

Stethoscope and the History of Its Creation in the Reflection of Philately and Numismatics

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Abstract

The article presents research materials concerning the study of representation in the collection materials, necessary information about the French physician, the author of the method of auscultation, René Laennec. He is described through philatelic materials, as well as through commemorative and table medals. The text is richly illustrated with illustrative material, explanatory descriptions and comments. Also, the article presents research materials concerning the study of representation in the collection materials, necessary information about the French physician, the author of the method of auscultation, René Laennec. He is described through philatelic materials, as well as through commemorative and table medals. The text is richly illustrated with illustrative material, explanatory descriptions and comments.

Keywords: Rene Laennec, Auscultation, Stethoscope, Philately, Postage Stamps, Postal Envelopes, Commemorative Medals.

1. Introduction

The history of medicine is an important part of human history, its discoveries and achievements. The invention of the stethoscope, by a French physician and medical scientist, gave medical science a perfect mechanism in the early diagnosis of respiratory diseases. Physicians of that period had to listen to the lungs and bronchi (auscultation) with their ear against the patient's chest. This caused a lot of inconvenience both for the doctor and the patient. This invention was revolutionary in the field of practical medicine. Before presenting the various collection materials about René Laennec, I would like to start by briefly presenting his path in medicine. René-Théophile-Hyacinthe Laënnec (French: René-Théophile-Hyacinthe Laënnec, February 17, 1781, France) was a French doctor and anatomist, the founder of the clinical and anatomical diagnostic method and the inventor of the stethoscope [1,3,4,6,7].

In 1816, Laennec invented the stethoscope, which greatly facilitated the process of listening to the patient. The first model of the stethoscope, which Rene created, is still on display in the Laennec Museum in Nantes. In 1819, he introduced auscultation to medicine. Auscultation is a method of medical examination of the internal organs of humans and animals by listening to the

sound phenomena produced by the functioning of those organs. He then presented his landmark work "On direct auscultation" to the Academy [1,3,4,6,7]. It is worth noting that René was the first to introduce the terms "cirrhosis" and "tuberculosis" into medical usage. He described many diseases, including capillary bronchitis, hemorrhagic infarction, choking catarrh, etc. [1,3,4,6,7]. Before the invention of the stethoscope, physicians were limited in their methods of examining chest organs. Leopold Auenbrugger gave medicine an invaluable research tool - percussion. Laennec translated his work into French and published it in 1808 with his comments [1,3,4,6,7].

Laennec discovered that heart sounds are heard clearly and loudly when indirect auscultation is used. Over the following years, the doctor tested different types of materials to make an instrument that spared medics from direct contact with the patient's chest [1,3,4,6,7]. After painstaking experimentation, Laennec selected a hollow wooden tube 3.5 cm in diameter and 25 cm long, the predecessor of the modern stethoscope. The instrument was portable because it could be taken apart. Using the stethoscope, René Laennec studied the sounds made by the heart and lungs in various pathologies, making diagnoses that were confirmed by autopsy findings [1,3,4,6,7]. After several years of careful study and

observation, he publishes his conclusions, laying the foundation for modern knowledge of the pathologies of the thoracic organs. In 1819, the doctor published his first work on organ listening [1,3,4,6,7]. Laennec is considered the father of auscultation. He was the first to describe the differences of pneumonia, bronchiectatic disease, pleurisy, emphysema, pneumothorax, tuberculosis and other lung diseases by audible sounds. Laennec perfected the art of physical examination of the chest organs, introducing many clinical techniques still in use today [1,3,4,6,7]. He was a master of clinical diagnosis, published two books describing lung and heart diseases, and characterized bronchiectasis for the first time. Laennec described cardiac murmurs, bronchial and vesicular breathing, variety of rales, normal and abnormal lung sounds. An outstanding career, the invention of the stethoscope contributed to great success in the study and diagnosis of chest diseases [1,3,4,6,7].

2. Aim

The purpose of this article is to present, to the esteemed reader, the obtained and systematized results of the study devoted to the reflection, in the means of collecting (philately and medal art), of historical information and historical memory, about the famous French doctor - René Laennec and about his invention - the stethoscope.

