



RIPON MUSEUMS

Medical Objects Picture Quiz – Answers

Answer #1. Apothecaries' Weights

The Apothecaries' system of weights was used by Apothecaries and Pharmacists to measure out the ingredients of their medicines.

The smallest unit was the Grain. Apothecaries' measures for trade purposes were abolished by the Weights and Measures Act of 1976.



A table from a 1902 schoolbook shows the abbreviations used.

12

Apothecaries' Weight.

20 grains.....make.....1 scruple.....	Marked.
3 scruples.....1 dram.....	3
8 drams.....1 ounce.....	16
12 ounces.....1 pound.....	192

What is the use of Apothecaries' Weight?—
Apothecaries use this weight in mixing their medicines, but buy their drugs by Avoirdupoise Weight.

Answer #2. Clear glass baby feeding bottle, circa 1890s.

A rubber teat would have been attached to one end.



“In 1865, German chemist Justus von Liebig developed an infant food, first in a liquid form and then in a powdered form for better preservation. Liebig's formula—consisting of cow's milk, wheat and malt flour, and potassium bicarbonate—was considered the perfect infant food ([Radbill, 1981](#)).

By the end of the C19th there were many patented brands of infant food, in powdered form, consisting of carbohydrates such as sugars, starches, and dextrans that were to be added to milk. Name brands for the products included “Nestlé's Food®, Horlick's Malted Milk®, Hill's Malted Biscuit Powder®, Mellin's Food®..” ([Radbill, 1981](#), p. 619). The foods were fattening but lacked valuable nutrients like protein, vitamins, and minerals. The use of artificial formula was associated with many summertime infant deaths ([Wickes, 1953d](#)) due to the spoilage of milk left in bottles ([Weinberg, 1993](#)). This association was not understood, however, until the public accepted germ theory. Between 1890 and 1910, emphasis was placed on cleanliness and the improvement in the quality of milk supplies. “

A History of Infant Feeding [Emily E Stevens](#), RN, FNP, WHNP, PhD, [Thelma E Patrick](#), RN, PhD, and [Rita Pickler](#), RN, PNP, PhD *J Perinat Educ.* 2009 Spring; 18(2): 32-39.

Answer #3. Bandage roller, late C19th/early C20th.



Bandage-rolling might be a task given to ‘nurses’ – able-bodied inmates or lowly paid unqualified nurses. Bandages were commonly made from unbleached calico.

Answer #4. Cupping glasses



Even as late as mid C19th, medicine was based on beliefs and practices dating back to the Ancient Greek humoral theory of disease in which the balance of the four 'humours' contained in the body (blood, black bile, yellow bile and phlegm) was believed to be essential to health. When a patient presented with a disease that, for example, was deemed to be caused by too much blood, then blood-letting might be prescribed. Cupping and scarification was one means of doing this and the position on the body in which the cupping glasses were to be applied was connected to the disease it was attempting to cure.

The air in the glass was exhausted by burning a candle and the vacuum created in the glass caused the skin to be sucked into the glass on application. The theory was then that the excess humour was encouraged to the surface for easier dissipation. If the skin was not broken, this was sometimes called 'dry-cupping' and resulted in a blister, full of unwanted humours which might then be removed by piercing the blister.

Scarification (cutting or scratching the skin) would cause bleeding which was then accelerated by the cupping, and the blood removed would gather in the glass.

"Cupping was recommended... in the seventeenth century for a wide variety of diseases. It was thought particularly useful in cases of chest infection. Jean Feyens recommended cupping for many conditions which were caused by having too much wind in the body. If you had headaches so-caused, he said, then cupping glasses should be applied to the head, without bleeding. Alternatively, if wind caused you to suffer bloating or a 'puffing of the stomach' then 'a large Cupping-glass applied three or four times without Scarification to the belly, so that it may comprehend the Navel, doth often make a perfect Cure'. Feyens does warn that cupping won't help much in a case of colic, however. Lazare Rivière's mid-seventeenth century treatise on the diseases of women described how to use cupping to treat 'sickness of the womb'.

The sick woman must be laid upon the bed in such a posture that her neck and shoulders lie high and sloping, but her thighs and privy parts lie low, so the womb can be more easily reduced. Then must her lower parts be tied very hard so as to cause pain. Likewise they must be well rubbed and chafed. large cupping glasses were then to be set on her hips and pubic area. Take care not to apply a cupping glass upon the patient's navel, which many ignorant are wont to do, for that will draw the womb upwards again."

