and had achieved such prestige that he was appointed legal physician to the city. The civic statutes of Bologna are, according to Gurlt, and the German historian of surgery, Sudhoff, the oldest monument of legal medicine in the Middle Ages, and for this Ugo, more than any other, is responsible.

MEDICAL SCIENCE AND THE LAW

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"There are those who say that the earliest physician was the priest, just as the earliest judge was the ruler who uttered the divine command and was king and priest combined. Modern scholarship warns us to swallow with a grain of salt these sweeping generalities, yet they have at least a core of truth. Our professions—yours and mine—medicine and law—have divided with the years, yet they were not far apart at the beginning." 1

Thus, Judge Cardozo begins his interesting article anent the relationship of medicine and law. It is trite to recall that the law constantly invokes the aid of medical science. Jenner or Pasteur oftentimes accompanies Blackstone or Coke into the halls of justice. Welch and Mayo are not unknown in legal circles which pay daily tribute to Williston and Wigmore. Today, no less than in the past, there is a bond of professional friendship between the doctor and the lawyer, each in his own field a man of mystery, each endeavoring to allay the miseries and pains of mind and body, each subjected to criticisms and complaints for his shortcomings and his failures.

One of the interesting and timely developments of our time and place is the increasing demand for reformation of the legal order. Needless to state, this movement is clearly visible in the recent proposals for the reformation of the Supreme Court. Independent of the soundness or unsoundness of such proposal, which it is not in order to consider at this time, its significance is that it indicates that law must be a growing, living science and keep abreast of the discoveries and developments in bordering sciences.

As new inventions and discoveries are perfected and proven in medical laboratories, it is inevitable that these inventions and techniques, so far as applicable, should be utilized by judges and lawyers. No one can gainsay the tremendous advantages which follow scientific discovery adequately established and uniformly accepted in the halls of science. Sometimes conservative groups in the legal profession object too strenuously to the invasion of their own discipline by profes-

sional experts from other callings. Law to them is an insulated chamber to be occupied alone by members of the Bench and Bar. The opposition to the use of fingerprinting and blood-grouping tests may be carried to an extreme by the lawyer groups in the legal profession. A present-day scientific development which is beginning to arrest attention of lawyers is the lie-detector. It has been my good fortune to observe the work of Reverend Walter G. Summers, S.J., Head of the Department of Experimental and Applied Psychology of Fordham University, in developing the psycho-galvanometer, an intricate electrical mechanism, which aims to detect the utterance of lies by the subject under examination. The first experiments which I witnessed a year ago were far from convincing. But a demonstration which I attended a few weeks ago gave evidence to any fair-minded critic that the lie-detector has advanced to a stage of development where it is entitled to receive the professional interest of lawyers, psychiatrists and, indeed, medical practitioners in general. The work of the Bureau of Crime Detection of the United States Department of Justice likewise attests the value of scientific methods in the law.

There is, however, a sound basis upon which the lawyers may rest their opposition to ready acceptance of scientific discovery. Scientists, no less than lawyers, have "hobby horses" which they are prone to ride to death. Each particular school of scientific thought has its own magic formula for sure-fire success. Firmly convinced that their theory alone is a perfect one, they reject all other theories and insist that the salvation of law depends upon the acceptance of their own special brand of scientific discovery. For example, we read in law reviews that lawyers should accept the technique and methodology prevailing in the "positive sciences of sociology and psychology." It has already been conceded that the workers in these adjoining fields can contribute greatly to the progress of the law, but fulsome statements about the "positive" character of such elusive sciences as sociology, economics and psychology are apt to produce a raising of legal eyebrows.

Before relating the conservatism of the law to the medical field, let it be stated that lawyers pay humble tribute to their medical brothers and view with real admiration and esteem the unselfish, scholarly and scientific accomplishments made by the doctors. It is not believed that this tribute is in any degree lessened when we call to mind the frank statement of Doctor Carrel, writing under the suggestive title, "Man, The Unknown:

We are obliged to consider all the different aspects of man, physico-chemical, anatomical, physiological, metaphysical, intellectual, moral, artistic, religious, economic, and social. Every specialist, owing to a well-known professional bias, believes that he understands the entire
human being, while in reality he only grasps a tiny part of him. Fragmentary aspects are considered as representing the whole. And these aspects are taken at random, following the fashion of the moment, which in turn gives more importance to the individual, or to society, to physiological appetites or to spiritual activities, to muscular development or to brain power, to beauty or to utility, etc. Man, therefore, appears with many different visages. We arbitrarily choose among them the one that pleases us, and forget the others.\(^2\)

Indicative of the extreme danger of a too general acceptance of scientific theory is the following statement made by Doctor Oscar Riddle, an eminent biologist in the field of experimental evolution. Speaking before the American Association for the Advancement of Science, Doctor Riddle said that biological research has traced the origin of life far back into its beginning from *inanimate matter*. As a result of these studies which link the beginning of human life with a substance which belongs neither to the living nor the non-living, Doctor Riddle is reported to have said:

"In this manner consciousness is placed under a microscope and analyzed into its component parts. And the result of this scrutiny is that *science no longer accepts the doctrine of separation of mind and body, as it finds mind an essential function of the bodily processes, the outgrowth of physical, chemical and biological processes and no more.*" [Italics inserted.]\(^3\)

Compare the modest conclusions of Doctor Carrel with the extravagant statements of Doctor Riddle and one may sense the clash of conflicting theories which exist among medical scientists no less than among lawyers. Doctor Carrel, with the humility of the true scholar, confesses to the magnitude of the uncharted areas in the medical field. Doctor Riddle, with one dogmatic utterance, spans the biological course of life from the beginning of time, and offers his theory as the demonstrable judgment of "Science."

In conclusion, the relation of science to law may be briefly set forth. The true lawyer and judge pays high tribute to all workers in the field of science. He observes and considers, perhaps with too critical eye, the advent of unusual inventions which may encroach upon the law. This conservatism is at once necessary and dangerous: necessary, in order to provide a filtering bed through which these experiments must pass before final recognition in the legal order; dangerous, in that the judge or lawyer may too long delay the acceptance of well-established and firmly bottomed developments in the scientific laboratory.

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\(^2\)Carrel, "Man the Unknown" (1935) 38.