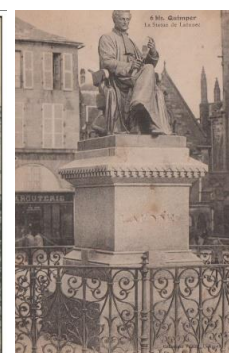
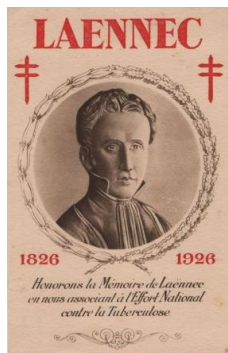
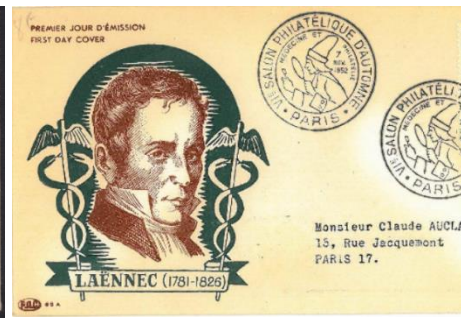
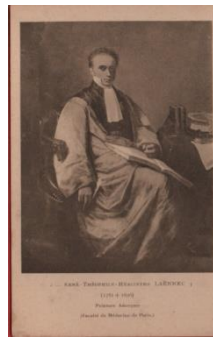
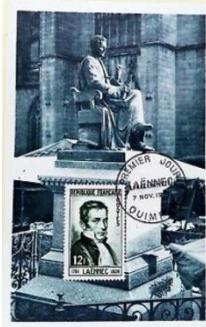
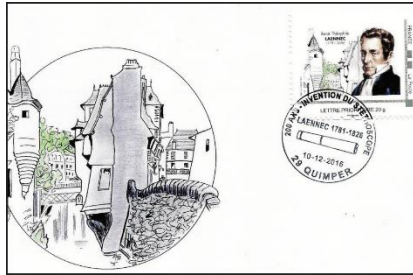
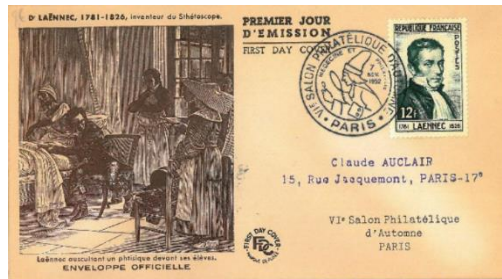
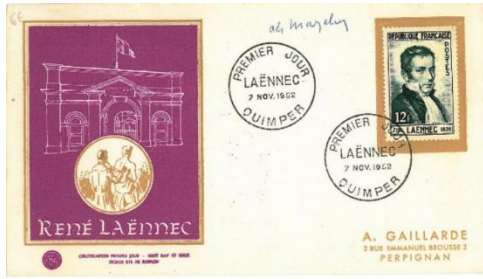
3. Methods and Means of Research

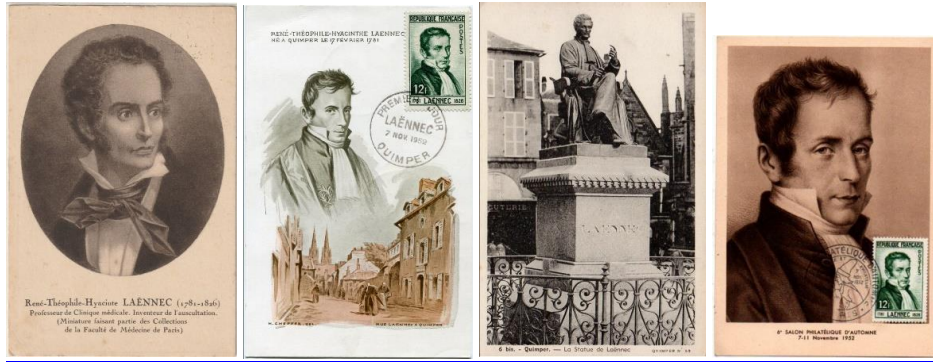
When conducting this study, the author of the article previously found and selected in various available sources of information, commemorative medals from various countries of the world, which, thematically, were dedicated to René Laennec, his scientific achievements and life. From all selected commemorative medals found, first of all, on special collection sites representing numismatics and medal art, their screenshots were made (with strict observance of copyright). The author denies any claims from other persons and organizations related to the violation of compliance with the requirements of laws, on strict observance of copyright.

