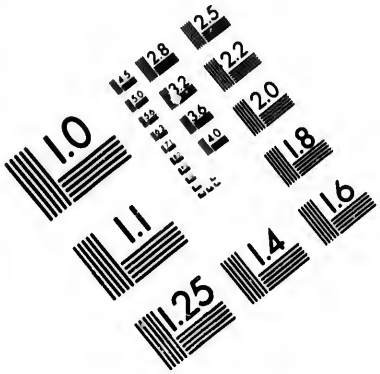

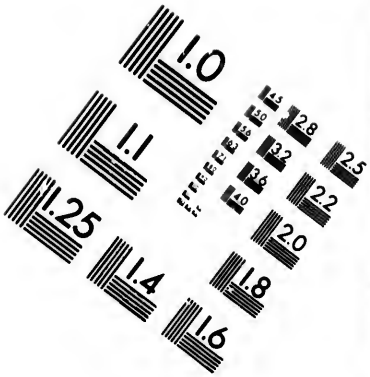

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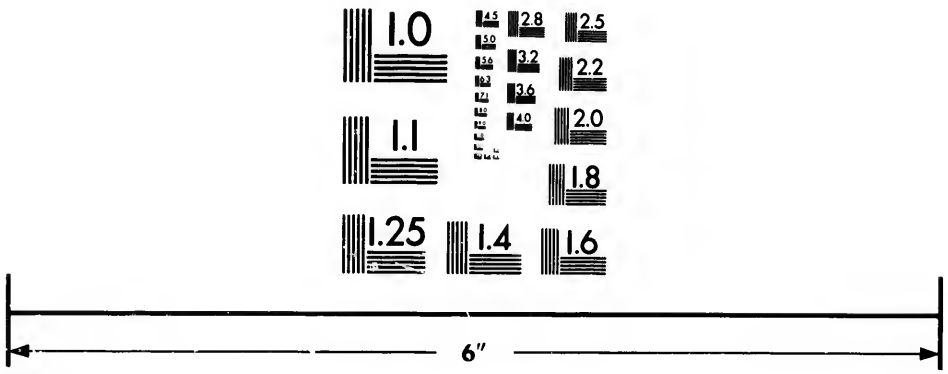

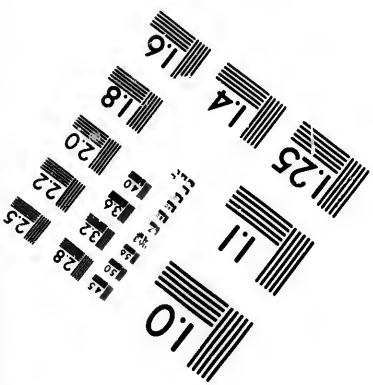

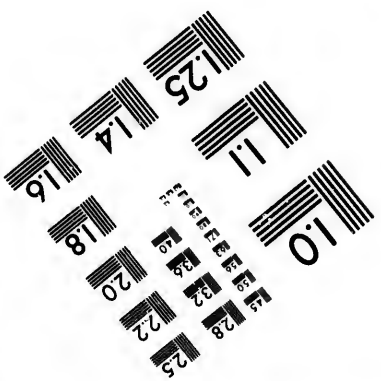

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SIX MONTHS' MEDICAL EVIDENCE

IN THE

CORONER'S COURT OF MONTREAL.

BY

WYATT JOHNSTON, M.D., MONTREAL,

AND

GEORGE VILLENEUVE, M.D., MONTREAL.

(*Reprinted from the Montreal Medical Journal, August*, 1893.)

SIX MONTHS' MEDICAL EVIDENCE IN THE CORONER'S COURT OF MONTREAL

(JANUARY TO JUNE, 1893).*

BY WYATT JOHNSTON, M.D., MONTREAL. AND GEORGE VILLENEUVE, M.D., MONTREAL.

At the commencement of the present year, when, on account of his long experience in criminal matters, our present energetic and capable coroner was appointed, it was intended that his duties were to be purely judicial, and that medical questions in connection with coroners' inquests were to be investigated by a physician specially appointed for that purpose, whose duties should correspond with those of the "coroners' physicians" or "medico-legal experts" of other countries.

These duties having been entrusted to one of the writers since the beginning of the year, or, in case of absence, to the other, we think it well now to review the medical evidence given before the Coroner's Court during the past six months under the new system.†

We wish first to express our thanks to the members of this Society, and to the medical profession in general, for the cordial support they have given, from first to last, in effecting some much needed changes in connection with Coroners' Court inquests. We also wish to thank the members of the Provincial Government for the great interest they have taken in the matter and the uniform courtesy with which all suggestions concerning it have been received.

