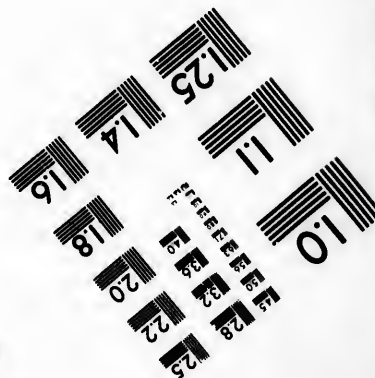
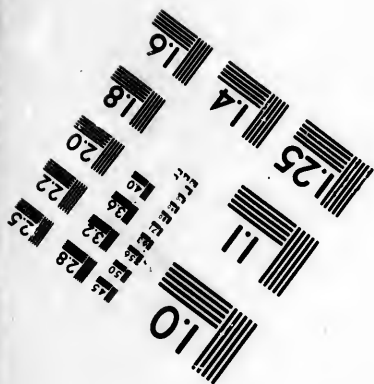
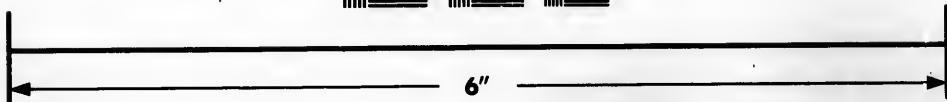
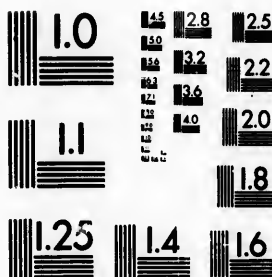


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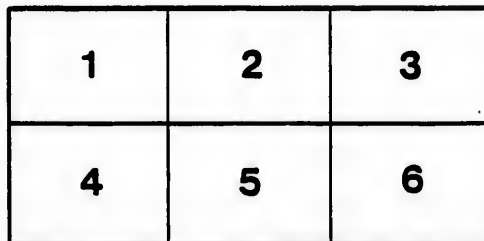
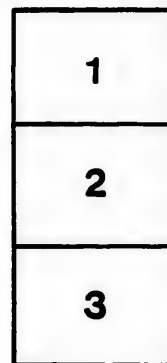
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[Reprinted from THE PHILADELPHIA MEDICAL JOURNAL, August 13, 1898.]

**NOTES ON THE PROGRESS OF LEGAL MEDICINE:—  
THE MEDICOLEGAL STUDY OF INJURIES.**

By WYATT JOHNSTON, M.D.,  
of Montreal, Canada.

FEW medicolegal textbooks deal at all thoroughly with wounds and injuries except with a view to the diagnosis of crime. We find that while relatively full consideration is given to wounds proper, this is by no means the case with other injuries, and only such accidents receive attention as are liable to be connected or confused with homicide or suicide. The one exception to this rule is made in the case of traumatic neuroses.

Thus, the criminal aspects of legal medicine tend to overshadow the civil ones in our textbooks, although the civil courts have to deal with ten medicolegal matters for one that comes before a criminal court. The civil cases, too, are more likely to devolve upon the practising physician than upon the medicolegal specialist. It is very desirable that the writers of some of our textbooks and works of reference should deal with the subject-matter in its non-criminal aspect.

Our journals, too, do not give much prominence to this line of work, such articles as appear being generally given not as original communications but merely as news-items, usually meager in detail and insufficiently vouched for from a scientific point of view. Even in special journals, such as the *Railway Surgeon* and the *Medico-Legal Journal*, the aim is rather to record forensic precedents than the scientific aspects of the question, and to be of assistance more to lawyers or ex-



ecutive officers than to physicians. Owing to the scarcity of detailed case-reports, new casuistic work and compilation of the scattered observation are especially needed as a basis for further progress, and one would prefer to see the careful study of cases take the place of the well-worn platitudes and ex-cathedra statements in which the addresses and communications made before medico-legal societies so abound. Of recent American literature on this subject, the excellent monograph by C. Phelps on *Gunshot Injuries of the Brain*,<sup>1</sup> that by Pearce Bailey on *Accident and Injury in Relation to the Nervous System*,<sup>2</sup> and the important clinical study by W. B. Coley of *The Relation Between Injury and Sarcoma*,<sup>3</sup> are examples of the highest type of literature upon the subject, and it is work of this kind that is most needed at present.

The barrenness of our own literature makes it necessary to be familiar with foreign sources of information. One is struck by the fact that the literature in this branch of legal medicine is almost exclusively German. Besides several periodicals<sup>4</sup> devoted exclusively to it, numerous articles appear in the general medical journals as well as the medicolegal ones, such as *Friedreich's Blätter*, and the *Vierteljahresschrift f. gerichtliche Medicin*. In the last-named journal an important series of monographs have recently appeared, dealing with the medicolegal relation of injury of the various internal organs and cavities, and especially with such remote and indirect aspects of trauma as tuberculosis, tumors, etc. A special department for "Unfallheilkunde" has been included for the past years in the *Virchow-Hirsch Jahresbericht*, while a number of useful larger works, hand-

<sup>1</sup> D. Appleton & Co., 1897.

<sup>2</sup> D. Appleton & Co., 1898.

<sup>3</sup> *Annals of Surgery*, March, 1898.