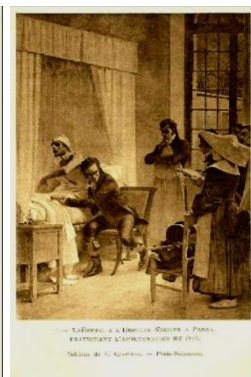
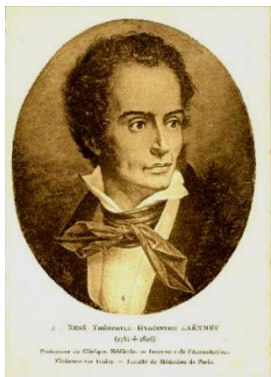
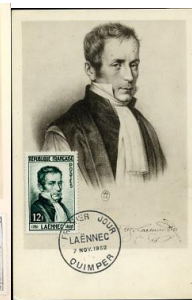
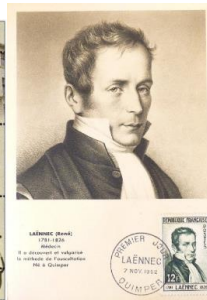
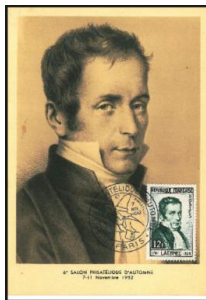
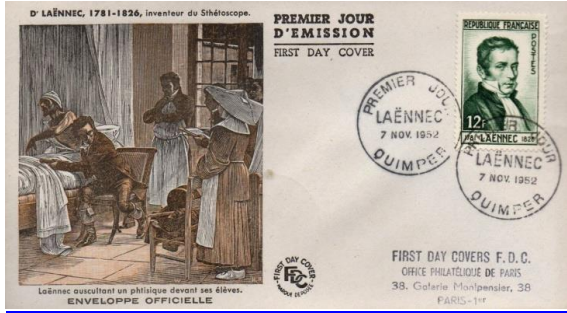
4. Results of the Study and Discussion

Now, I would like to move on to the presentation of René Laennec's scientific exploits in the means of collecting. And I would like to start with philately. These are, first of all, postage stamps, envelopes and carte blanche of France, the scientist's homeland. Also, there are bright, professionally executed postage blocks of several African countries (Sierra Leone, Central African Republic, Transkei) dedicated to the memory of René Laennec. [Of particular collecting, artistic and historical interest are the French postcards and postcards dedicated to the great French physician and scholar. Fig. 1 shows philatelic materials issued in memory of the scholar. [3,8].