<https://earlymodernmedicine.com/guest-post-curious-cupping>

Answer #5. Urinary Catheters



Retention of urine is a common and painful consequence of an enlarged prostate gland in older men. It is likely that this would have been a problem for some of the inmates of the Workhouse, including those admitted via the Tramp's cells and the Medical Officer might have used a catheter to relieve their discomfort. Catheters were used as early as 3,000 B.C.E and many materials have been used, including straw, rolled-up palm leaves, the hollow tops of onions, as well as gold, silver, copper, brass and lead. Silver was an ideal material as it could be bent to a desired shape and was believed to have antiseptic properties.

RETENTION OF URINE.

“ A disease in which the urine accumulated in the bladder cannot be evacuated, or, at least, cannot be passed without extreme difficulty. In the former case the retention is said to be *complete*; in the latter, *incomplete*. Many writers have distinguished three degrees of this affection, to which they have given the names *dysury*, *strangury* and *ischury*. Retention of urine may depend upon loss of contractibility, paralysis of the bladder, &c., or on some obstacle to the passing of the urine, as in cases of pressure of the womb on the bladder, of tumors in its vicinity, foreign bodies in its cavity, inflammation of the urethra, swelling of the prostate, stricture, &c. The pain is extremely violent, and the bladder may be found distended above the pubis. The treatment consists in *introducing the catheter* or *puncturing the bladder*, and in combating the cause which has produced the retention by particular means adapted to each case.”—DUNGLISON.

A brief history of urinary catheters. Carithers G. B, Palumbo J.

Answer #6. 'Higginson's' Syringe, invented 1850s



An instrument used for giving enemas Squeezing of the rubber bulb sends liquid from one end submerged in liquid via a one-way valve to the other end fitted with a tapered nozzle which may be inserted into a body cavity. Most often used as a means of giving an enema.

Apart from being used then, as they are still today, to cleanse the bowel or as a way to deliver certain medicines, in the C19th and early C20th (before the days of intravenous infusions or 'drips'), enemas were also a means of putting at least some fluids and nutrients into the body. Although the large bowel is not the most efficient part for absorbing nutrients, a little is better than none at all.

In Psychiatry for the Rich: A History of Ticehurst Private Asylum 1792-1917

Charlotte MacKenzie cites the C19th case of an asylum patient with severe inflammation of the mouth, unable to take food by mouth, so was given nutrient enemas of 'one egg, one ounce of brandy, and one ounce of a strong mixture of Liebig's extract*' every five hours.

*concentrated extract of beef

'Home Nursing' St John Ambulance Association, 1922. London.pp125

'Medicinal Enemata'

Olive Oil enema	6 oz, warmed, to purge or cleanse the bowel
Glycerine enema	1 or 2 drachms, warmed, " "
Starch enema	A teaspoonful of starch added to 2 oz water to check diarrhoea
Saline enema	1 teaspoonful salt to 1 pint water (+/- ½ oz glucose) for 'collapse'

'Nutrient Enemata'

Egg & Milk enema	1 egg yolk beaten into 4 oz heated milk, add 20 grains bicarbonate of soda, 30 grains salt and 1 oz 'pancreatic solution'*
Egg, Milk & Brandy enema	Add ½ oz brandy to 3½ oz of the above immediately before giving
Peptonized Beef Tea enema	Add 1 teaspoonful of 'pancreatic solution' & 20 grains bicarbonate of soda to a pint of beef tea, warm & strain.

* solution derived from animal pancreas, containing pancreatic digestive enzymes

Answer #7. Pill Roller



A pill 'mass' would first be prepared by a pharmacist or apothecary with a pestle and mortar using a mixture of dry active ingredients and a binding agent such as glucose syrup.

The resulting paste was then hand-rolled into an even length and was then placed along the brass cutting grooves of the larger part of the pill machine. The smaller, grooved part of the machine was then pushed backwards and forwards over the top, dividing the mixture into equal, roughly rounded pieces.

The pieces were then shaped with a pill rounder (not shown) until spherical. The pills were then dried and varnished with a mixture of resin, alcohol and ether or coated with talcum powder.