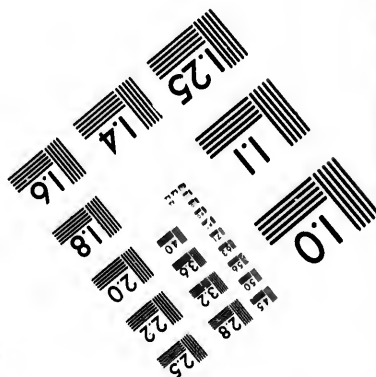
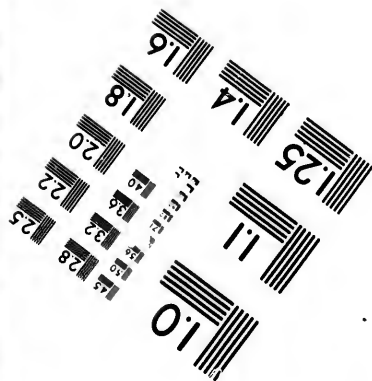
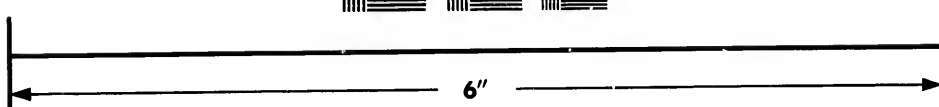
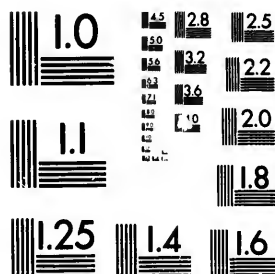


IMAGE EVALUATION TEST TARGET (MT-3)



Photographic Sciences Corporation

**23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503**

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1985

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

- ☐ Coloured covers/
Couverture de couleur
- ☐ Covers damaged/
Couverture endommagée
- ☐ Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/
Le titre de couverture manque
- ☐ Coloured maps/
Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- ☒ Bound with other material/
Relié avec d'autres documents
- ☐ Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distortion le long de la marge intérieure
- ☐ Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- ☐ Additional comments:/
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- ☐ Coloured pages/
Pages de couleur
- ☐ Pages damaged/
Pages endommagées
- ☐ Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- ☒ Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- ☐ Pages detached/
Pages détachées
- ☒ Showthrough/
Transparence
- ☐ Quality of print varies/
Qualité inégale de l'impression
- ☐ Includes supplementary material/
Comprend du matériel supplémentaire
- ☐ Only edition available/
Seule édition disponible
- ☐ Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

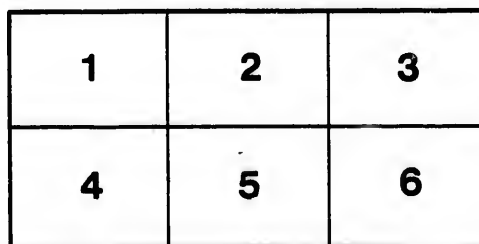
Medical Library
McGill University
Montreal

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol → (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

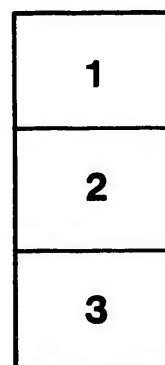
Medical Library
McGill University
Montreal

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole → signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.



A NEW MORGUE FOR THE CITY OF MONTREAL.

A NEW MORGUE FOR THE CITY OF MONTREAL

To the Editors of THE MONTREAL MEDICAL JOURNAL.

DEAR SIRs,—We have taken the liberty of suggesting the arrangements necessary, from a medical point of view, in connection with a morgue for the city of Montreal, as the matter keeps cropping up from time to time in the City Council, and no very definite idea appears to exist as to what is needed.

One of us recently had an opportunity of visiting the morgues of the following cities: Boston, New York, Philadelphia, Baltimore, Cincinnati, St. Louis and Chicago, for the purpose of studying the arrangement and construction of buildings of this description, and the other has taken occasion to do the same with the morgue at Paris.

