the high viscosity test Liquid Paraffin is the best for internal use. In fact let us quote from the JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION where it states: "The importance of the viscosity of liquid paraffin is engaging the attention of medical men. *The London Lancet* has shown that the viscosity is more important than the specific gravity, for, whereas the specific gravity may be the same for different samples, the viscosities vary considerably. The higher the viscosity, the more suitable is the oil for medical use as an internal lubricant." (From page 1513, Dec. 1915.)

With this point uppermost in your mind we will present a table in which we have tabulated carefully results obtained by us in our own work with Russian and American Oils. The viscosity was obtained by the Engler Viscosimeter. We are also including in the table, for comparative purposes, the specific gravities and cold tests.

Two samples of Russian Oil and two samples of American Oil were used in these experiments. The Russian Oils were from two very distinct sources of supply. The American Oil No. 1 and No. 2 were obtained from the same source, No. 1 being extensively advertised to the public, while No. 2 was supplied in bulk only.

	Sp. Gr. at 59° F.	Cold test.	Viscosity at 68° F. (Engler).
American Oil No. 1.....	0.8480	Clouds at 40° F., Congeals at 30° F.....	5.4
American Oil No. 2.....	0.8520	Clouds at 18° F., Congeals at 14° to 16° F.....	4.71
Russian Oil No. 1.....	0.8600	Congeals at 0° to —2° F.....	4.26
Russian Oil No. 2.....	0.875	Congeals at —4° F.....	10.26

We may first glean from the above table that although the specific gravities of American Oil No. 1 and No. 2 are not widely different, we can obtain positive proof of their structural difference by the cold test. The viscosity of the American Oil supplied the public seems slightly higher than American Oil No. 2. In comparing the Russian Oils, we note that these samples did not cloud before congealing, also that of the two Russian Oils, No. 2 is of higher specific gravity and viscosity. Again, it is interesting to see that American Oil No. 1, although having a lower specific gravity than Russian Oil No. 1, has a somewhat higher viscosity—this bearing out the statement already quoted from the *Lancet*.

In concluding, we will summarize by stating that a Liquid Paraffin which has undergone extensive clinical investigation, is free from olefins or other active substances, and which is of a high viscosity, should serve as the best medicinal lubricant for intestinal stasis.

LABORATORY OF
DAVIES, ROSE & CO., LTD., BOSTON, MASS.

THE OPPORTUNITY FOR DEVELOPING HISTORICAL PHARMACY COLLECTIONS AT THE NATIONAL MUSEUM.*

BY FREDERICK L. LEWTON.[1]

I have been asked to speak to you on the opportunity for developing the historical pharmacy collections at the National Museum. It might be well, even

* An address delivered to the Washington Branch of the American Pharmaceutical Association, January 31, 1917.

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though I am speaking to Washingtonians, to say a few words on the inception and history of the Museum and its collections.

The National Museum was organized in 1846 by the act of Congress transferring to the Smithsonian Institution the custody of the "National Cabinet of Curiosities" at that time deposited in the Patent-Office Building. The act above referred to provides that "all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens belonging or hereafter to belong to the United States, which may be in the city of Washington," shall be delivered to the regents of the Smithsonian Institution, and, together with new specimens obtained by exchange, donation, or otherwise, shall be so arranged and classified as best to facilitate their examination and study.

The National Museum is the authorized place of deposit for all objects of natural history, mineralogy, geology, archaeology, ethnology, etc., belonging to the United States or collected by the Coast and Interior Survey, the Geological Survey, or by any other parties for the Government of the United States, when no longer needed for investigations in progress. (Revised Statutes of the U. S. and the Statutes Forty-fifth Congress.)

It will be noted that the original act did not mention the word "exhibit" or necessarily imply it. During the first ten years after the founding of the Smithsonian Institution, specimens were collected purely and solely to serve as objects of research, no special efforts being made to exhibit them to the public. In 1857, the Institution assumed the custody of the "National Cabinet of Curiosities" on condition that the necessary appropriations for the maintenance of the collections should be continued by Congress. The Congress has up to the present time made appropriations for the National Museum, no financial support coming from the Smithsonian Institution.

The treasures in the custody of the Museum are utilized to the world by exhibiting them to the public, and by encouraging investigations on the part of the officers of the Museum and other suitable persons, and facilitating the publication of the results; also by the distribution to other museums and educational institutions of duplicate specimens, which have formed the basis of scientific investigation, these being identified and labeled by the best authorities.

