the death a medical attendant has been named, and where his certificate is not sent in till he receives the official notice of the registrar; and that, in a very small proportion of cases, no certification of death is effected, by reason of the medical man named by the legal informant of the death declining to furnish a certificate.

With the bulk of cases the work of the registrar is plain-sailing—*i. e.*, with those cases which are duly and properly certified, and where the nature of the cause of death gives rise to no suspicions. The proportion of cases which does, however, give that official some trouble is the class of cases where there has been no medical attendant, and where there are no *apparent* suspicious circumstances on the face of the information tendered. Where suspicion emerges in a case, the duty of the registrar is defined by the Registration Act—viz., he must intimate the case to the procurator-fiscal. But where no suspicious circumstance is obvious in the information tendered, and where there is no medical certificate supplied, the duty of the registrar is differently interpreted. Some are inclined to assume that the very fact that a person has died without medical attendance creates suspicion, and warrants them reporting to the fiscal; others, again, reading the Registration Acts, are of opinion that their clear duty is to register the death in the light of the information tendered by the

relatives, issue an extract for burial, and label the death as "uncertified."

Whatever view may be the right one, I do not stop here to discuss, but in any case there are grave objections to placing the responsibility of initiating the enquiry of the fiscal on the shoulders of an official, who must judge of the presence or absence of suspicion from information tendered by those who would be most likely to conceal such if there were any, and who, besides, is not in a position to estimate the character for veracity of his informants. It seems to me unfair to place this *onus* on the shoulders of an official whose duties are chiefly clerical, and who is ill-competent to judge on many points in this connection.

The Registration Acts of Scotland take no cognisance whatever of still-births; but more of this again.

Let me next direct attention to the differences in procedure in the English Registration Act of 1875, at present in operation.

This Act enacts—1st, That the legal informant of the death must register the death *within five days thereafter;* 2nd, that the medical attendant of the deceased person must provide the legal informant of the death with a certificate duly setting forth the cause of death; and 3rd, that the legal informant of the death must convey to the registrar the aforesaid certificate.

The obvious advantages arising from the above are, that the shorter maximum period is all in favour of earlier registration, of direct certification, and where no medical certificate is forthcoming, of earlier enquiry, if thought necessary.

The effect of the legal informant having himself to convey the certificate of death from the medical attendant to the registrar means, in practice, that the cause of death is ascertained before the body is put under ground; for, without the authorised extract of the registrar, no body can be legally interred.

But should no medical certificate be forthcoming, it is in the option of the registrar either simply to note the information tendered, issue extract for burial, and label the case "uncertified," or, the more common course, to forward intimation of the death to the coroner, who may hold a formal or an informal inquiry, the result of which must be returned by him to the registrar.

The longer maximum period in Scotland, eleven days, operates disadvantageously in respect of early registration—at least of early certification—if not of both.

Thanks to the operation of the Friendly Societies' Act, 1876, and the extensive habit of minor insurance prevalent among the working-classes, in a very large number of cases

the registrar receives the medical certificate at the time of the registration and before the interment. This happens because under this Act the registrar is the official named to issue such extracts of the medical certificates for insurance purposes as will not exceed the sums laid down in the Act for which children at two periods of age are insurable.

In many cases, however, the medical certificate does not reach the registrar until some days have elapsed after the registration and after the interment.

This long period, too, contributes to fraud and perjury. It tempts persons to name a medical attendant who afterwards declines to certify, and meanwhile the body is buried.

Instances are not unknown in Scotland where the death of the same person has been registered in more than one office for the sake of pecuniary benefit, and also *of deaths being registered which never occurred, and of burial certificates being issued by registrars where there were no corpses to inter.*

It may be objected by some that, in respect as in England the relative of the deceased person has to carry the medical certificate of death to the registrar, and in respect, sometimes, it is required to put down on such certificates causes of death which must be hurtful to the feelings of the relatives, such as suicide, insanity, syphilis, alcoholism, delirium tremens, &c., the certifier would suffer prejudice at the hands of the relatives. That is quite likely, but the duty is obligatory. Probably, however, this objection is more sentimental than real, since the information given in a certificate is confidential as between the practitioner and the State.