The general arrangement, apart from medical matters, is a matter into which it would be out of place for us to enter fully here, as it does not come within our province as physicians. We will therefore simply state that it should be centrally placed and be in direct communication with, or form part of a police station, in order that all matters concerning the guarding and identification of bodies shall be in the hands of the police.

In Montreal the morgue would naturally have to contain a coroner's office and a court for holding inquests, with a separate room for witnesses. Some provision for the safe keeping of the records is also necessary. There should be an apartment for the janitor or guardian of the building.

MEDICAL ARRANGEMENT.—The essential requirements are (1) the mortuary, (2) the room for autopsies, (3) the laboratory.

1. *Mortuary*.—A mortuary is required for keeping bodies

during the pending of a medical examination or inquest and for keeping unknown bodies as long as may be necessary for identification. As this must be done without danger to health and without creating a nuisance, some means must be employed to prevent the decomposition of the bodies.

The system of cold storage in a dry atmosphere at about the freezing point is the only means which has been found suitable for this purpose elsewhere and has the advantage of costing very little, after the apparatus has been constructed.

A cold storage chamber suitable for the requirements of Montreal could be made at a cost of about \$1,200 by building a chamber with double wooden walls, the ceiling consisting of a galvanized iron tank filled either with brine cooled artificially, or simply with a mixture of ice and salt. By this means the temperature in the air space below can be maintained at the freezing point for an indefinite time and all danger of the nuisance and danger to health arising from putrefaction avoided.

In Montreal, where ice is cheap and plentiful, its use would be probably found more economical than that of artificial means of obtaining cold, especially if the ice was stored on the premises. In any case, if it was subsequently found advisable to substitute some artificial process, such as the ammonia distillation or expansion, no further change would be required than simply fitting the expansion tubes into the tank. By either artificial or natural cold the cost ought not to exceed a couple of hundred dollars per year. The use of cold would only be necessary during the period from May to November: during the remainder of the year sufficient cold can be obtained from the outside air by having a flue opening outside.

Some provision for refrigerating is absolutely essential for medico-legal purposes in Montreal, since during the summer, especially in the case of drowned bodies, the effects of putrefaction make identification uncertain and the results of autopsy unreliable, under ordinary conditions.

in the course of a few hours. In addition, where it is necessary to preserve organs for a time, pending inquiries as to the necessity of a chemical analysis, putrefactive alkaloids are produced in them which tend to confuse the results of the chemist and at the same time the poisonous alkaloids tend to become destroyed.

Whether it is desirable to make a place where the bodies of unknown persons are kept, a place of public show, which any person shall be allowed to visit through morbid curiosity, or whether the view of such bodies should be restricted to those who are professionally or personally interested in their identification, is a question which can best be decided by the police. There is much to be said on both sides, but certainly the less the idea of a morgue is made repugnant to the general public the better. In any case means should be taken to secure that bodies which have been identified shall not be needlessly exposed, and that as far as possible inquirers shall only be obliged to see such bodies as correspond in sex, age, etc., with the individual whose identity it is sought to establish.

By keeping a description of the body, clothing, etc., together with a photograph, in the coroner's office, it could be at once stated whether any of the bodies in the morgue corresponded with those sought. Photographs suitable for this purpose can readily be taken with an ordinary Kodak camera and can be printed at a cost of only a few cents each. Such photographs would, in addition, form a permanent proof of the appearance of the body if it finally had to be buried unidentified.

The chamber for viewing these bodies should be so placed as to be accessible without interfering with the other parts of the morgue. It could be illuminated either by daylight or by electricity, in which latter case the consumption of ice would be decidedly less.

In connection with the mortuary there should be a room in which undertakers could lay the bodies in coffins and in which the bodies could be received. This should have a

separate entrance apart from that used by the public and situated in the rear of the building.

The mortuary should communicate directly with the post-mortem room. The jury could view the body, if necessary, in the mortuary.

2. *Room for Autopsies.*—The autopsies should be performed in a large, well-ventilated room lighted partly from above. This should be furnished with a suitable dissecting table and instruments, weights and measures. Hot and cold water should be provided and there should also be a good artificial light, in case examinations have to be made at night.