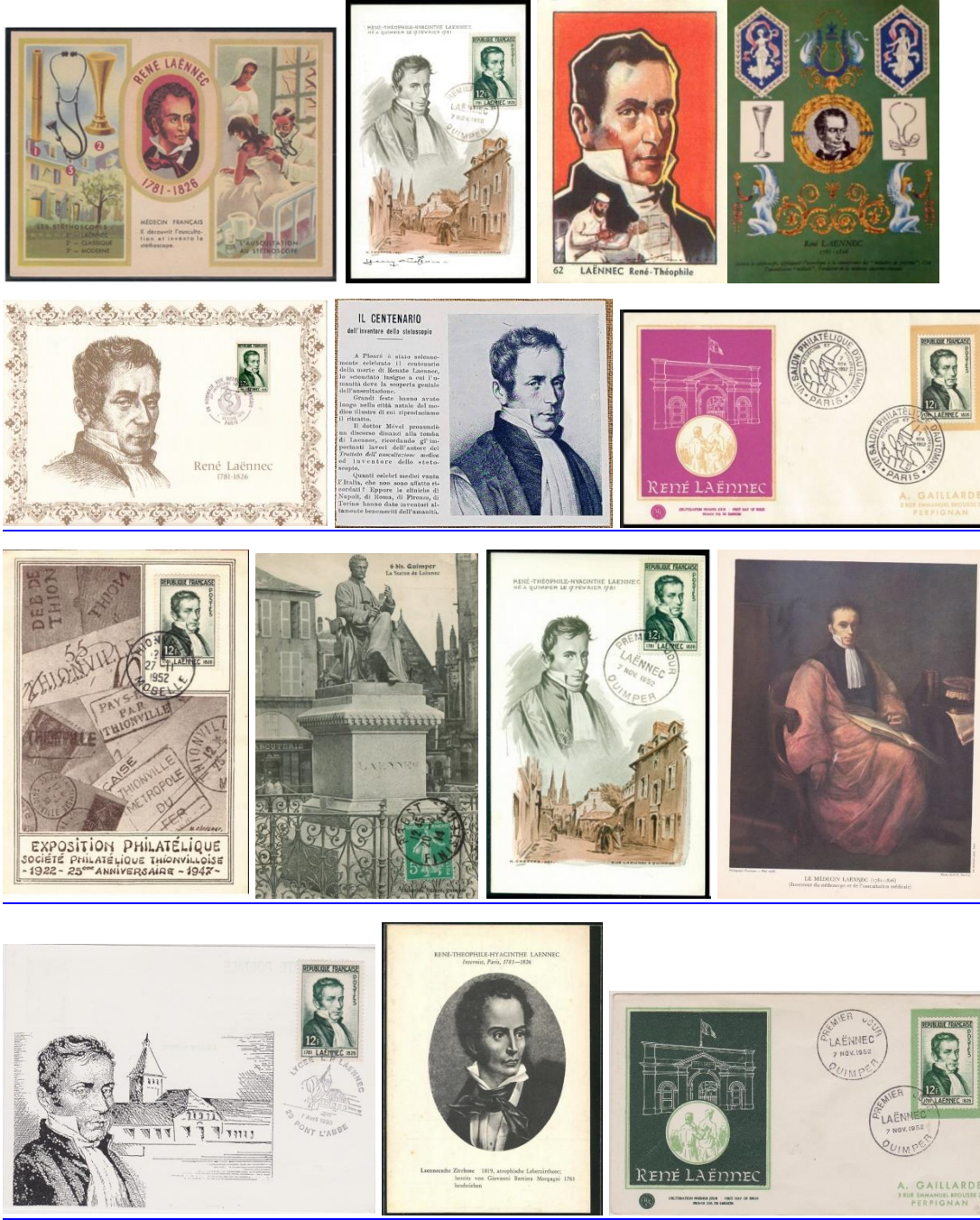








René Théophile Hyacinthe Laennec.