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* Read before the Montreal Medico-Chirurgical Society, June 23, 1893.

† As the present paper is chiefly of a general nature it seemed preferable to make our communication a joint one, although most of the evidence has hitherto been given by one of us (Dr. Johnston).

A beginning has already been made in the direction of placing matters concerning medical testomony at inquests on a different footing, but owing to some technical difficulties in arranging the duties of this new medico-legal office, we have only been consulted in a relatively small proportion of the total inquests. For this reason a communication limited to our own personal observations would not be fairly representative of the evidence in the Coroner's Court, so we have, in addition, supplemented our own observations by studying the testimony given by medical witnesses in cases where we were not consulted. All internal post-mortem examinations ordered by the coroner or jury were made by the expert, but as autopsies are only called for in a small number of cases, many of the inspections of the body, which constitute the majority of the examinations, were made by other medical men. A radical change has not yet been found feasible under the present law, though I may state that the present coroner is strongly of opinion that autopsies should be performed in every case where it is necessary to hold an inquest. Our information as to medical testimony given at inquests where we were not present has been obtained from the records of inquests deposited at the Crown and Peace Office.* These documents are at all times accessible to any one who may wish to see them, and therefore the information obtained from them is not of a privileged or secret nature.

During the six months ending June 30th, 1893, 202 inquests have been held in the Montreal district, out of which we have been called to give testimony in 70. During the same period 26 autopsies have been ordered, all of which have been entrusted to us.† In the remaining inquests, 130 in number, the examinations were made by 68 different medical men. Except in specially important cases the expert does not examine the bodies of those who have been seen during life by other medical men.

It seemed expedient in the present paper to treat the medi-

* We have to thank Mr. C. Doucet, Clerk of the Crown and Peace Office, for kindly aiding us in consulting the records.

† We take this opportunity of thanking Coroner McMahon for the uniform courtesy and consideration which he has shown us in our capacity of experts, which has made our work under him specially agreeable.

cal evidence in a general statistical way only, reserving for future and more scientific papers the details of the cases.

Comparing the work of the Coroner's Court with that of two years ago, in 1890 and 1891, we find that then about 240 inquests were annually held in the district of Montreal, and in these 12 autopsies were made, so that at present the number of inquests is nearly twice as great, and that of autopsies is about four times as great as under the old system.

Taking the population of the district of Montreal as 300,000 (which is well below the mark), we find that 0.8 inquests were then held per year for every 1,000 inhabitants. In Philadelphia 2 per 1,000 are held annually, and in Liverpool 1.7 public inquests per 1,000, and as many more coroner's private inquiries, so that the number of inquests in Montreal is relatively small as compared with other large cities, the frequency for the past half year being at the rate of 1.32 per annum.

Here, as elsewhere, of all the cases brought to the notice of the coroner, only a few finally prove to be medico-legal. In Liverpool, of 900 inquests held in 1892, only 4 verdicts of murder and 8 of manslaughter were found, or in other words, less than 1.3 per cent. of the suspicious deaths were found to be due to criminal violence or negligence.* In South-west London, out of 20,000 inquests during 20 years, there were 8 verdicts of murder, 14 of manslaughter, and 59 of infanticide, or 0.4 per cent. of criminality.†

That so much material must be sifted in order to detect criminal cases affords an explanation of the fact that we have no startling or sensational tragedies to report to you to-night. Possibly if more autopsies had been held more crime would have been detected, and certainly in two cases the circumstances seemed sufficiently suspicious to warrant us, as medical men, in suspecting foul play, although as the juries did not think it necessary to order autopsies in either of them no positive statement can be made on this point.

In the Province of Quebec, as we know, except in exceptional cases, it is the practice only to hold autopsies with the consent

* F. W. Lowndes' evidence before committee on death certification, 1893.—*British Med. Journal*, May 6, 1893, p. 962. † Braxton Hicks.—*Ibid.*

of a majority of the jury. Why a juryman should be supposed to know better than the coroner or the medical witness where an autopsy is needed is a matter which we cannot pretend to explain, but, such being the law, there is at present apparently no remedy but patience.

In Montreal to hold 240 inquests annually meant that 2,880 jurymen must be empanelled each year to consider the evidence. Were the coroner permitted to order an autopsy when necessary to establish the cause of death, not only would the entire medical evidence be ready for the jury at its first session, but as in three-fourths of the suspicious deaths natural causes of death could be demonstrated, three-fourths of the inquests would be prevented, in other words, 2,160 of the citizens of Montreal would annually escape the annoyance of having to sit on juries in order to bring in verdicts of death from natural causes, and the attention of the coroner and his juries would be concentrated on the few really criminal cases. Unfortunately we learn from the very highest authority that the holding of autopsies in order to prevent inquests is illegal and contrary to the spirit of the British criminal law. This is a matter to be regretted, as it causes much loss of time and unnecessary expense.