It has been already observed that the Registration Acts take no interest in *still-births.* That is probably due to the fact that as a still-born child, as the old legal phraseology puts it, never was "a reasonable creature in being, and under the King's peace," the State can have no concern over an infant which never had a legal existence. But is it wise that no record should be made of *still-born* children? I think not. In the first place, because there is every reason to believe that in our country, as abroad, the adjective still-born is capable of considerable elasticity of meaning, and is illegally used. We know that prosecutions have had to be made because of this. But there is another and, I think, more important reason. We are in the habit of estimating the fecundity of a population by birth-rates based on the number of live-born children in a given time to a given population. It is true that in this way we estimate living units of population, but, at the same time, our birth-rates are not

rigidly correct. By our present method of calculating birth-rates, we only estimate the fecundity of any population by the number of children born in a given time, and who have survived their birth. It seems to me that there are many children born dead who die simply owing to the accidents and circumstances of birth, and who would have survived had the circumstances been but slightly changed.

To truly estimate the fecundity of a population, it is, to my mind, absolutely essential that all the children, live or still-born, must enter into the calculation. We presently separate the legitimate from the illegitimate births; it would be very simple to have a separate column for still-births.

Of course, such an estimation would only be made where the absolute fecundity of any given population was to be ascertained.

It is to be deplored that a midwife, or "handy woman," who cannot legally sign the certificate of the cause of death of any infant who has had an independent existence for the shortest time, should have it in her power to certify the fact of a still-birth to an undertaker, and secure burial of the body without the least further enquiry. It is this power, and the elasticity in interpretation of the term "still-born," that contribute to looseness in practice.

It is an interesting fact that in Glasgow, from 1783 till 1855, the still-births were reckoned in the death-rates of the city, although they were then designated burial-rates.

The second factor contributing to reduction in the number of "uncertified" deaths in Scotland is the enquiry of the procurator-fiscal.

This enquiry arises solely and exclusively out of the question of *culpa*, and it is conducted by the procurator-fiscal as public prosecutor, with the object of determining whether or not anyone is to blame, and whether or not anyone is to be prosecuted.

The procurator-fiscal is less anxious to know the precise cause of the death as he is to know whether or not it was due to a culpable cause. He, therefore, has little concern in deaths as statistical units, and his function operates solely from the criminal, and not from the statistical side.

This official receives the information which prompts his action (*a*) from the police; (*b*) from the public; and (*c*) from the registrars.

The Registration Acts do not define the class of cases into which his enquiry shall be made, except that the registrars shall report to him those deaths in which suspicion emerges,

whether they be duly certified by a medical practitioner or not.

In practice, however, this official enquires into deaths resulting from violence, into sudden deaths, and deaths under suspicious circumstances. My experience, as a police surgeon, leads me to say that the term "sudden" is capable of much elasticity of meaning.

In the chief towns the duty of making the enquiry is placed on the police surgeon and a detective officer in the first instance, who report separately to the fiscal.

The police surgeon is asked to make an external examination of the body, and from it, when possible, to certify the cause of death; meanwhile, the detective officer is making enquiry into the other circumstances. If the police surgeon feels himself warranted in hazarding a guess at the cause of death, and that in conformity with natural disease, and should nothing criminal emerge from the investigations of the criminal officer, the enquiry is closed, and the cause named in the medical certificate is reported to the registrar as the cause of death.

In many cases, police surgeons can certify with accuracy the cause of death, as in cases of violent death by accident, homicide, or suicide, or in cases where the cause lies on the surface; but in a large class of cases the external examination affords no clue to the cause of death. It is but too true that many of the certificates granted under such circumstances, although returned in conformity to the circumstances of the cases, are as likely to be wrong as right. The police surgeon who declines continuously to certify from an external examination alone, will very quickly find himself remonstrated with. The chief factors which regulate the liability to error in such certificates are—1st, the impossibility of accurate diagnosis of the cause of death from a mere external examination of the body, however much this may be assisted by extraneous evidence, such as the known presence of disease in the person, &c.; and, 2nd, the inability to give, or the wilful withholding of, such information by those associated with the deceased, as might enable the surgeon to form an intelligent opinion.

It must always be borne in mind that these enquiries are made among the very persons whose object and desire it would be to conceal everything from those enquiring which might involve them in further trouble. This also tends to inaccuracy.

In many cases, police surgeons report that they are unable to certify the cause of death. It is then the option of the fiscal to order a *post-mortem* examination. Should the

enquiry of the criminal officer tend in the direction of a closer scrutiny being required, then probably such examination is made under warrant; if not, then the fiscal will probably not order a *post-mortem*, and will report to the registrar that the cause is unknown, or "natural causes." Without question, fewer *post-mortem* examinations are now ordered than formerly; economy of a parsimonious type seems to prevail at present in the Scottish Treasury; and there is no doubt that, so far as establishing the true cause of death is concerned, the enquiry of the fiscal is now even less efficient than in former years.