It is very essential that accommodation should be provided for physicians, medical students, law students and other persons interested in medico-legal investigations, so that they may have the benefit of seeing autopsies performed. The absence of some such arrangement at present is a serious drawback to the proper education of physicians in medico-legal duties, the result of which is only too apparent throughout the country.

Provision should of course be made by which, when it is considered necessary by the judicial and police officials, an autopsy may be perfectly private and only witnessed by such persons as are officially necessary. This restriction might seldom require to be enforced, but should be left under the control of the coroner.

For autopsies which have to be held privately, or where more than one autopsy has to be held at the same time, a smaller post-mortem room is required, connecting directly with the mortuary and placed in a part of the building not accessible to the public. By this means, when it is necessary to order the removal of a body from a private house in order to secure a more thorough medical examination, the friends and relatives could be assured that the body would not be exposed to the public view.

3. *Laboratory.*—In connection with the autopsies microscopic examination is often necessary before an opinion

can be given, and the examination of blood-stains, hairs and other substances is often necessary. For this reason a small laboratory, provided with the necessary apparatus and fittings, should adjoin the post-mortem room.

Part of this laboratory should be arranged for making simple chemical examinations, especially of the blood, urine and the contents of the stomach. It would probably not be expedient to provide a fully equipped chemical laboratory for elaborate chemical analysis, as this work is better entrusted to some regular chemical laboratory in important cases. In poisoning by certain volatile substances, notably prussic acid, it may be necessary to have the reagents for a chemical test immediately at hand. In connection with the laboratory a supply of jars suitable for preserving organs for analysis should of course be always available.

In poisoning cases it is often necessary to perform experiments in order to establish the poisonous nature of the substances isolated by the chemists. As such work alone, should be made jointly with the physicians of the morgue, a room for keeping animals under observation should be available somewhere in or near the building.

In connection with the autopsies it is often necessary to consult books of reference in regard to a number of special anatomical and other details which it is impossible to retain in the memory. A collection of standard books on legal medicine should therefore be available.

It is often necessary while studying an injury to compare it with other similar injuries, and for this purpose a collection of medico-legal specimens should be available. A small museum would not necessarily involve an increase in the size of the morgue, as the rooms containing it could be also employed for other purposes.

The maceration of skeletons is from time to time necessary in order to determine questions of identity or to study the nature of injuries. Specimens exhibited in court are often of great value in explaining the true nature of injuries to the jury.

In concluding, we wish to state that there are two classes of morgues: The one, are those employed simply as places of deposit for dead bodies; the other those which form recognized centres of medico-legal investigation and teaching, and have raised legal medicine to its present important position. As both classes of morgue cost practically the same sum to build and equip, the future success or failure of a morgue depends upon how it is designed and above all how it is conducted. It is to be hoped that in providing a morgue those in authority will furnish one in every way worthy of this city.

A building such as we have suggested could, as has already been pointed out by Coroner McMahon, be constructed by capitalizing the sum now annually paid by the coroner's court in connection with the transport and care of bodies, rooms for juries, and so forth. If built in connection with the police station the annual cost of heat, lighting and attendance would form but a trifling amount.

In the American cities mentioned above, and in most European cities, the construction and running expenses of morgues are met by the municipalities. In the case of Montreal it appears as if expenses in connection with transport, preservation, guarding and burial of bodies, as well as arrangements to prevent nuisance or danger to health, should legally belong to the city, while those in connection with judicial or medical study of the cases should be borne by the Province.

No doubt an amicable arrangement could be readily arrived at by which a satisfactory service could be obtained at an outlay not exceeding that required for our present very primitive arrangements.

(Signed)

WYATT JOHNSTON.
GEORGE VILLENEUVE.

classes
places
h form
teach-
portant
lly the
failure
above
provid-
every

as has
be con-
by the
d care
in con-
f heat,
mount.
n most
xpenses
e case
n with
dies, as
ager to
hose in
e cases

readily
obtained
present

N.
UVE.