The British Coroners' Act of 1887, however, empowers the coroner to order an autopsy to be performed before the jury is summoned; were this the case here much of the jurors' valuable time would be saved in the minor cases.

Education of Jurymen.—Out of 1,200 jurymen empanelled for a series of 100 consecutive inquests 879 signed their names and 321 made their marks. The percentage that signed is 73.2, and I am informed by Mr. Biron, Coroner's Clerk, that a number more were able to write but refrained from doing so; some from modesty, others for fear of soiling the paper. We may assume that about 80 per cent. of the jurymen were able to write, but from the appearance of the signatures I should judge that less than 50 per cent. were persons who had written sufficiently often to give any character to the handwriting. Some of the most sensible verdicts were rendered by jurors, none of whom could write, and some of the most absurd ones bore the autographs of all twelve jurors.

Inquests in past Six Months.—In the 202 inquests held from January to June, 1893, the following verdicts were returned. We have placed in separate columns the cases in which we were consulted as experts, and also those in which autopsies were made.

In 88 cases out of 202 (that is to say, 43 per cent.), the investigations were what is known as *ex-parte*, or held by the coroner without summoning a jury. In these cases the suspicions of crime were either very slight or shown to be groundless upon preliminary inquiry.

The regular fees were not paid to medical witnesses in these cases, except in three instances where the medical expert was consulted; in the remainder the testimony was informal and not taken under oath. The practice of holding these *ex-parte* inquests appears to have been discontinued, none being recorded in the month of June. In other words, public records are not kept of the cases in which, upon inquiry, the coroner does not find cause for summoning a jury.

Table showing relative frequency of inquests before coroners, of coroner's inquiries without juries, and of autopsies, for the half-year from January to June, 1893. The percentage of inquests in which autopsies were ordered is also given for each month. This has increased from 7.3 per cent. in the first quarter to 14.6 per cent. in the second.

Months, 1893.	Inquests before Jury.	Inquiries without Jury,	Total number of deaths investigated by coroner.	Autopsies.
January	9	14	23	3 (13 per cent.)
February	11	24	35	2 (6 per cent.)
March	14	21	35	1 (3 per cent.)
April	13	15	28	6 (21 per cent.)
May*	22*	14	36	4 (11 per cent.)
June	44	0†	44	10 (22 per cent.)
Total	113 (57 per cent.)	88 (43 per cent.)	201	26 (12.8 per ct.)

*One inquest in a case of arson is omitted, as having no bearing upon medical evidence.

† Since the 1st of June no public record is made of the facts elicited by coroner's inquiry in the cases where it is not necessary to summon a jury.

Table showing the verdicts of the Coroner's Court for the District of Montreal from January to June, 1893, including the conclusions arrived at in *ex-parte* inquests held without jury in minor cases; these are also placed in a separate column:—

Verdicts.	Ex-parte. No Jury.	Expert called.	Expert not called.	Total.	Autopsies.
I.—Homicidal Deaths.					
Manslaughter	..	1	1	2	1
Jury undecided—Manslaughter or Justifiable Homicide	..	1	..	1	1
Infanticide	..	1	..	1	1
Total	0	3	1	4	3
II.—Suicidal Deaths.					
By Paris Green	..	2	3	5	2
Rough on Rats	..	1	..	1	1
Sulphate of Copper	..	1	..	1	1
Cutting Throat	..	..	2	2	..
Hanging	..	1	..	1	..
Drowning	..	1	..	1	1
Firearm	..	1	..	1	0
Total	0	7	5	12	5
III.—Accidental Deaths.					
Fall into Hold of Ship	..	1	..	1	..
Railway Accident	..	7	3	10	1
Street Car "	..	1	3	4	..
Elevator "	..	3	..	3	..
Carriage "	..	1	2	3	1
Runaway Horse Accident	..	2	..	2	..
Tobogganing "	..	1	..	1	..
Machinery "	..	..	1	1	..
Firemen on Duty	..	1	2	3	..
Others Suffocated by Smoke	..	..	1	1	..
Fall of Building	..	2	..	2	..
Fall of Derrick	..	2	..	2	..
Fall down Stairs	1	..	2	2	..
Explosion of Gas	..	1	..	1	..
Blasting Accident	..	..	1	1	..
Explosion of Water Pipe	1	..	1	1	..
Burning	4	4	5	9	..
Scalding	..	..	1	1	..
Inhalation of Gas	..	1	3	4	..
Choked by Food	2	1	2	3	..
Hæmorrhage Umbilical Cord	..	1	..	1	1
Over-Laying (Suffocation of Infant in Bed)	1	..	1	1	..
Accidental Drowning	1	7	4	11	1
Administration of Chloroform	..	1	..	1	1
Sudden Death from Lead Colic	..	..	1	1	..
Poisoning by Morphia	..	..	1	1	..
" Soothing Syrup	1	..	1	1	..
" Chlorodyne (Anticholerique)	1	..	1	1	..
Insolation (Sunstroke)	..	..	1	1	..
Exposure	..	1	..	1	..
Paralysis from Exposure & Intemperance.	..	1	..	1	..
Total	12	39	37	76	5