We have no precise means of determining how far this enquiry tends to reduce the number of uncertified deaths. Those who are interested on this point, so far as it could be worked out, I would refer to my former paper. It is to be regretted that the Registrar-General for Scotland does not, in his Annual Report, furnish a table, showing the gross returns of deaths certified by practitioners and by the fiscal, as his English *confrère* does in respect of the coroner. Such a return would be very valuable, and I would respectfully urge upon that official the advisability of introducing such a table at an early date, as he alone has the data at his command.

Whenever the fiscal holds an enquiry, he is bound by Section 40 of the original Registration Act to inform the registrar of its result. The Act, however, does not specify any limit of time within which this report shall be made. There can be no doubt as to the advisability of expedition in this matter; and it is satisfactory to know that matters have much improved in this direction during the last ten years, although, even yet, intervals as long as from *six* to *twenty-seven* months are permitted to elapse between the date of the death and the receipt of the report by the registrar. This is to be deprecated. I have no hesitation in saying that, so far as reduction of the number of "uncertified" deaths is concerned, the enquiry of the procurator-fiscal is not comparable in efficiency with the inquest of the coroner; and probably the reasons for this are—first, that the coroner begins and ends his enquiry in the ascertainment of the cause of death, whereas the fiscal is, as I have pointed out, less concerned in knowing the *cause* of death as in knowing whether or not anyone is *culpable;* and second, from the insufficiency of means at the disposal of the fiscal.

Having demonstrated that the present machinery in Scotland overtakes its work with less efficiency than the English—at least, that it fails to account for the causes of the highest

possible percentage of deaths—the next prominent question that demands an answer is, Does the present machinery require remodelling, reconstruction, or is there new machinery required?

That some change is necessary is obvious to every one interested in the verity of statistical facts, and who, at the same time, believes that it is a prime duty of the State to know the cause of the death of every unit of population within its borders and under its protection. Doubtless it may be argued by some that sufficient is known of the causes of death of those whose deaths are returned as "uncertified" to prevent all feeling of anxiety about secret crime. That, however, in my opinion, cannot be conceded. But granting, for the sake of argument, that the possibilities for secret crime do not exist in the four thousand five hundred odd deaths that occurred in 1890, or in any other number in any other year, it appears to me that the State, by its public health legislation, both recent and more remote, has created a greater necessity than ever for accurate statistical returns, and in those respecting the causes of death not less than in any other.

The State demands that medical officers of health shall give returns showing the relative healthfulness of areas by their death-rates; but, while it makes this demand, it has not afforded, in Scotland, that body of officials the opportunity, *as a right*, of obtaining the requisite information from the registrars. This state of matters cannot for a moment be defended. These officials should be placed in such a position that every information required by them of the registrars should be at their disposal. This being conceded, the next point we would urge is, that the information should be worth the having, and that it should be as complete as possible. It is perfectly true that the bulk of the returns are available for statistical purposes, but it is equally true that there exists in Scotland a percentage of cases, more than double that in England, which is utterly valueless to the public health statistician. If the State desires the highest value to be placed upon the accuracy of such returns, it ought to see that the data from which the returns are made are calculable for the purpose.

In short, it is in the fact that nearly 6 per cent of the total deaths in Scotland are unclassifiable that the public health statistician has a direct interest in the completeness and efficiency of the machinery for the registration and certification of deaths; and the question as between remodelling or

reconstructing the present, or creating new, machinery toward this end, is worthy of serious consideration.

Starting, then, from the view we hold, that the machinery, as at present in operation, fails to overtake its work, let us consider whether this is due to improper or inadequate use, or to inherent defects.

There are some who hold the view that the present machinery fails from being inadequately used, and who believe that by remedying its faults it would meet the case. Others, again, hold equally strongly the view that there are in it such inherent defects as will ever prevent its efficient action. The former think that if every case of death which was not medically certified came under the purview of the fiscal, and if, in those cases which could not be certified by a mere external examination of the body, more frequent and systematic *post-mortem* examination were ordered, the whole difficulty would be solved.

Under such circumstances the fiscal would require to start not solely from the point of view of responsibility in his enquiry, but from the point of view of the *cause* of death, just as the coroner does in England. If this mode could be thoroughly carried out, matters would be much improved.

Those who consider that there are inherent defects in the machinery believe that nothing short of reconstruction, or, indeed, the creation of new machinery, would solve the problem.