The Museum by these means fulfills a threefold function. 1. It is a *Museum of Record*, in which are preserved the material foundations of an enormous amount of scientific knowledge—the types of numerous past investigations. 2. It is a *Museum of Research*, by reason of the policy which aims to make its contents serve as fully as possible as a stimulus to and a foundation for the studies of scientific investigators, and its treasures are open to the use of any honest student. 3. It is an *Educational Museum* of the broadest type, by reason of its policy of illustrating by specimens every kind of natural object and every manifestation of human thought and activity, by displaying descriptive labels adapted to the popular mind, and by its policy of distributing its publications and its named series of duplicates.

The Smithsonian Institution has always been extremely fortunate in having the hearty coöperation of the various Departments of the Government in its scientific work. The Navy Department began in 1881 detailing naval officers and young ensigns for service in the National Museum. Under this policy Surgeon-

General Wales detailed Dr. J. M. Flint, Assistant Surgeon, U. S. N., in 1881, to take charge of the medicinal collections. Dr. Flint retained his connection with the National Museum for 31 years.

A full collection of the Materia Medica of the world was very early projected as one of the exhibits of the National Museum. In addition to the large amount of drug material obtained at the Centennial Exhibition, the Smithsonian Institution received the promise of aid by Schieffelin & Co., of New York. This firm volunteered to furnish the Museum a complete collection of the drugs then in use in the United States and Europe and sent a representative to the International Pharmaceutical Convention, held in London the summer of 1881, with the special object of obtaining certain obscure and unusual substances that could not otherwise be secured. In 1882 the Agricultural Department transferred to the Museum several large collections of drugs which it had obtained at the Centennial Exposition of 1876.

Great assistance in building up the collections was also rendered at this time by Parke, Davis & Co., Detroit; McKesson & Robbins, New York; Wallace Bros., Statesville, N. C.; etc.

During Dr. Flint's first year in the Museum he published two circulars: one on the "Classification and Arrangement of the Materia Medica Collection," and the other "A Classification of the Forms in which Drugs and Medicines Appear, and Are Administered." This list was prepared as the basis of a special exhibit to illustrate the forms in which medicinal substances appear in commerce or are prepared for administration by the pharmacist.

The attempt to obtain a complete collection of the official pharmacopoeias of all nations met with great success and Dr. Flint undertook to compile from these, for use in the arrangement of the collections, a list of all the articles of the materia medica of the world and the authorized preparations of each.

In 1898 the more comprehensive title of Division of Medicine was substituted for that of "Materia Medica," theretofore used, and the collections were developed along the lines adopted for other branches of human activity. At this time the attempt was made to illustrate the history of medicine, or the evolution of ideas concerning disease and the healing arts. The classification adopted included: Magical Medicine; Psychical Medicine; Physical and External Medicine; Physiological or Internal Medicine, including drugs; and Preventive Medicine.

The collection of drug plants soon became notable for the great number of carefully printed labels. Dr. G. Brown Goode, in charge of the Museum for many years, described an efficient educational museum as "a collection of instructive labels, each illustrated by a well-selected specimen."

During the year 1912, Dr. Flint, then Medical Director, U. S. N., tendered his resignation as Honorary Curator of the Division of Medicine, and it was deeply regretted that the severance of this connection deprived the Museum of his active participation in the further development of the Division.

As it was founded to illustrate on broad lines the theories and methods for the relief of sickness and injuries as held and practiced by man from earliest historic times to the present, the plan of this Division in the National Museum contemplates an extensive and comprehensive collection which shall be both interesting and instructive. There is a complete descriptive card catalogue of the collection.

If there were time, much might be told concerning the many valuable and interesting specimens comprising the National collections.

The collections of the United States National Museum are already unique by reason of their illustrations of the beginnings of many important American industries and inventions; as shown by the original pieces of apparatus belonging to the telegraph, telephone, phonograph, sewing machine, cotton gin, gasoline automobile, steamboat, etc.

The opportunity is here to gather up and to preserve in a National Institution in the National Capital, the many unique and unreplaceable objects connected with the beginning and early history of pharmacy in the United States, which can still be collected. Will not this Washington Branch of the American Pharmaceutical Association undertake the task?

THE CENTENNIAL OF CHEMISTRY

The centennial of the discovery of oxygen. This celebration at the grave of Priestley in Northumberland, Pa., in 1874, led to the formation of the American Chemical Society. Dr. Chandler is the seventh figure from the left in the second row. Mr. B. G. Amend, Professor Maisch, Dr. Fr. Hoffmann and Professor Bedford are in the center and Professor Remington is the bearded figure at the right of the background.