Trade names that have become generic names in anaesthesia

INTRODUCTION

A trade name, also known as a trading name or business name, is the name that a business trades under for commercial purposes. It is also known as brand name. Trade names, unlike patents, can be renewed forever as long as they are used in business.

Generic name is the name of a successful and usually first product, used commonly by people to name an entire category or class of products.

Everyday life is replete with trade names that have become generic names. E.g., Fridge, Xerox, Velcro, Google, Jeep, Cellophane, Escalator, etc.

In anaesthesia, we have some trade names that, by frequent use, have become generic names. Therefore, all the manual resuscitators came to be known as Ambu bags, continuous flow anaesthesia machines as Boyles machine, variable orifice gas flow meters as Rotameters, polyvinyl chloride endotracheal tubes as Portex tubes, 50% oxygen 50% nitrous oxide mixture as Entonox and cinchocaine when used to determine abnormal anticholinesterase as Dibucaine.

AMBU

The word Ambu has come from the Latin word “ambulare” meaning “to walk”. The ambu bag was given its name because it can be used anywhere and not just in a hospital. The bag was invented in 1953 by the German Engineer Dr. Holgar Hesse and the Danish anaesthetist Henning Reuben. In 1956, it was marketed under the brand name Ambu bag. The bag became so very successful that the company name was eventually changed to Ambu.\[1\] (Previously, the company had been called Testa Laboratory.) A newsletter from Ambu dated 1976 states one more possibility about the origin of the word, i.e. the word AMBU consists of the initial letters of the words Air, Mask, Bag and Unit.

Although many companies produce the bags under different names, the name Ambu has engrossed in peoples minds so much so that people still use by the trade name Ambu only.

The other bags are Air-Viva, Air-Viva2, Airox, Laerdal, Ohio, PMR, PMR2, Penlon, Robertshaw, Sabre/Sussex and Vitalograph.\[2\]

BOYLES MACHINE

Boyles machine was invented by Henry Edmund Gaskin Boyle in 1917. Boyle was born in Barbados and qualified MRCS and LRCP from Bartholomew’s Hospital in London.

His machine was a modification of the American Gwathmay apparatus of 1912. The Boyles apparatus was first made by Coxeter & Sons, which was later acquired by the British Oxygen Company. Boyle was the trade name of BOC. It was named so to respect the inventor, Boyle.

However, Boyle was not the pioneer in manufacturing anaesthesia machines. Two other great men had done excellent work before him. One was James Taylor Gwathmey who was practicing in New York who invented the Gwathmey machine in 1912.

Later, Geoffrey Marshal developed a machine during the First World War (1914–1918) based on the Gwathmey machine. This machine was made by Coxeter, the apparatus manufacturer, who later made Boyle machine.
Boyle, who developed his machine from Gwathmey’s basic model in 1917, presented his invention at the Royal Society of Medicine in London in 1918. Even though Marshal had developed his machine much before Boyle, he presented his machine before the medical community in 1919, much later than Boyle. All the credit had gone to Boyle, although Gwathmey and Marshall had developed their machines before him.

Boulton, who had researched the contribution of Geoffrey Marshal, suggested in 1992 that the generic term anaesthesia machine should be used instead of the Boyles machine, or that Marshal or Gwathmey be given their due credit also.[3]

BOC no longer exists. First, it was merged with Air shields and came to be known as Medishield. Later, it was combined with Ohio and came to be known as Ohmeda. Ohmeda was later bought over by the Linde Group of Germany in 2005.

In India, in 1950, Boyle machines were produced in Kolkata by the Indian Oxygen Company, which was a subsidiary of the BOC, which later changed its name to Indian Oxygen Limited. We had Boyle Basic, Boyle E, Boyle F, Boyle G, Boyle H Boyle M, Boyle major and Boyle International models.[4] The Boyle trade mark is registered in India with Boyle Health Care Pvt. Ltd., Indore.

Many other machines are available in India. In 1958, the Marret Machine of Air-med was imported. Another machine introduced was the Ohio machine of Chemical and Surgical Equipments. Drager India also came into our country around that time. First, it was imported by Parrys India. Later, it was manufactured under the name of Usha-Drager. The Foregger machine was imported from the USA and marketed as Foregger–M. N. Desai model.

Now, Meditech Engineers Pvt. Ltd. is making a basic anaesthesia machine under different models, namely ME-15, ME-16, ME-14 and ME 202.

But, in hospitals in small towns and villages, the Boyle G or H model machines are the ones still available.

**Rotameter**

Rotameter is the variable area constant pressure flow meter found in all modern anaesthesia machines. It is the final development in a line of earlier flow meters like Coxeter, Heidbrink, McKesson and Connel. The assembly consists of three or four tubes known as Thorpe tubes with metal floats inside, placed inside a transparent box with adjustable knobs for fine control at the base of the rotameter bank.

The brand name Rotameter was registered by the British company GEC Rotameter Co., in Crawley and still exists, having passed through an acquisition chain. The first variable area flow meter was invented in 1908 by Karl Kuppers for industrial purposes. It was first used in anaesthesia in 1910 by Maximilian Neu. Modern anaesthesia machines have a virtual Rotameter and digital display for quantity of gas flow.

**Portex Tube**

In 1878, William Macewen, a surgeon, performed the first oral intubation using a flexible brass tube having a diameter of 3/8 inch. Later, Ivan Whiteside and Edgar Stanley Rowbotham Magill introduced intubation using a rubber tube used for industrial purposes. Later, Rusch of Germany made the first medical red rubber tube.

In the years between 1944 and 1950, plastic tubes of vinyl material were introduced. These tubes were initially white, opalescent. Later, in the early 1960s, the Portex company introduced disposable clear Polyvinylchloride (PVC) endotracheal tubes that gradually replaced the red rubber tubes.

It is interesting to learn how the Portex company got its name. In 1940, Dr. S. A. Leader, a dentist, was experimenting with the use of plastic in the medical and dental fields. His ideas led him to set up a company named Portland Plastics in Kent. In 1957, Portland Plastic was taken over by Smith Industries. In 1967, the company changed its name to Portex.[5] The company had later received the Queens award for technical excellence for design, development and manufacture of the tube and the cuff. After Portex, many companies produced PVC tubes, but the name Portex stuck on.

**Entonox**

In 1961, Tunstall et al. described the medical use of a pre-mixed gas of 50% nitrous oxide and 50% oxygen as an analgesic at childbirth. This led to a pre-mixed gas patent and Entonox introduced by BOC Medical. Now, Entonox is the trade name of BOC Medishield. BOC India has introduced the same in India.
**DIBUCAIN**

The pharmacological name is Cinchocaine. It has got other trade names, namely Nupercaine, Percaine and Sovcaine. But, the name Dibucaine is the name commonly used for cinchocaine when it is used for determining abnormal pseudocholinesterase activity.

Cinchocaine was synthesized by Meischer in 1925. It is more toxic than cocaine and lignocaine. It was used in hyperbaric and hypobaric spinal anaesthesia. But, now, it is no longer used in spinal anaesthesia due to its toxicity. Now, it is used as a surface anaesthetic 1% on delicate mucous membranes for the treatment of anal fissures, painful piles and proctoscopy.

Abnormal pseudocholinesterase can be detected by determining the Dibucaine number in the serum of the individual.

Dibucaine is the original trade name of Cinchocaine.

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