Verdicts.	Ex-parte. No Jury.	Expert called.	Expert not called.	Total.	Autopsies.
IV.—Deaths from Natural Causes.					
1. *Nervous System :—*					
Apoplexy	3	..	3	3	..
Cerebral Hæmorrhage	..	2	..	2	2
Abscess of Brain	..	..	..	1	1
Congestion of Brain	1	..	1	1	..
Meningitis	..	..	1	1	..
Paralysis	1	..	2	2	..
2. *Circulatory System :—*					
Heart Disease	16	1	18	19	..
Fatty Degeneration of Heart	1	..	1	1	..
Aneurism	1	..	1	1	..
Syncope of Heart	1	..	1	1	..
Heart Disease aggravated by Intemper'nce	..	..	1	1	..
Syncope of Heart caused by Intemperance	..	..	1	1	..
Cardiac Asthma	1	..	1	1	..
3. *Respiratory System :—*					
Asphyxia	1	..	1	1	..
Pneumonia	3	4	3	7	3
Congestion of Lungs	1	..	2	2	..
Pneumonia or Heart Disease	1	..	1	1	..
Inflammation of Lungs	1	..	1	1	..
Pulmonary Embolism	..	..	..	1	1
Hæmoptysis, Phthisis	1	..	..	1	1
Consumption, Phthisis	8	..	9	9	..
Capillary Bronchitis	..	..	1	1	..
Pulmonary Apoplexy caused by Emotion	..	..	1	1	..
4. *Digestive System :—*					
Inflammation of Bowels	1	..	1	1	..
Cholera Morbus	1	..	1	1	..
Diarrhœa	..	..	1	1	..
Peritonitis	2	..	2	2	..
Cancer of Liver	1	..	1	1	..
Hepatic Colic	1	..	1	1	..
Jaundice	1	..	1	1	..
5. *Urinary System :—*					
Urethral Fever	2	..	2	2	..
6. *Generative System :—*					
Puerperal Fever	1	..	1	1	..
Metroperitonitis	1	..	1	1	..
7. *Other Diseases :—*					
Purpura	1	..	1	1	..
Dropsy	1	..	1	1	..
Infantile Debility	..	1	1	2	..
Senile "	2	..	3	3	..
Stillborn	..	3	..	3	3
Sudden Death from Lead Colic	..	..	1	1	..
Tumour	1	..	1	1	..
Incurable Disease	1	..	1	1	..
Intemperance	..	1	..	1	..
Total	59	15	70	85	11

Verdicts.	Ex-parte. No Jury.	Expert called.	Expert not called	Total.	Autopsies.
V.—Open Verdicts.					
Sudden Death—No cause assigned	3	..	3	3	..
Unknown Causes	8	..	8	8	..
Natural Causes	5	..	6	6	..
Unknown Natural Causes	..	2	1	3	..
Canadian Cholera or Poisoning	..	1	..	1	1
Found Drowned	..	3	..	3	1
Total	16	6	18	24	2
Summary.					
Homicides	0	3	1	4	3
Suicides	0	7	5	12	5
Accidents	12	39	37	76	5
Natural Death	59	15	70	85	11
Open Verdicts	16	6	18	24	2
Total	88	70	131	201	26

Inquests without Medical Evidence.—In 22 of the cases, or nearly 11 per cent., no medical testimony at all is recorded, the verdicts being as follows:—

Accidents.		Natural Causes.		Open Verdicts.	
Burned	1	Consumption	2	Sudden Death	2
Railway Accident	1	Pneumonia	2	Natural Causes	1
Accidentally Drowned	2	Heart Disease	2	Unknown Causes	5
Inhalation of Gas	1	Pneumonia or Heart Disease	1	Unknown Natural Causes	1
		Debility	1		
	5		8		9
				Total	22

The advisability of saving physician's fees in these cases, if any grounds existed for making an enquiry at all, appears questionable; certainly, in those cases where death was not due to accidents attested to by reliable eye-witnesses, it hardly seems prudent to act entirely without medical testimony. The fact that in 53 per cent. of these cases open verdicts were the result, speaks for itself.

