



# MEDICO-LEGAL SCIENCES:

*The Analyses and Classification of Them.\**

No science has made more rapid progress in modern times than medical jurisprudence. Until within a few years its practical uses were very narrow, and at last, when it began to expand and become more valuable, it became desirable to have a name more comprehensible and expressive than that it was known by in its embryotic state. This more comprehensive name is now Medico-Legal Science. It is of the uses of this modern science which is of practical value to us, and with which we have at present to do. It is the high office of medico-legal science to elucidate, explain and define numerous subjects relating to man, based upon natural laws, so that the community may be better and safer, and man be purified, strengthened and perfected, and aim at a higher type and to be nearer perfect in body and soul, and more worthy to be the image of a personal God and the earthly abode of the Divine Spirit. In the full light of this science the Christian apostle's grand idea of man in the question, "Know ye not that ye are a temple of God, and that the Spirit of God dwelleth in you?" appears to us to have a wide practical meaning, and not so narrow and contradictory as many schools of theology dogmatically assert and would have us believe.

The subject before us this evening devolves itself into two great divisions—*forensic medicine* and *medical police*, or state medicine, as it is termed in Germany. This latter branch in very many cases bears the same relation to forensic medicine that the preventive part of medicine does to the therapeutical—being intended to prevent those accidents which it is the object of forensic medicine to

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elucidate when they have unfortunately happened. If the same attention was devoted by physicians to the prevention of diseases as is devoted to their cure, the happiness of mankind would be wonderfully increased. In continental Europe medical police descends to very minute regulations, which among us would be thought ridiculous. The Hanoverian Government direct the number of punctures to be made in vaccination. A few years ago a decree was promulgated in Austria prohibiting the use of plum kernels in the manufacture of imitation coffee, as being unwholesome.

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The objects and use of *medical police* regulations are very rapidly growing among us, and are as important as they are numerous. Thus, the official examination of provisions and drinks, the regulation of the sale of drugs and medicines, the investigation of the causes which lead to the spreading of contagious and malarious diseases—the prohibition of interments and certain manufactures in the heart of large cities—regulating fire escapes, drainage, etc., and other subjects that tend to the preservation and protection of the public health. Vaccination has not yet been made compulsory in any part of the United States.

A complete system of State medicine may be regarded as the evidence of the sense of the highest degree of civilization, being the outgrowth of medicine, law and religion (the religion of humanity), all combined, being the perfection of the science of government. (I have more fully discussed this branch of the subject in my paper entitled “Municipal Law and its Relations to the Constitution of Man,” published in 1874.) Individual rights were first sought to be protected by human laws, afterwards sanitary laws for the protection of communities were enacted.

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*Forensic medicine*, as I have before said, relates only to that which may only affect an individual, and may be analyzed and its subjects classified as follows :

#### I. INDIVIDUAL EFFECTS.

1. Development of human frame (includes criminal responsibility and civil contract).

2. Duration of life (includes benefit societies and life insurance).
3. Personal identity.
4. Marriage.
5. Impotency and sterility (includes divorce).
6. Pregnancy.
7. Parturition and birth.
8. Sex (includes monsters and hermaphrodites).
9. Paternity and affiliation.
10. Presumptions of survivorship.
11. Mental capacity (alienation, idiots).
12. Rights of deaf and dumb, idiots, infirm and insane persons.
13. Maladies and conditions exempting from public duties.
14. Citizenship.
15. Disposition of property by will and inheritance.
16. Feigned diseases.—They are insanity, somnolency, syncope, epilepsy, hysteria, shaking palsy, hydrophobia, fever, dropsy, jaundice, hæmophthisis, vomiting of blood, vomiting of urine, bloody urine, incontinence of urine, gravel and stone, alvine concretions, abstinence from food, deafness and dumbness, blindness, ophthalmia, ulcers and sores, hernia.

## II. INJURIES TO PROPERTY.

1. Nuisances from manufactories.
2. Arson.—Spontaneous combustion (including friction, fermentation, chemical action).
3. Forgery and counterfeiting (including chemical erasures, debasement of metals).

## III. INJURIES TO THE PERSON.

1. Defloration.
2. Rape.
3. Mutilation.
4. Criminal abortion.
5. Infanticide.
6. Homicide and Suicide (including asphyxia, drowning, strangulation, and mephitic air).
7. Starvation.
8. Temperature.
9. Wounds.

The greatest enemy that man has to guard against, whether individually or in populous communities, is *poison*. They may be in our food and drink and in the air we are compelled to breathe; they are found in the animal and vegetable kingdoms, and in the earth and its minerals. Poisons, therefore, and their detection and effects upon the physical system, is the most important branch of medico-legal science—both forensic medicine and medical police—to the practicing physician and the citizen and the legislator.