The witnesses from Scotland who gave evidence before the Select Committee of the House of Commons were all agreed that the enquiry of the fiscal, as presently conducted, was not what it might be; and, as some believed and stated, was not what it ought to be. So long as the question of *culpa* is the be-all and end-all of that official's enquiry, and so long as his attention is directed to that as the principal factor in the enquiry, the results are bound to be unsatisfactory, because to him the precise cause of death was a matter of little moment, so long as no one was blameable. The statistician cannot but deem this as very unsatisfactory, and as requiring remedy; but from the point of view of the fiscal, it is the only workable view.

Some are inclined to the belief that the enquiry of the fiscal, as presently regulated, has reached its high-water mark of efficiency, and that we can expect nothing more from it.

Personally, I hold the opinion that the present machinery cannot cope with the problem we are now considering, and I desire, for the purpose of evoking discussion, to put down the views I had the honour of laying before the Select Committee.

It seems to me that the time is now ripe for the establishment of a Department of State Medicine—a Department which would deal with such questions as the efficient registration and certification of death, questions of public health, and medico-legal questions. I do not necessarily mean a Government Department, although there is absolutely no reason in Scotland why this should not be easily formulated, since the Secretary of State for Scotland already takes cognisance of such questions.

As each Local Authority or County Council has already the supervision and charge of the public health department, so, it seems to me, it should have the direct supervision and charge of the registration department. By such means all difficulty in obtaining statistical returns would be overcome, all present friction would cease. Not only so, but each County Council would have the charge of looking after all the "uncertified" deaths occurring within its area. This is not a new view. The Royal Sanitary Commission of 1869 laid it down as part of its remedial scheme, that all "uncertified" deaths should be dealt with by the public health department of each community. This view has found favour in many quarters. At present, each public health office must needs hold very intimate relations with that of the registrar, and each public health office spends annually considerable sums to obtain the requisite statistical information.

Each public health authority ought to be as much interested in the causes of deaths of its community as in the causes which affect the health of its indwellers, and there seems to be no very good reason why the former should not fall within its province, and that the latter should.

When the public health and registration departments were thus under the control of one body, it would be the duty of the controlling body to enquire into the cause of every death not certified by a practitioner. That might mean the appointment of new officials, whose duty it would be to make enquiry into every case, whether by *post-mortem* examinations or otherwise. The results of such enquiries would be intimated to the registrar, and in this way all "uncertified" deaths would cease to exist. Should anything of a criminal character emerge in the course of the enquiry, it would be the duty of the officer appointed to forthwith intimate the fact to the fiscal, and this officer would be a valuable witness in the case.

If there is one question which is more unanimously agreed upon than any other in the medical profession in this connection, it is that the time has now come when that profession

should be remunerated for its service to the State in the certification of deaths.

For nearly forty years the profession, in Scotland, has been doing the service gratuitously. It is time it should now cease. The certification of the cause of death is a responsible duty which every practitioner must feel, and it is reasonable that the profession should demand remuneration for this responsible service.

The local authority of each community under the Notification of Infectious Diseases Act is authorised to pay to the medical profession a fee for the purposes of that Act; there is no good reason why, if the scheme proposed were carried out, a fee should not be paid for every certificate of death to the qualified certifier, from the same source—viz., the rates or other public funds.

The chief objection to this would be the additional burden upon the ratepayers. Doubtless there would be additional expense. But every community would receive a *quid pro quo;* the money would be equally well spent and well earned.

The question as to the respective advantages and drawbacks of an open enquiry as in England by the coroner, or a secret enquiry as in Scotland by the procurator-fiscal is also a fitting one to be discussed here. Briefly, it may be stated that each method, as presently exercised, has its objections. Let me confine myself to those ascertained against the Scottish method.

In the first place, the *secrecy* of the fiscal's enquiry has no educative or deterrent effect on that class of the community within which it is generally found operating. Take, for instance, the case of children found asphyxiated in bed beside their parents—parents, too, who have gone to bed in an intoxicated condition. It is but too true that hundreds of such cases occur annually in Scotland, that probably an enquiry is held in every one of them, and that very few prosecutions result. This latter fact arises not because of any lack of zeal in the interests of justice on the part of the fiscal, but from the state of law. While the "moral" circumstances of such cases point to deaths in the infants from "overlying," "legal" guilt is difficult to prove. Take, again, the not inconsiderable number of cases of persons who are permitted to die without any effort made by the friends to call in medical assistance. The question of responsibility has not been tried in Scotland lately, but there is responsibility somewhere, surely. If it be the common law that a Shaker father is liable to prosecution for neglecting to summon medical aid

to his dying child, from the want of which the death may be accelerated or directly due, we fail to see any good reason why it should not operate more forcibly in similar circumstances, but where religious scruples do not exist. If it be an offence against the law to neglect children during their lifetime so that they suffer physical discomfort, surely it ought to be an offence to aid them to die. Death, as every one knows, may be equally accomplished by *omission* as by *commission.*