<sup>4</sup> *Monatschrift für Unfallheilkunde, Aerztliche Sachverständigen Zeitung, Archiv f. Unfallheilkunde.*

books, monographs, and collections of case-reports and important decisions have also been published. Of these I would specially mention Constantin Kaufmann's *Handbuch der Unfallverletzung*, 2d Ed., 1897; L. Beeker, *Lehrbuch der Sachverständigen*, 1895; E. Golebiewski, *Handbuch der Unfallversicherung*, 2d Ed., 1897; P. Blasius, *Unfallversicherungsgesetz und Arzt*, 1892. Very full official reports, with details of cases and decisions, are also published by the German Imperial Accident Insurance Bureau, and collections of illustrative cases have been issued by R. Kaan, F. Ritter, and others. R. Stern's monograph on *Traumatische Entstehung innerer Krankheiten*, as well as his article *Trauma als Krankheitsursache*, in Lubarsch and Ostertag's *Ergebnisse*, deserve special mention; as does also the recent article by Thoinet, *La Pneumonie Traumatique* in *Annales d'Hygiène publique*, July, 1898.

Much of the best German scientific work in this department is by men who are proprietors of private sanitariums, hospitals, institutions for mechanical therapy, massage, etc. The leaven of science does not appear to work to the same extent upon the proprietors of our own numerous institutions and sanitariums, for, with certain noteworthy exceptions, of which that at Saranac Lake is the best known, the publications from our "institutes" suggest other motives than the mere advancement of science. On studying the matter, it appears that the cause of such conspicuously rapid and satisfactory progress in Germany may be summarized as follows:

1. The fact of a large proportion of the population being in Government employ has led to State-control of accident-insurance and benefit-societies, so that accident-insurance loses in large part the character of a private business-enterprise, and the medical men employed in it become placed in a position where they can view

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matters with more independence than if employed by private corporations.

2. The Government regulations are to a certain extent to be followed in preparing reports of examinations, but these are not mere schedules of questions and answers.

3. In case of lawsuits for damages being made, the district government-physician practically acts as a judge in the medical aspects of the case. In the event of appeal, the medical questions are referred to an official committee of physicians; and if again appealed, to a higher court (super-arbitrium) of physicians having jurisdiction over the whole State. In each case a full report has to be made in writing, reasons being given for the views adopted. In this way an appeal exists from medical as well as legal opinion as regards the question whether the scientific facts in the evidence have been properly interpreted. Errors are investigated and often publicly criticised. The fact that every report is sharply scrutinized and annotated by higher medical authority leads to more careful preparation than would otherwise be the case, and in this way the progress in this branch of medical work has been directed and controlled by the highest medical talent in the country. We find reports by men of such standing as Virchow, and Bergmann, and others, dealing jointly with such minor matters as to whether a box on the ear of a schoolboy was really the cause of unusual and distressing symptoms that followed.

4. The medicolegal questions in civil as well as in criminal matters are referred to official physicians, and those in civil matters permit of a more refined analysis and delicately balanced judgment than in criminal. When the prisoner must have the benefit of any doubt, the reasoning must be on very broad lines in order to be safe. Another factor of importance is that, in Ger-

many, all such work is done by government-officials, who, before responsible duties are entrusted to them, must pass the *Physicats Examen*, a most severe test of efficiency in the requirements for sanitary and medico-legal work. The conditions that have so favored the study of the medicolegal relations of traumatism in Germany do not exist with us at present, and it does not seem likely that a general system of medical officialism could be practicable in the absence of a strongly centralized government. Better opportunities for the medicolegal and clinical study of traumatism exist in connection with the smaller benefit and accident-insurance societies, where matters are left to the decision of the physician, than in the very large insurance-corporations whose wholesale business-methods of settlement do not conduce to the scientific consideration of the medicolegal points involved in individual cases. Unfortunately the medical officers of our benefit-societies do not realize the scientific potentialities of their position and regard the opportunities afforded them for scientific medicolegal study with anything but enthusiasm.

In France no special examination exists, but by a regulation no one can act as expert before the courts unless five years have elapsed since receiving his diploma.

In England and America it is customary to entrust a large proportion of this work to recently graduated hospital-internes, who naturally regard it more as a perquisite by which they are kept supplied with a certain amount of pocket-money than as a subject worthy of thorough scientific study.

Recently the London County Council recommended to the Home Office that medicolegal expert duties should be assigned as far as possible to the pathologists of the public hospitals, though, so far, no official regulations to that effect have been issued.

In England and America there is no system of practical medicolegal instruction compulsory in any of the universities. A very full account of the provisions for practical medicolegal instruction in European countries is given in the article by Dr. P. Loye.<sup>5</sup>

When we consider that in almost every medicolegal case the essential problem as to whether a certain effect is due to a given cause, is in the majority of cases one in pathologic etiology, it is remarkable how comparatively little sound pathology one finds in the records of medicolegal cases and how very little the subject of pathology has been enriched from medicolegal sources. From reading a large number of records it would seem as if accurate work in this direction were greatly needed at present.

Careful examination into the facts will convince most persons that when the entire medicolegal material furnished by almost any of the general hospitals in our large cities can be placed at the disposal of some member of the staff, specially interested in this special line of work, it would enable instruction in legal medicine to be given the same thorough clinical and practical attention as is now the case with the other subjects of the curriculum.

A provisional arrangement of this kind was recently made at my request by the staff of the Montreal General Hospital. It is yet too early to say in how far we will be successful in placing the teaching of the subject on a practical clinical basis. At the outset I have met with a certain coyness on the part of the surgical staff in allowing their cases to be studied, which tended to limit the amount of available material, whereas the cordial and thorough cooperation of the staff of a hospital is necessary for the full success of the plan. I must mention that Dr. F. W. Draper, of Boston, has

<sup>5</sup> *Annales d'Hygiène publique*, 1890.

already followed for some years the system of having occasional clinics on living medicolegal cases given by one of his assistants.

It seemed advisable to explain in a general way the extent and character of the literature available before going into the details of the subject and to leave these for consideration in subsequent reviews.

