HISTORICAL SURGICAL INSTRUMENTS IN THE MUSEUM OF THE
ROYAL COLLEGE OF SURGEONS OF ENGLAND (6)

W. E. THOMPSON, LONDON, ENGLAND

Clerk of the Museum, Royal College of Surgeons of England

One of the Sections which was totally destroyed, except for four exhibits, was
Section "I"—Instruments for Operations on the Extremities. This Section contained
several cases of amputating instruments of the eighteenth and early nineteenth centuries,
various types of amputation knives, saws, artery forceps and tourniquets.

Of the four exhibits saved only two are worth mention. One, a case of amputation
instruments probably used at the Battle of Waterloo, has already been referred to in the
first of these articles. The second exhibit is the circular retractor seen in Figure 52. It consists
of two irregular metal plates hinged together with a pin, on which works a flat slide; two
handles, one of which is missing, were attached to the extremities of the plates. No figure
or reference to this retractor has been seen in Brambilla's (1782), Savigny's (1798), Seerig's
(1838) and other atlases consulted. It has been in the Museum for over eighty years, the
donor's name is not known, and no history is attached to the entry in the manuscript catalogue
of 1878, which simply states that it is "a circular retractor."

Fig. 52
Circular retractor of unknown date.

The phlebotomy bow seen in
Figure 53 was presented by Mr W. H.
Bailey and entered in the catalogue
as "A bleeding instrument, like a
cross-bow used by the Maltese."
Unfortunately no notes of this
exhibit, if any existed, have been
preserved, nor has the date of present-
ation been recorded. The fleam, with
a straight cutting edge, is mounted
on a wooden stem which runs in the
interior of the stock; the stock is cut
like an open mouth at its free end.
To operate the instrument, the bow-
string is drawn down and the
trigger inserted, thus holding the
fleam inside the stock. On withdraw-
ing the trigger the stem flies forward
and the fleam punctures the vessel
against which it is applied.

What is perhaps the oldest exhibit in the Instrument Collection is the bleeding bowl
seen in Figure 53. It is made of pewter and has a diameter of four and a half inches and
a depth of an inch and a half. Stamped on the bottom is a dove bearing a branch in its mouth,
the letters "R. B." and the date 1671.

Two examples of the eighteenth century spring fleam or German bleeding lancet are also
shown in Figure 53. The first consists of a plain oblong brass box containing the mechanism
for operating the fleam. This instrument is figured in Heister's System of Surgery (1753), and
one of a somewhat similar design is figured in Seerig's Armamentarium of 1838, where it is

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described as "the old bleeding fleam of an unknown inventor." Its mechanism is similar to that in the specimen shown above it. This second example is Heuermann’s spring fleam or bleeding lancet. It is a silver box ornamented with leaf patterns, and contains a triangular-bladed knife with trigger and spring. A lever, mounted on the outside, controls the trigger. The fleam, with two spare blades, is preserved in a case covered with green shagreen and lined with red plush. It is figured in Brambilla’s Instrumentarium Chirurgicum Militare (1782) and in Seerig’s Armamentarium (1838).
Among the many ingenious instruments invented by James Luke (1799–1881) is an example of his artery compressor for the cure of aneurysm (Fig. 54) presented in 1862. The apparatus was buckled round the limb, the pad being applied over the vessel. A binding screw allows the pad to be pressed on or relaxed as desired. In 1871 George C. Coles (1843–1880) presented three instruments which he designed, the first being a pad for elastic pressure in the treatment of aneurysm (Fig. 54). This pad is described by the inventor in the Medical Press and Circular of 1867 under the title "Description of an Instrument for the Treatment of Aneurysms by Elastic Pressure." The contrivance, writes the inventor, "consists of a trephine handle to the centre of which is fixed a stem, composed of three cylindrical pieces which fit into each other, the upper two of which each contain a spring, the lower one is solid and has attached to its extremity a small screw; at an obtuse angle to this screw several small pads of different sizes can be fixed . . . By placing this pad on the vessel to be compressed and holding the handle in the palm of the hand, any amount of pressure can be obtained . . . and by this means a steady uniform, elastic pressure may be obtained for any possible length of time." The second instrument is an artery compressor (also shown in Figure 54) which is a modification of Luke's model. Coles's third instrument is a model of the apparatus for compressing the femoral artery in the treatment of aneurysm or elephantiasis (Fig. 54). It was described in the British Medical Journal of 1871. This model was exhibited at the meeting of the British Medical Association at Leeds in 1869 and also at the Medical Society of London in 1870.

Early nineteenth century transfusion instruments, packed in a mahogany box, are seen in Figure 55. A brass plate on the lid of the box bears the following inscription: "Medical School, 58 Aldersgate Street. Mr Waller's obstetrical prize for the session of 1829–30 adjudged after a careful examination to Mr W. J. F. Wilson." The box contains a brass syringe, two mounts each with transfusion needle, a brass key and a metal funnel. The instruments were made by "Ferguson, St Bartholomew's Hospital, London," and were presented to the Museum in 1891 by Sir Erasmus Wilson, Bart.