Prosecution apart, however, I hold the view that nothing short of an *open* enquiry will tend to reduce these two classes of death. It would act as a wholesome deterrent, it would prove of undoubted educative value, because the persons involved would be subjected to considerable trouble in the course of the enquiry, than which nothing more forcibly appeals to them. At present, under the *secret* or non-public mode of enquiry, nothing is done, nobody is reprimanded, the lamp of publicity sheds no light upon them, and in consequence they occur as frequently as ever. I do not here desire to be understood as approving of the more modern sensational form of the coroner's inquest, but I give my adherence to an open form of enquiry.

It seems to me that the time has now matured when every *still-birth* should be registered, when no "still-born" child should be interred except on an extract from the registrar, after due certification, stating the cause of the still-birth, and when a separate certificate-form should be employed for the purpose, bearing on its face the legal definition of the term "still-born." In this way dubious cases would be detected where suspicion was aroused. This course is adopted in America, and might well be followed here, since its adoption would involve but little extra trouble.

The following is the remedial scheme for Scotland, which would meet the case, and I set it down in the form of a series of propositions:—

I. The passing of a new Registration Act for Scotland, in which it would be enacted—

1. That the maximum limit of time within which registration of a death should be made be *three days* (or *five* days if that be deemed too short).

2. That the informant of the death should be the instrument of conveying the medical certificate of death to the registrar, which certificate the medical attendant of the deceased person would be bound to hand over to the legal informant of the death.

3. That the qualified certifier of each death should receive the sum of two shillings and sixpence for the State service so rendered.

4. That the registration department of each district should be under the direct control of the Local Authority or County Council of each district, subject to the provisions of the Act and to regulations laid down by the said Local Authority or County Council, and approved by the Secretary of State for Scotland, in order to secure uniformity.

5. That in every case where a medical certificate of the cause of death is not forthcoming within the aforesaid maximum period, and before the interment of the body, it should be the duty of the registrar to forthwith report the matter to the Local Authority, who, by its officers (preferably a medical officer in the health department, or a medical man specially appointed for the purpose), should make an enquiry into the cause of death by *post-mortem* examination if necessary, and should forthwith report the result to the registrar by certificate. Should anything in the course of the enquiry suggest culpability, that the matter be forthwith intimated to the fiscal in the interests of justice.

6. That all "still-births" should be registered, and the cause of the "still-birth" certified; and that the mode of registration should be a double entry, as a birth and as a death.

7. That all death-certificate schedules be numbered; that on issue of books of such forms the numbers therein contained, and the name of the medical persons to whom issued, be noted by the registrars; and that each qualified practitioner within each district should register his signature at the office of the registrar.

Note.—Since the foregoing paper was written, the Select Committee of the House of Commons has issued its report. It is satisfactory to note that several of the points of reform suggested in the paper have been given effect to in that report. They are as follows, briefly summarised:—

1. That no death should be registered without production of a certificate of the cause of death signed by a medical practitioner, or a procurator-fiscal, or a coroner.

2. That in each sanitary district a registered medical practitioner should be appointed as public medical certifier of the cause of death, in cases in which a certificate from a medical practitioner in attendance is not forthcoming.

3. That medical practitioners should be paid the sum of two shillings and sixpence out of the public funds, for each certificate stating the cause of death.

4. That still-births which have reached the stage of development of seven months should be registered upon the certificate of a registered medical practitioner, and that it should not be permitted to bury or otherwise dispose of the still-birth until an order for burial has been issued by the registrar.

APPENDIX.

"UNCERTIFIED" DEATHS IN SCOTLAND AND ENGLAND.

TABLE I.—COUNTIES OF SCOTLAND.