Animals, when left free, are often guided by instinct to shun what is poisonous to them, and in many instances instinct guides them to some antidote for poisons which they may have contracted. Not so with man; he is left entirely to the teachings of experience of himself or others. The State, in many instances, tries to provide against poisons, but the antidotes for them are not defined or prescribed by the State, but are left entirely to the judgment of the physician or other person in attendance who, in cases of erroneous application or neglect which proves fatal, may be subject to the penal laws against manslaughter and murder in behalf of the State, and in minor cases liable to the individual for damages for malpractice. A physician is held to a more strict accountability in every case than another person. The presumption of skill and knowledge is an important factor in all such cases.

In nearly all cases the poison is introduced into the body through the stomach. As soon as swallowed, a portion of the agent may commence destructive action upon the mouth, throat or stomach as an irritant; while other substances pass from the stomach through the mucous membrane, without injuring it, into the blood, and are carried by it to the brain and other portions of the nervous system, where the really injurious action begins by overpowering them so that the breathing and action of the heart are not kept up, and they become stupefied by these narcotics.

Medical works almost invariably classify poisons by their effects upon the human system as irritants, narcotics and narcotics-acrids. This is very proper, because a physician is generally not called until something is the matter that alarms the patient, and he wishes to know the cause and the remedy. By describing his feelings and symptoms the physician can tell him whether it is poison or not, and if it is poison, he can generally, by further

inquiry, trace the origin of it, but his main duty is to prescribe the remedy, if any, and if there is none, and the case is fatal, to be ready at the coroner's inquest and at the trial in a criminal proceeding to tell what he knows about the matter.

Physicians are, therefore, rarely ever consulted as to the preventive of poisons, but this is mostly left to individual intelligence and to legislative sanitary regulations, the growth of which in this country has been very slow until within a few years past.

As a classification of all known poisons by subjects will be more generally useful and convenient for the purposes of medico-legal science than if classified by effects only, I will give them by subjects.

[The detailed statement or list of human poisons are published separately, and are arranged :

1. Animal poisons—(including reptiles)—by food, touch, sting, bite.

2. Vegetable poisons—Trees, shrubs, plants, flowers, juices, fruits, essences, roots, etc., by each of their botanical names and their order, species and varieties, as well as their common names.

3. Mineral poisons and their acids, and the alkalis and their salts, arranged by their chemical names as well as their common names, stating their base and preparations.

4. Poisonous gases—arranged by their chemical names and their common names, showing their origin and base.]

The ascertaining of the kind of poison which affected the particular person is more often the province of the physician and the chemist, even when considered with surrounding circumstances, than it is in courts of justice and the usual mode of legal investigation. The tests for poisons by means of chemical analysis and applications is afterwards produced in the usual form of evidence before courts for the purpose of ascertaining the cause and source of the poison.

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*Medical Police*, or State medicine, being the last that a community seeks to enforce by laws, relates mainly to the following

subjects, as they may be deemed to affect the individual or communities :

(A.) INDIVIDUAL EFFECTS.

1. Habitation (fire escapes, safe buildings).
2. Aliment (preparation of food and adulterations).
3. Regulation of sale of drugs (including license to physicians).
4. Dress regulations as to sex.
5. Temperance—eating and drinking, smoking, etc.)
6. Exercise (public walks, parks, etc.
7. Prostitution.
8. Celibacy and marriage.
9. Lactation and care of offspring.
10. Occupation and health (contagious diseases).
11. Life insurance.

(B.) HEALTH AND WELFARE OF COMMUNITIES.

1. Sites for towns and habitations (including air and water).
2. Drains and sewers.
3. Paving of streets and caring of roads.
4. Disinfectants.
5. Schools.
6. Almshouses and asylums.
7. Hospitals and dispensaries.
8. Quarantine.
9. Prisons.
10. Punishment (corporal—capital).
11. Pleas in bar of execution.
12. Cemeteries.

In urging upon all the study of all these sciences I will remind the members of the bar that all the rising barristers in England attend lectures on legal medicine, and often, as we all know, does forensic fame arise from the ability and skill of an advocate in the examination of a medical witness. To the medical profession I would say that to be able to stand the test of a thorough examination on the witness stand is the strongest proof against charlatanism that can be placed before your profession and the public.

It will be seen from the above *analysis* that all the sciences above mentioned relate to what are called the *positive sciences*—that is, those that are capable of demonstration and are based upon actual facts and experiences, and not upon mere theories and suppositions. It is true that erroneous theories and opinions may still affect them to a more or less degree in some particulars, but time will eliminate mere theories which are not founded on actual and substantial facts which are capable of being proved in a court of justice in the same manner as is done in all business transactions. With such a foundation, Medico-Legal Science will stand firm and continue to grow, and be necessary and useful so long as mankind continues to be born into the world, and to lack experience and require protection, guidance and regulation.



