

## The Turner Collection

### School of Pharmacy and Pharmaceutical Sciences, Cardiff University

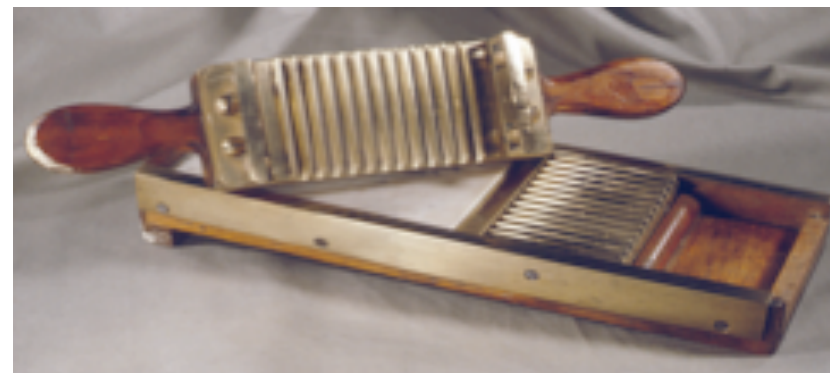
#### Cachet machine

The cachet is a dosage form that has become extinct. It was developed in the 1800s so that patients could take bitter powdered medicine more easily. The pharmacist would use a cachet machine, a special device, to enclose measured doses of powders within two rice paper halves. The patient was advised to dip the cachet in water and then swallow it with a glass of water. Although they were never as popular in Britain as in France, cachets continued to be used here into the 1950s to help tuberculosis sufferers to swallow regular large doses of the bitter powdered medicine, p-amino-salicylic acid.



#### Pill machine

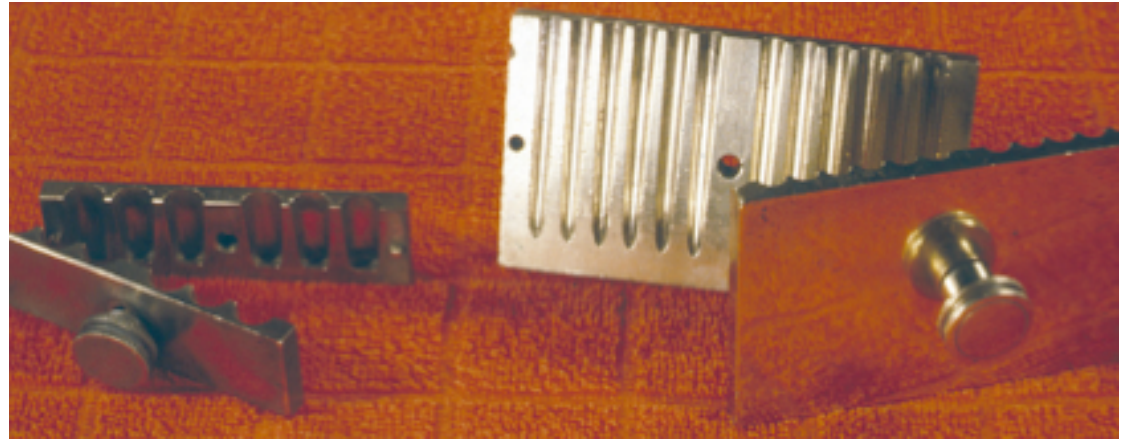
We often use the words “pill” and “tablet” to mean the same thing, but they are actually totally different forms of medicine. Pills are no longer available, but were made by hand by pharmacists for many centuries. They would combine a measured quantity of powdered ingredients with powdered liquorice and a thick sticky substance, usually liquid syrup of glucose, to form a “pill mass” in a specially-shaped mortar.



This mass then needed to be sub-divided into individual pills, each the same size sphere. From the mid-1800s, the pharmacist would use a pill machine to roll out the mass into a “pipe” which could then be cut and rolled into individual pills using the brass cutting strips of the mahogany pill machine. Before selling them to the customer, he could leave them to dry and then coat them in starch, or perhaps silver or gold leaf, and then package them in a round pill box.

## Suppository and Bougie Moulds

Pharmacists would make suppositories and bougies on the premises, and so pharmacy students had to learn how to produce them successfully. They were made by incorporating medicaments into a base of melted cocoa butter, or glycerine & gelatine. Once poured into a mould, they were allowed to set before the pharmacist freed them & packaged them for the patient.



Their key feature was that the base melted at body temperature once they had been inserted into the body. Suppositories were inserted into the rectum and bougies were for the nose or urethra. It was vital that the pharmacist was able to make each suppository or bougie successfully with active ingredients distributed equally between each one.



## Counter Balance

People have used scales and balances to weigh substances accurately since ancient times. Hand-held scales have been found in Mycenaean graves dating from around 1400 B.C. and pharmacists still found them to be a useful tool into the nineteenth century. The beam balance with a pivot on a stand was first developed in the late 1400s. Balancing the beam on a knife edge, often made of agate, increased its sensitivity and accuracy. By the 1700s, the beams were boxed in to provide added protection. Pharmacy balances often stood on a box with a drawer that contained the weights needed to measure out ingredients.

**Brass mortars:** The mortar and pestle is still used as a symbol for pharmacy. Grinding a substance by using two hard surfaces is something that humans have been doing for thousands of years to prepare food, medicines and dyes. Mortars in the form that we know them in pharmacy were certainly used by the ancient Persians and Egyptians. Pharmacists used mortars made from wood, metal, glass, ivory and stone, but these were taken over by a new kind of material called biscuit porcelain. It was invented by Josiah Wedgwood in about 1780 and was perfect for pharmacy because it did not contaminate the substances that were being crushed or mixed. Mortars have come in many shapes and size. In pharmacies or factories from the 1800s or earlier, enormous metal mortars were mounted on wooden blocks or tree trunks and used with a huge pestle often hung from the ceiling. Pharmacists used smaller mortars on their counters to crush, grind or mix ingredients. Special waisted mortars, often double-ended, were developed to help the pharmacist to combine the ingredients needed to make pills.



**Ribbed shop rounds:** Glass bottles were widely used by pharmacists to store ingredients and preparations on their shelves from the middle of the 1800s. Known as shop rounds, the bottles were designed to be seen by customers. They were made of colourless or coloured glass with decorative labels describing their contents, usually in abbreviated pharmaceutical Latin. You can tell that a shop round contained a poison if it is ribbed. Contrary to popular belief, a bottle's colour is not a reliable guide. Poison bottles were required to be ribbed from about 1900 onwards, so that a pharmacist in a hurry or an assistant that could not read would have the best chance of avoiding a dangerous mistake. Previous solutions included labels made from sandpaper and bells hung around poison bottlenecks.



## Treen bottle covers

Items made from wood, not just for pharmacy, are known as treen, particularly by their many collectors. Pharmaceutical treen includes a number of containers and devices, usually beautifully made out of boxwood. These bottle containers protected their glass contents and kept their medicines out of the light. They were particularly useful for taking bottles on a journey and were popular with dispensers on ships.



## Invalid or baby food warmer

Pharmacists sold a range of products that they might have called “chemist’s sundries.” These included items for babies, mothers and invalids. Clarkes produced a range of nightlights and baby food warmers in the years around 1900. This “Pyramid” warmer used a night light candle to heat baby food in the ceramic cup.

## Bloodletting kit

This kit contains an instrument known as a scarifier which was used to scarify or scratch into a patient's skin. A series of spring-activated half-moon knives move across the slits in the device to cut the skin. It was used either for 'bleeding' the patient into the glass 'cupping' flasks provided, or to lance a boil or carbuncle.