Upon looking at the *ex-parte* inquiries it will be seen that out of a total of 88, 59 (*i.e.*, 67 per cent.) were in connection with cases where death appeared to be due to natural causes. In other words, two-thirds of these cases were essentially of a

medical nature. If we exclude the 12 accidents where, of course, the nature of the violence was obvious and only the question of responsibility remained to be decided, we find that out of the 66 remaining cases 89 per cent. were assumed to be due to particular diseases. As the remaining open verdicts in 16 cases were probably also of a medical nature, we find only 12 cases out of the whole 88, or less that one-seventh, were what might be called non-medical. No better proof of the necessity of expert medical work in minor cases in the Coroner's Court could be afforded than is shown by this analysis of the material.

Taking the entire number of cases dealt with, 202, and deducting 24 open verdicts, 1 case of arson and 76 accidents where the nature of the violence which had caused death was obvious in almost every case, we have 100 cases left. In these, 85 verdicts of death from natural causes were returned, making it evident that of 100 deaths under circumstances arousing the coroner's suspicions, 85 per cent. were essentially medical in nature, and therefore required skilled medical investigation to decide their real nature, in addition to the medico-legal study of the 15 really medico-legal cases remaining.

In several of the suicides, autopsies were ordered to establish whether the patient was of unsound mind, and in one case fairly positive proof of this was obtained, large symmetrical cystic spots of softening being found in the brain.

In the cases of suspected infanticide autopsies were invariably performed, the coroner rightly deciding that the proof of the child having breathed was indispensible. Under the old régime of a few years ago autopsies were never held in these cases, and frequently even the inquest was omitted.

In one case of death after a private surgical operation professional questions of a sufficiently delicate nature threatened to arise, but the friends having come to the conclusion that the surgeon had acted for the best withdrew their demand for an investigation, much to our relief.

Pneumonia was found to be a frequent cause of death under suspicious circumstances. In one case where a verdict of death

from alcoholism had been rendered, and in consequence burial in consecrated ground was denied, a private autopsy showed that pneumonia was the cause and the restriction was withdrawn.

We do not think it well that private autopsies should be held in such cases, as it would appear to be only just that the Government should investigate the matter fully if the friends are not satisfied with the verdict, even if there is no crime. This would be decidedly more dignified than having the finding of the jury repeatedly shown to be wrong by the results of private autopsies afterwards made. In France an appeal of this kind always receives careful official consideration.

In one of our cases classed as debility and one of pneumonia, both in children, very clear evidence was forthcoming of neglect on the part of the parents. A number of other instances of this have come under the notice of the coroner. In these cases it is impossible to proceed in the absence of the evidence given by autopsies, as if the child really suffers from an incurable organic disease, and the life could not have been saved by ordinary medical and other care, criminal negligence could hardly be proved.

It may be remarked in this connection that our present law, which makes parental neglect amount either to manslaughter or nothing, makes it impossible to get incriminating verdicts from the juries. In England offences of this kind may be dealt with as misdemeanors and a moderate fine or short imprisonment inflicted after a summary trial. Such a change in our criminal law would be the means of saving many young lives, and we would commend it to the attention of the Society for the Protection of Women and Children, or to our Citizens' League. We are glad to learn that a society is being formed to deal with this matter.

It will be noticed that no cases of criminal abortion were brought to light, although we know that they are frequently performed in Montreal. We have been told on reliable authority that competition has reduced the charge for this operation in certain quarters to ten dollars. Were an autopsy performed in all cases of suspicious death it is not unlikely that some deaths

now assigned to natural causes would prove to be cases of this character. One of us knows of a case which happened some years ago and where a woman died of severe uterine hæmorrhage under most suspicious circumstances. In this case heart disease was stated to be the cause, upon the strength of an external examination.

In none of the cases of poisoning by gas was any proof of the presence of carbon monoxide asked for. One of the favourite verdicts still continues to be death from exposure. We have examined two of these externally and reported the absence of external signs of fatal disease and the necessity of an autopsy being held, but none was ordered in either case.

Coming finally to 20 verdicts of "natural causes" and "unknown causes" these might equally well have been rendered in at least 50 other cases, so far as can be learned from the records. We see no objection to the verdict of unknown causes being rendered, but how, when the cause is unknown, it can be stated to be natural, is a matter of which the explanation must be left to the juries who have found this verdict. A fine instance of the perspicacity of a jury was recently given in a case where everything pointed to poisoning by arsenic or corrosive sublimate. After the inquest was over, a private analysis found evidences of the presence of arsenic in this case, and the possibility of cholera morbus as a cause was definitely excluded at the autopsy. The jury found, "that the deceased came to his death either by cholera morbus or by poisoning. It is not possible, without making a chemical analysis, to determine which of these causes is the true one, and in the present case is of no consequence." In the words of Ruddigore, "It really doesn't matter!"