COUNTIES.	YEAR 1881.	YEAR 1890.
Shetland,	69·9	53·0
Orkney,	28·6	23·3
Caithness,	15·4	12·0
Sutherland,	54·4	35·4
Ross and Cromarty,	47·4	39·8
Inverness,	38·4	34·8
Nairn,	16·8	3·5
Kincardine,	10·0	3·1
Forfar,	6·4	3·3
Perth,	12·6	6·1
Fife,	14·3	5·7
Kinross,	15·4	10·5
Clackmannan,	8·5	4·4
Stirling,	9·2	3·1
Elgin,	20·3	8·6
Banff,	6·6	4·1
Aberdeen,	7·2	2·9
Renfrew,	8·6	3·9
Lanark,	7·8	2·6
Edinburgh,	8·9	5·6
Berwick,	4·0	1·9
Selkirk,	1·8	1·1
Dumfries,	8·4	3·9
Dunbarton,	5·9	4·2
Argyll,	35·1	23·4
Bute,	9·3	3·8
Ayr,	5·1	1·7
Linlithgow,	6·4	4·3
Haddington,	9·7	6·7
Peebles,	5·1	3·0
Roxburgh,	4·6	1·0
Kirkcudbright,	9·4	5·2
Wigtown,	13·0	4·8

TABLE II.—PRINCIPAL TOWNS IN SCOTLAND.

Towns.	Year 1881.	Year 1890.
Glasgow,	9·2	3·0
Dundee,	5·6	2·8
Greenock,	10·7	5·0
Paisley,	7·1	3·3
Kilmarnock,	1·7	1·8
Edinburgh,	10·2	7·6
Aberdeen,	3·1	1·0
Leith,	10·8	2·8
Perth,	5·0	1·9
Glasgow (Landward and Suburbs),	4·8	1·1

TABLE III.—GROUPS OF DISTRICTS.

Districts.	Year 1881.	Year 1890.
Principal Town Districts,	7·8	3·3
Large ,, ,,	7·3	3·5
Small ,, ,,	7·1	3·5
Mainland Rural ,,	7·0	9·5
Insular ,, ,,	52·5	47·1

TABLE IV.—"UNCERTIFIED" DEATHS IN ENGLAND IN 1890.

Total Deaths,	= 562,248		
Certified by Practitioners,	= 514,720	= 91·6	per cent.
,, Coroners,	= 31,581	= 5·6	,,
Not Certified,	= 15,947	= 2·8	,,
Percentage Proportion of "Uncertified" Deaths in Various Places (*Lowest*)—			
Extra-Metropolitan Sussex,		= 0·6	per cent.
London and Wiltshire,		= 0·9	,,
Extra-Metropolitan Surrey,		= 1·0	,,
Percentage Proportion of "Uncertified" Deaths in Various Places (*Highest*)—			
Derbyshire and Monmouthshire,		= 4·1	per cent.
Durham,		= 4·7	,,
Herefordshire,		= 5·0	,,
South Wales,		= 5·5	,,
Huntingdonshire,		= 6·0	,,
North Wales,		= 6·4	,,

TABLE V.—"UNCERTIFIED" DEATHS IN SCOTLAND IN 1890.

Total Deaths, ...	=	79,004	
Certified (by Practitioners and Procurator-Fiscals), . . .	=	74,435	= 94·2 per cent.
Uncertified, ...	=	4,569	= 5·8 ,,

TABLE VI.—"UNCERTIFIED" DEATHS IN PRINCIPAL TOWNS OF SCOTLAND IN 1890.

Total Deaths, ...	=	34,085	
Certified (as before), ...	=	32,908	= 96·55 per cent.
Uncertified, ...	=	1,177	= 3·45 ,,

CONGENITAL DEAFNESS.

BY JAMES KERR LOVE, M.D.

To all who interest themselves in the deaf and dumb, the question as to whether the deafness is congenital or acquired is important. Those who teach the deaf think this question all important. They make their criticism of teaching, in some instances, hinge entirely on the distinction. "Show me," they say, "a child who was born deaf and who now speaks intelligently, and I will admit the superiority of your methods." Now, admitting for the moment that congenital and acquired deafness have distinct pathologies, if the result of the diseased process be neither more nor less than the production of "surdism"—that amount of deafness which prevents the development of speech—what matters it whether the disease happen just before birth, or say at the beginning of the second year of life? Indeed, hearing lost in the second year confers almost no ultimate benefit on those who at that age lose it, and hearing lost in the fourth, fifth, or sixth year is generally followed by muteness. So that it is useless for teachers to draw any line between those congenitally deaf, and those who lose their hearing in early childhood. The latter soon become as dumb as the deaf born. What a teacher should know about his pupil, in addition to the facts about his general intelligence, is the extent of his deafness. If he