

100 YEARS

The doctor's bag in 1911

When students asked the celebrated Sir William Osler about the role of the physician of the day, he is quoted as saying “diagnosis, diagnosis and diagnosis.” Consistent with this, 80% of the 67 original articles in Volume 1 of the *Canadian Medical Association Journal* related to the description and diagnosis of a range of clinical problems.¹

The 19th century had seen remarkable advances in the tools to aid the physician to achieve a correct diagnosis. Since much of patient care continued to be provided in the home, the physician required a means to carry these instruments to the patient. This need was met with the development of the physician's black bag, which became the principle symbol of the physician in the community during this period.

Doctors making house calls needed a reliable bag specially fitted with compartments to carry an increasing number of instruments and drugs. A wide range of leather doctor's bags evolved from earlier wooden and leather chests and pocket cases. The black leather doctor's bag shown here is scuffed, reflecting many years of use by two generations of family physicians, in a small town in Eastern Ontario, who also served a large rural region from before the first war to the middle of the 20th century. These physicians were constantly travelling throughout the region to see patients in their home. This was an era when life expectancy was still short of the order of 50 years because of the constant presence of infectious disease and tuberculosis

Their bag is a club style with brass levered closures. The bag body is steel framed with five chrome feet. The interior is lined with vinyl. The one side has



Courtesy of the Museum of Health Care at Kingston

A black leather doctor's bag circa 1911.



Courtesy of the Museum of Health Care at Kingston

This hemaglobinometer (item 1) is housed in a black boxed set created by Leitz. Previously, anemia and blood loss was inaccurately determined by pallor and weakness. The measure of hemoglobin became an indispensable part of patient assessment.² This glass urinometer (item 2) in a graduated cylinder is composed of a mercury bulb, hollow hydrometer and stem with a specific gravity measuring scale. Specific gravity was a valuable indicator of renal function.³ This remains the gold standard today.

a long pouch and the opposite side a long piece of leather strapping divided into five loops to hold medicine bottles. The bag contains a wealth of diagnostic instruments of the day including a thermometer, stethoscopes, sphygmomanometer, tongue depressor, otoscope, ophthalmoscope, percussion hammer and laboratory equipment including a

hemoglobinometer and a urinometer reflecting the importance of the role of diagnosis. Although treatment options were limited, vaccination for the prevention of smallpox was a priority at this time. The doctor had some drugs and a few instruments for the management of emergencies in the home.

During the 20th century, hospitals

continued the transformation from a charitable institution to a centre of excellence for diagnosis and treatment. The techniques for diagnosis and treatment became more complex and, in conjunction with the increased role of surgery, required the staff and facilities of the hospital. At the same time the physician, particularly in the urban set-



Courtesy of the Museum of Health Care at Kingston

This long slender glass mercury prismatic clinical thermometer (item 1), carried in a Bakelite case, was able to record temperature in five minutes. It was developed by Clifford Allbutt in 1866.⁴ Soon thereafter the measurement of temperature became an essential part of patient assessment. This monaural stethoscope (item 2) was constructed in one piece of turned ebony with a hollow tapered ear piece and circular chest piece. The invention of the monaural stethoscope is attributed to Laennec in 1816; although many variations emerged during the 19th century. The binaural stethoscope (item 3) included a double outlet incorporating both a bell chest piece and a flat chest piece with rubber tubing and hard rubber earpieces. The first significant binaural stethoscope was patented in 1851. Many variations followed.⁵ The stethoscope played an important role in the diagnosis of cardiac and respiratory problems. This sphygmomanometer (item 4) with a leather pouch, a rubber bulb, valve and cloth-armed sleeve and a domed blood-pressure gauge was made by the Sanborn Company in Boston and patented in 1904. The first practical mercury sphygmomanometer was developed by Riva-Rocci in 1896. The systolic and diastolic sounds were described by Kororkoff in 1905 and became the basis for blood pressure measurement.⁶ This was essential for the diagnosis of hypertension. The Weeder tongue depressor (item 5) had a fenestrated, grooved end for tongue depression and a handle with a finger hook. It was an essential tool for oral assessment. This otoscope set (item 6) includes specula and other attachments in a velvet-lined case. The earliest otoscopes were very simple cone-shaped devices. The reflector otoscope became popular in 1862. It features an eyepiece with magnification at one end and a cone shaped speculum at the other end. An external light source illuminated the tympanic membrane.⁷ Dewecker's refraction ophthalmoscope (item 7) consists of a head with 24 lenses, one open aperture and a round concave mirror in a metal frame with an ivory handle. It is stored in a black leather case with satin and velvet lining. The first ophthalmoscope was described by Helmholtz in 1851. An extraordinary number of variations of this instrument followed with advances of the lighting and the reflecting lens.⁸ This permitted diagnosis in the inner eye. This Taylor percussion hammer (item 8) was an essential part of the neurological assessment.



One of the most important treatment options was vaccination for the prevention of smallpox. A spirit lamp was used to assure aseptic technique (item 1). This hollow pointed vaccinating lancet (item 2) features a metal hollow-pointed blade that swivels on a rivet between two horned handles. This is an example of one of the vaccinators developed during the 19th century for use in the campaign to prevent smallpox. Although prescriptions for drugs supplied by a pharmacy were increasing, many physicians continued to have a pocket medicine pharmacy case (item 3). This is a representative leather pocket medicine case, which opens with flaps on each side and contains two rows of twelve bottles. The physician provided the patient with the common emergency drugs. Item 4 is a set of catheters and Lister's bougies. The eight instruments in a leather case included four catheters ranging from size from 2 to 6, and three bougies ranging from size 3 to 7. Urinary retention was a major emergency that could be initially managed in the home, while bougies were used for the long-term management of urethral strictures.

ting, conducted their practice principally in the office. Thus the need for the black bag gradually decreased.

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