In another recent case where an individual had disappeared for two days, at the end of that time his dead body being found locked up in a cottage, with the furniture strewn about and overturned and with marks of violence about his face, the verdict returned on the strength of the medical evidence was death from a convulsion due to chronic lead poisoning. This was one of the cases in which we were not summoned to examine the body.

In the case of bodies which have lain some time in water, putrefaction sets in with extreme rapidity. We have seen bodies freshly removed from water, and in which much could be made out by an examination made at once, putrify so rapidly that in a couple of hours they had become quite unrecognizable. Our only inconclusive autopsies were held upon drowned bodies which had thus putrefied.

The only satisfactory means of preventing this is by having a refrigerating chamber similar to that in use at the Paris Morgue, where bodies are promptly placed in a dry, cold atmosphere of about 5° Fahrenheit for 24 hours, and afterwards preserved indefinitely in a cold chamber kept at about 25° to 35°. This latter is furnished with a glass front and placed in a passage accessible at all times to the public. If necessary the bodies may be kept years in this manner, and may not only be identified at the end of that time, but if gradually thawed out an autopsy may be performed, with results almost as conclusive as on the fresh cadaver. In this way there is no nuisance or danger to health.

Comparing the results of the past six months with a period of six months in 1890, we find that then in a half-year, out of 123 inquests, in 16 cases the verdict was simply "found dead," and in not one of these was an autopsy made; out of 7 cases of cerebral apoplexy no autopsies were made, and for one verdict of "cerebral congestion" no medical testimony was taken. "Synecopy" of the heart was responsible for 7 deaths, no autopsies being ordered, and pulmonary congestion for 4 cases, of which 3 were in the case of unknown persons found dead—no autopsies. One case died of a "broken heart," and one of "angelis pectoris," 9 were found drowned, 1 accidentally drowned, and in 8 cases medical testimony was not called for.

To a certain extent, "*nous avons changé tout cela*," but even during the past six months some medical opinions have been given which is sufficiently remarkable. I mention a few only. "Sudden death from hepatic colic" in a child three days old, and without jaundice, is odd, to say the least. "Congestion of the brain caused by fatty degeneration of the heart"

is also an original idea, and worthy of a niche in history. Sudden death from "metro-peritonitis" in a patient who seemed to be in perfect health up to the moment of her death, is an observation which it falls to the lot of very few to make. In one case, when the patient complained of pains in the region of the stomach for several days before death, and had a considerable hæmorrhage on the night of his death, we find the statement that death "*must* have been due to heart disease or pneumonia." In half of the cases where death is stated to have been due to heart disease, the medical men had never seen the cases during life. In no heart cases is any attempt made to note whether any objective signs of heart failure, *e.g.*, dropsy, clubbed nails, etc., were to be seen on the body. In one case, "congestion of the lungs" was diagnosed post-mortem from external examination by a physician who had never seen the man alive, but the secret of the process is not imparted.

In one case, where a death occurrred in a public institution, and the patient had been ill several days without the doctor having seen him, the jury are careful to state that "no blame is to be attached to the authorities, but, on the contrary, they deserve praise for the good care they took of the deceased." ("*Au contraire, des louages pour leur bon procédés à l'égard du défunt.*") This was certainly very considerate of the jury, but politeness may be carried too far.

In the case of a woman who died suddenly, death should hardly have been put down to heart disease when nothing more definite than "oppression" had been complained of during life, although a doctor called in after death "had no objection to believe" that she died of this favourite lethal agent of coroners' courts. The only reason seems to be that the family were respectable people (*des braves gens.*) Something more tangible should be forthcoming as a proof of the cause of death when the imposing machinery of a Coroner's Court has once been set in motion, even in the case of the most respectable families. The same physician had equally little objection to believe the same thing in another case on equally slender grounds.

In this matter of determining the cause of death, coroners are placed in a very difficult position, because the law does not require them to find out the exact cause, but merely to see if a crime has been committed. To incur expense which does not lead to the detection of crime is considered one of the cardinal sins. That neighbours' testimony as to the character and habits of the suddenly deceased is of great value in affording what in law is called a "presumption" against crime there can be no doubt, and from study of the records I can testify to the great pains which our own coroner always takes to investigate this side of the question. In all the records the following points are carefully covered by the non-medical testimony :—

1. Marks of violence absent.
2. No external signs of poisoning.
3. Deceased stated to have eaten and drank only those things taken without ill effect by others.
4. Deceased did not, from conversation or behaviour, lead the friends to suppose that suicide was contemplated.
5. Deceased not known to have enemies.