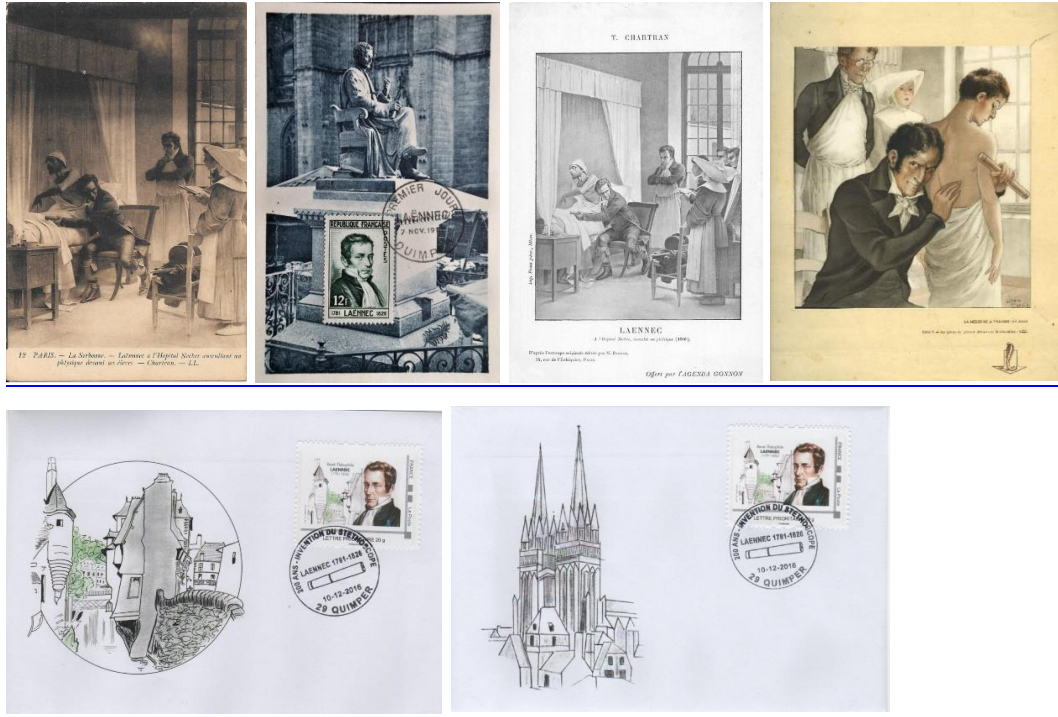


Figure 1: Philatelic materials devoted to René Laennec

There are also a significant number of commemorative medals dedicated to this French doctor. These are traditional round medals, minted from silver, bronze and aluminum, as well as non-round

medals (plaques) [6, 7, 9]. The medals were made by different medallists, for various commemorative events related to medical and scientific activity of R. Laennec, and are presented in Fig. 2.