The collection has many examples of cupping sets in cases, scarificators of silver and brass with a varying number of blades, and cupping glasses of different shapes and sizes. A leather-covered case contains two silver scarificators and a silver spirit lamp with the hall-mark date-letter for 1793 (Fig. 56). The case originally belonged to Dr J. Atkinson, a Brighton
surgeon, whose initials are inscribed on a silver plate on the lid of the case, on the spirit lamp and on each scarificator. The larger scarificator has ten blades and the smaller twelve; the spirit lamp is shaped like a teapot. A ten-bladed silver scarificator marked with the date-letter for 1828 is also seen in Figure 56. It formerly belonged to Dr Page Nicol Scott, of Norwich, and was purchased by the donor in Malvern in 1919. A hand scarificator (Fig. 56) consists of an ornamented bronze stem inserted in a chequered ivory handle. The other end of the stem divides into two branches, between which is a rod bearing six blades. It was presented in 1875, the donor stating that it was used many years before by a predecessor.

A case containing a set of artificial leeches, made by "W. Kidston & Co., Manufacturers, 18 Bishopsgate St., London. Red. Feb. 11th, 1850," is seen in Figure 57. The case contains two plated white metal tubes, or scarificators, joined at the base at an angle of 40 degrees. The shorter tube contains three fine lancets, and the larger a piston to form a syringe; there are also three glass syringes to suck up blood. J. J. Tweed (1819–1902), who writes as if artificial leeches were his own invention, was the author of an article in the Medical Times of 1850 entitled "A Description of the Apparatus for employing the Mechanical Leeches."

The Laennec stethoscope seen in Figure 58 is similar to that illustrated in the Plate in A Manual of Percussion and Auscultation composed from the French of Mericdec Laennec (a cousin of the inventor) by James Birch Sharpe in 1832, except that the obturator end of the auricular segment is cut sharp instead of rounded. The description states: "The drawing in this plate gives the simple and original form of the stethoscope as invented by the great Laennec..." René Théophile Laennec (1781–1826), the inventor of the stethoscope in 1819 and author of De l'auscultation médiate, first made use of a cylinder of paper, formed of three quires kept together by paste. He then experimented in wood, metal, glass, and beaten skin, and finally decided in favour of a cylinder of wood. There were originally five examples of Laennec stethoscopes in the Collection, four of them being destroyed by enemy action. Of the four lost, one was used by the inventor himself, and another was once the property of a pupil of the inventor.

The Weis-Czermak auto-laryngoscope seen in Figure 59 "belonged to Professor Willis, of Cambridge, and was used by him in his experiments on the voice." The Rev. Robert Willis, F.R.S., (1800–1875) was the son of Dr R. D. Willis, physician to George III. He was an authority on animal mechanism and contributed to the Transactions of the Cambridge Philosophical Society a memoir on "Vowel Sounds" (1828) and another on the "Mechanism of the Larynx" (1828–29).
Weiss-Czernak's auto-laryngoscope used by Professor Willis in his experiments on the voice.

Figure 58 shows "a pair of Perkins's tractors formerly in use at Bath, and much used as curative of many diseases" presented by Dr Charles Coates of Bath in 1878. These tractors, one of which is made of zinc and the other of copper, were in great demand over a century ago. Perkins, son of the inventor, wrote a work published in London in 1798 entitled *The influence of Metallic Tractors on the Human Body in removing various inflammatory diseases, such as Rheumatism, Pleurisy, some Gouty Affections, etc., etc., lately discovered by Dr Perkins of North America* and demonstrated in a series of experiments and observations, by Professors Meigs, Woodward, Rogers, etc., etc., by which the importance of the discovery is fully ascertained, and a new field of enquiry opened in the modern science of galvanism, or animal electricity. The College library possesses a copy of this publication. The tractors were invented by Elisha Perkins of Connecticut and were used in perfect good faith by the inventor. The points of the tractors were drawn over the affected parts for about twenty minutes. Perkins took out a patent for his tractors, and was expelled from the Medical Society of the State of Connecticut in 1800. He came to Europe, and when in London is said to have occupied the house in Leicester Square previously belonging to John Hunter. In Bath, the tractors became popular, and the pair illustrated were employed by a physician in that city, where however two medical practitioners had some false ones made and effected faith-cures just as well as by the genuine...
tractors. Perkins retained faith in his invention and when yellow fever was raging in New York he went there and endeavoured to cure the disease with his tractors, but fell a victim to the fever.

An artificial nose made of silver and fixed to the bridge of a silver spectacle frame is seen in Figure 61. The frame is so made that it can be adjusted over the top of the head and to the nape by means of slots and button-shaped pegs. On the inner side of each of the side pieces, close to the hinges, are engraved the initials "M.H." of the maker and a hall-mark, the lion rampant only being now distinguishable. A note in the catalogue states: "An artificial nose from the collection of the late James Merryweather. The patient presented herself wearing the said apparatus. She was also deficient in teeth, as well as in palate, the result of large doses of mercury for the cure of syphilis. She was married. Some years later she returned, with the nose in her hand, saying that she had lost her (first) husband and, marrying again, her present husband liked her better without the nose than with it. The nose was purchased for three pounds." It was presented in 1888 by Mrs Merryweather whose husband, James Merryweather, qualified M.R.C.S. in 1855.

In concluding this series of articles, I should like to express my grateful thanks to Mr S. Wood, Assistant in the Library, for reading my manuscript notes.

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