Now, these points, important as they are, do not prove a natural death. The utmost interpretation which could be put upon them is "death from unknown causes, without suspicion of crime." This is better than attributing the death to unspecified "natural causes," and much better than ascribing it to an imaginary heart disease which probably does not exist in the majority of cases.

The laity always suspect poison when death is sudden, but the medical profession knows that but very few poisons exist which can cause people to drop dead. The external evidence of poisoning is usually absent, or at least has not been present in any of the four cases we have examined. Absence of statements as to intended suicide would not seem to be of much value, judging from the fact that in only one of the 12 cases of suicide which have been investigated had any statement been made by the victims of their intention. People who *talk* suicide seldom commit suicide. The great disadvantage of all this sort of evidence is that it is mostly obtained from those who may be

interested. As Coroner McMahon has often pointed out, people in large cities know very little about the doings of their neighbors, the conditions being quite different from those obtaining in country places. When death from unknown causes satisfies the ends of justice, well and good; but for any more explicit cause of death it would be simpler, instead of trying to exclude the many possible causes which are absent, to find out the one real cause.

We have a great admiration for juries in general, and admire the spirit of fairness invariably shown by our Canadian juries in particular, when human interests are really at stake. Their sympathy for the wronged and unfortunate is worthy of all praise, and they stand in no awe of the corporations which oppress us, but as an institution for finding out causes of death they are not an unqualified success.

When the cause of death is not clear without an autopsy we have made it our practice simply to state that fact. This has had the result, not of an increased number of autopsies, but in an increased number of deaths from unknown causes—presumably, visitation of God. We live in hopes that these numerous "visitations of God" may tend to hasten a millenium when autopsies will be more frequent.

The first and most important duty of the medical witness is to ascertain the cause of death, and it is satisfactory to know that of the 26 autopsies held the cause of death could be definitely stated in every case except three, two where the bodies had remained a long time in the water and become greatly decomposed, and one shown to be due to poison. Even in these unpromising cases, however, the important medico-legal points could be determined at the autopsy. Presuming that the same precision as to the cause of death would have been attained in the remaining cases, we may assume that had autopsies been made at all the inquests about 180 deaths out of 201 would have been satisfactorily explained.

In 14 accidents, where external examinations only were allowed, the cause of death could only be made out satisfactorily in 6, 2 having broken necks, and 4 having the skulls completely

crushed in. In the remainder we confined our statement to the fact that sufficiently severe external injuries existed to be compatible with the presence of fatal internal injuries not evident from external examination.

When no accident had taken place the external examination gave almost uniformly negative results. In 16 such cases we confined ourselves to the statement that it was impossible to state the cause of death from the external examination, and that if the determination of the cause of death was necessary an autopsy would have to be made. In no case did we make any attempt to guess at the probable cause.

In following strictly this rule we were guided by the principles laid down by Brouardel, probably the greatest of all living medico-legal experts, that the duty of the expert in medico-legal cases is to state either that a certain fact is proved, or that it is not proved, and to show sufficient facts in support of any conclusion drawn to make the testimony amount to a demonstration. Demonstrations, not opinions, are what is wanted. In no case is a witness in medico-legal cases justified ingiving his opinion unless he can support it by statements of acts which establish its correctness. The great reputation now enjoyed by the French school of legal medicine is as much due to their strict adherence to this principle as to the brilliancy of their methods and the clearness of their logic.

Unfortunately the necessity for this scientific attitude is not yet appreciated by many of those who give evidence before coroners. If they do not know the cause of death they feel bound to hazard a guess and appear to know all about it. Much of the loose medical evidence given before coroners is due to the pertinacity with which juries will persist in asking whether the cause of death may not probably or possibly be due to such and such a thing. If the least admission is made the will promptly render a verdict to that effect, for which the medical witness becomes virtually responsible, though fully aware that there are a dozen other causes, any one of which may be the right one. The only resource of the medical witness is to refuse to say more than is established by the facts which have come

under his notice. He is under no obligation to say what *might have been*, but only what *was* the case, if he can. "Of all sad words, the saddest are these—'it might have been,'" when they form part of medical evidence before coroners; and to this and unfounded medical testimony rather than neglect of juries must be held responsible for much that is regrettable in the past six months' evidence.

We have wondered not a little in reading the records of inquests why it is that medical witnesses so seldom make a written statement of the facts which they observe, and of the conclusions which they have drawn from them. In the past six months, apart from our own testimony, this does not appear to have been done in a single instance; and yet it would form the greatest safeguard a medical man could have against any future charge of giving a wrong opinion, as at any future time by consulting the record it could be shown why that particular opinion was given. This is the universal practice in other countries, and witnesses are obliged by law to state the facts upon which they form their opinions. There is no need for any reserve or hesitation in stating facts. Personally, in following this system we have found that time is saved and cross-examination shortened if a written report is submitted. We can confidently recommend this plan to others.

