

Contributed by

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Centuries before percussion and the stethoscope, the Hippocratic School of Cos and the School of Cnidus taught students to observe, to palpate, and, with the ear on the chest, to auscultate. These skills were taught not for diagnosis but rather for prognosis. The Galenic-Hippocratic doctrines, unchanging and rarely opposed, governed medicine and medical education for 1500 years.

Feudalism in France collapsed with the Revolution of 1789. Concurrently, there was remarkable progress in medicine and medical education, attributable in great part to the creators of physical diagnosis. The development of physical diagnosis made France the center of world medicine and medical education in the first half of the 19th century.

Leopold Auenbrugger was the inventor of percussion, a method of producing sounds by striking on the walls of the thorax. He was born in Austria and studied medicine at the University of Vienna. He received a degree in 1752, and was appointed a full-time physician at the Spanish Military Hospital. Encountering the usual difficulties in visualizing and assaying organ pathology in chest diseases, Auenbrugger recalled that his father, an innkeeper, tapped on the sides of a wine barrel with his fingertips to produce sounds that indicated the level of its contents. With this vision in mind, Auenbrugger concentrated on research in percus-

sion. His approach was to predict organ abnormality of chest diseases, then either confirm or refute his diagnosis by autopsy findings. A devotion to music played a role; not only did Auenbrugger play an instrument and write a libretto for an opera, but he was a master of pitch, resonance, and tonal quality.

In 1761, Auenbrugger's *Inventum Novum* was published, a medical classic of 95 pages on the sounds produced by tapping on the walls of the chest. It was written in Latin, and composed of 14 observations and 47 sections. Percussion was described as "a slow tapping with the fingers, brought close together and extended, on the fingers of the other hand laid on the chest." The preface was revealing: "I present the reader with a new sign . . . for detecting diseases of the chest. This consists of percussion of the human thorax . . . whereby an opinion is formed of the internal state of the cavity . . . the fruit of seven years observation. . . I have not been unconscious of the dangers . . . envy, malice, hatred, detraction and calumny."

The book and the technique of percussion were ignored and even ridiculed with only a few exceptions: during a short period as professor of medicine at Vienna, Maximilian Stoll taught percussion; a few German schools did likewise; Albrecht V. Haller wrote a favorable review (1762) with little effect; a surgeon in Paris and one in Copenhagen found percussion useful in the diagnosis of empyema; and Oliver Goldsmith wrote a review of *Inventum Novum* for the *London Ledger* (1762), which apparently no English doctor read. This neglect did not deter Auenbrugger from the pleasures of practice, family, music, opera, and frequent attendance at receptions at the court of Maria Theresa.

In 1778, Jean Corvisart, the rescuer of percussion, left for Paris to study medicine. He received a degree in 1782 and began a lifetime service at La Charité Hospital. Corvisart was unsurpassed as a teacher of clinical medicine at the bedside and pathology at the autopsy table. He became chief of medicine in 1795 and introduced the custom of one patient to a bed, with beds widely separated and separate male and female wards.

In 1808, 47 years after Auenbrugger's publication, Corvisart wrote a French translation of *Inventum Novum*. He added 440 pages of commentary and, in effect, rescued percussion from oblivion. Percussion was adopted by clinicians worldwide.

Corvisart was richly rewarded for his work on chest diseases. He became Napoleon's doctor, an officer of the Legion of Honor, and a Baron of the Empire.

It is interesting to speculate which *inventum novum* we ridicule or ignore today and whom we will reward for its rediscovery.

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