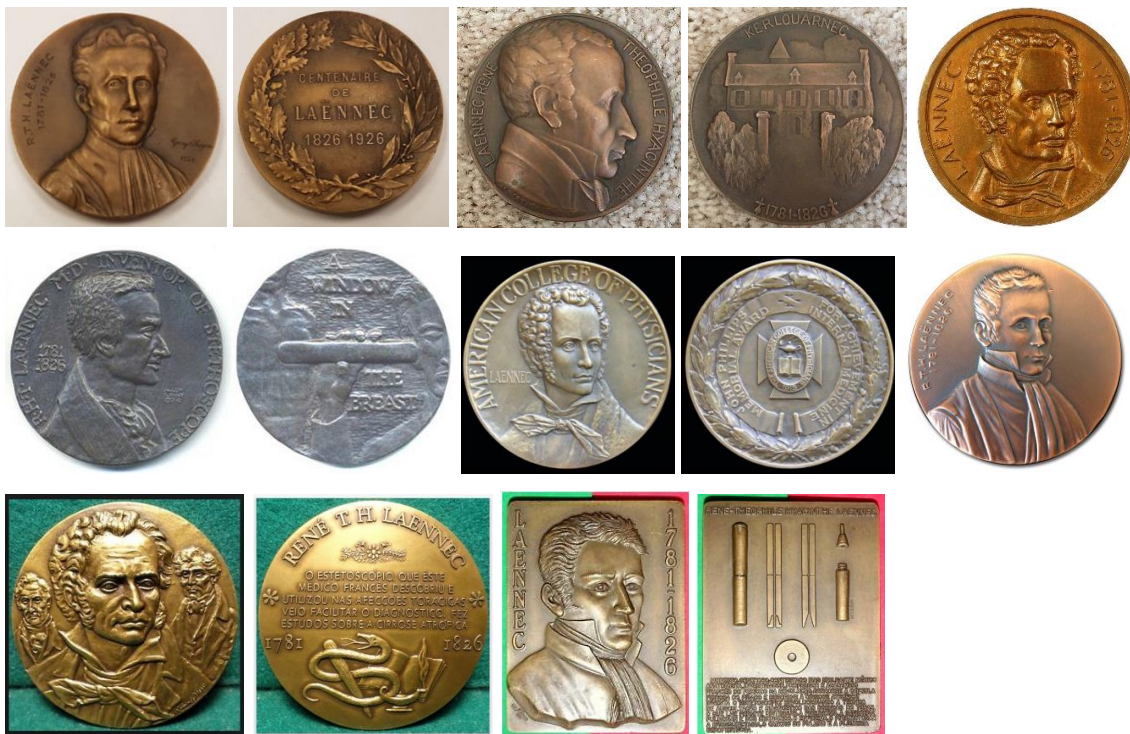


Figure 2: Commemorative medals dedicated to René Laennec

Quite interesting, both from a historical and collector's point of view, is the wrapper of a French chocolate, 1910, depicting a scene of a patient's auscultation by doctors of the time, with a portrait and a short biography of the scientist. The French confectioners

of the time produced many such "encyclopedic" chocolates with a series of special wrappers telling about famous doctors, scientists, writers, poets, musicians, etc. A copy of this chocolate wrapper telling about Rene Laennec is shown in Fig. 3 [5].

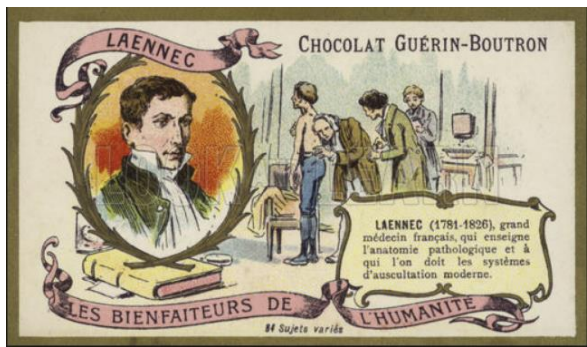


Figure 3: A chocolate wrapper telling the story of René Laennec

Unfortunately, our presentation of collectibles narrating the medical and scientific exploits of René Laennec is over. All, available sources of information telling the story of René Laennec, in these types of collectibles, are presented for the judgment of the reader.

Figure 4, presents a selection of philatelic collectibles thematically depicting stethoscopes and their practical use by both doctors and nurses [10-35].





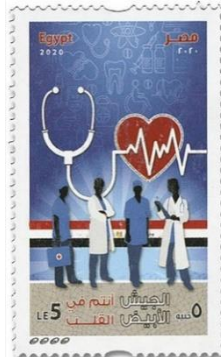
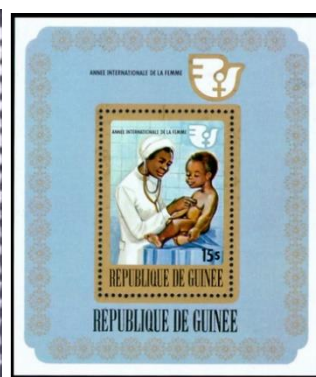
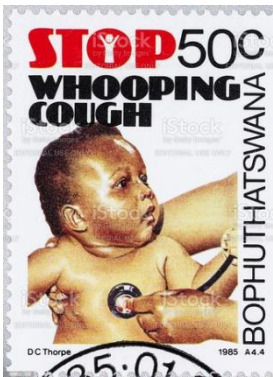




Figure 4: Philatelic selection on the history and use of the stethoscope in medicine

Figure 5, presents a selection of numismatic materials (commemorative medals and coins), as well as the obverse of the French banknote, dedicated to René Laennec and the history of his creation of the stethoscope [36-43].





Figure 5: French numismatic selection and banknote dedicated to René Laennec and the stethoscope

This concludes another article by the author on the history of world medicine and its heroes. New research articles on similar topics are in preparation.

5. Conclusions

1. The history of medicine preserves the memory of its heroes in many accessible, sometimes unconventional forms and ways.
2. Means of collecting, in all their diversity, quite informative, non-standardly, tell the story of many scientists, including the story of the famous French doctor René Laennec.
3. Illustrative materials on the history of the stethoscope and its image in philately and numismatics provide a better understanding and comprehension of this section of medical history.

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