We constantly find that too little time is given to prepare a report, because the jury has to meet at a certain time. In France a physician charged with an "expertise" is given as a rule a week in which to prepare his report, unless the matter is specially urgent, and a clear 24 hours should certainly be allowed.

It should be borne in mind that the medical opinion in an ordinary death certificate, where no grounds for suspicion existed, is only needed for general statistical purposes, and therefore *approximate* accuracy in a large number of cases suffices. Where, on the other hand, suspicion of a crime exists, what is wanted is, as nearly as possible, absolute accuracy in the one particular case. Slight inaccuracies in a mass of general statistical information tend to correct themselves. Serious inaccuracy in a single important criminal matter is quite inexcusable.

Great inconvenience is caused by the absence of an official clerk or secretary to take notes of the autopsy, so that the physician could always describe appearances while they were before his eyes. In other countries this is always attended to by a special official. Apart from the physical labour of writing out a long report, there is great danger that facts will be forgotten and error creep in if the memory is trusted to. Besides this, in the act of description new points are suggested for investigation which otherwise may be forgotten till it is too late.

Another defect is the absence of any system by which written instructions as to the nature of the information wanted is furnished the expert. In France and Germany a definite series of questions are asked the expert, and he thus knows what is expected of him and can give full information upon the vital points of the case. Official regulations are also greatly needed as to the technique to be followed in making an autopsy. Were there any instructions as to the advisability of some of the clothes of the deceased being removed before the autopsy is considered finished, we should not recently have heard of undertakers discovering bullet wounds unnoticed by the medical experts during their post-mortem.

Another important matter is that arrangements should be made by which the expert shall see the body before it has been disturbed. In six months' work we have hardly seen a single body in the state and with the conditions and surroundings which existed at the time of death. It is almost always transported, undressed, placed in a coffin, or otherwise interfered with. In some instances embalming had even been done by the undertaker.

The chief complaint against the Coroner's Court in the past has been in regard to want of precision respecting the causes of death assigned. We have seen that in the past six months a material improvement in this respect has taken place, and a larger number of the causes of death are supported by some tangible evidence. This improvement, however, has been limited to those cases where autopsies have been performed, and until this is done in every case where inquests are held it

is not likely that the verdicts of coroners' juries will be taken as representing the truth, the whole truth and nothing but the truth, about the deaths which they investigate. Apart from accidents attested to by eye-witnesses, about 90 per cent. of all the cases coming before the coroner are cases of natural death, and without the control afforded by the results of post-mortems and the counsel of a medical expert, it is not reasonable to expect a coroner having a legal training only to estimate the amount of credence to be attached to all the diverse medical evidence given in these cases. Taylor wrote, over thirty years ago: "As a general rule, it may be stated that inquests in which there is no medical examination of the body are a vain mockery, and the sooner the public becomes imbued with that idea the better it will be for society." Whether this still holds good of Montreal inquests may be judged from the results we have given of the past six months' work.

It is our experience that where an external or partial examination only is made the results are nearly or quite valueless. Hence, in cases where no autopsy is performed the investigation cannot be regarded as a serious one from a medical standpoint.

Although the number of autopsies held shows an increase as compared with former years, yet, even now, in 200 inquests only 26 autopsies were held, or, in other words, only 12 per cent. of the cases of suspicious deaths received serious medical investigation, although nominally over 200 examinations of the body were made (and paid for.)

It may be stated that in 76 cases of acccident, forming 38 per cent. of the total, the death was obviously due to an accident attested to by eye-witnesses, and that a medical examination was superfluous. If it was superfluous, why was it made at all? If it was necessary, why was it not ordered to be made thoroughly? Why is it that autopsies are often hurriedly done, "while you wait," because the jury are in a hurry?

It appears that further reform in this matter is urgently necessary, and we may conclude by mentioning briefly the directions in which it should be made:—

1. Autopsies should be performed in all cases of suspicious or sudden death where the cause of death is doubtful.

2. The coroner should be allowed to decide whether an autopsy is necessary, and to order it to be performed, if advisable, before the jury meet. (English coroners, under Vic. 50 and 51, cap. 71, are allowed full discretion as to the ordering of autopsies and the time when they shall be held.)

3. In medical testimony, the observed facts upon which opinions are based should always be stated, preferably in writing.

The improvement which has been effected already is a hopeful indication for the future, and we hope in the report of the next six months' work to be able to show a decided advance over that of the past half year, which may be regarded in the light of an experiment.