The Story of North British Rubber

If romance can anywhere be associated with business, it is surely to be found in the origin, growth and development of The North British Rubber Company. When Thomas Hancock in England discovered the vulcanisation of rubber in 1846, about the same time as Charles Goodyear made a similar discovery in America, he took out a patent for England. In these days the Patent Laws did not apply to the whole of the British Isles. This flaw was noticed by an American, Henry Lee Norris, who came to Edinburgh from New York in 1855 and brought over with him a small company of skilled workers—3 women and 1 man. This was the first step to the establishment of one of the major industries of Scotland.

The North British Rubber Company was registered as a Limited Liability Company in September, 1856, with Henry Lee Norris as Managing Director. At first, manufacture was entirely devoted to rubber footwear of the overshoe type called Goloshes, but gradually the variety of products made from rubber was increased until to-day the Company manufactures over one thousand different articles. It is interesting to recall that rubber conveyor belting, so important in industry to-day, was first patented by North British. The first detachable pneumatic tyre was also produced by the Company. In addition to footwear, many of the articles manufactured now are used in the home and familiar to all of us—hot water bottles, rubber flooring, vulcanite combs, to mention only a few. Every time we travel by bus or train we ride on rubber. Tyres are made of rubber and the seats in buses and trains are largely upholstered by sponge rubber. In one form or another rubber enters into practically every aspect of our daily lives. There is hardly any industry in which rubber is not used in some way or other and, in many instances, it is the complete answer to a manufacturing problem.

THE NORTH BRITISH RUBBER CO. LTD.

Head Office : CASTLE MILLS, EDINBURGH, 3

Factories : CASTLE MILLS, EDINBURGH, and HEATHHALL, DUMFRIES

Home Branches :	Belfast, Birmingham, Bristol, Edinburgh, Glasgow, Leeds, Leicester, London, Manchester, Newcastle-on-Tyne.
Overseas Branches :	Amsterdam, Cape Town, Copenhagen, Johannesburg, Oslo, Paris, and Agencies and Stockists throughout the World.
Manufacturers of all kinds of Rubber Products :	Giant Car, Aircraft and Motor Cycle Tyres and Tubes ; Rubber Footwear ; Casual and Sports Shoes ; General Mechanical Goods ; Rubber Flooring ; Conveyor Belting ; Hose ; Printers' Blankets ; Hot-water Bottles ; Hospital Sheeting ; Vulcanite Combs and Vulcanite Products ; Waterproofs and Rubber-proofed Industrial Garments ; Golf Requisites.

Intriguing Manufacturing Process

The bulk of our raw rubber supplies come from Malaya and arrive at the factory in bales weighing approximately 2 cwts. each. These are stored by grades in a warm atmosphere. When required for use the bales of rubber are cut by machine into wedges, which are then blended by mixing with other grades of rubber. The crude rubber is masticated or softened in the Banbury or ground on a 2-roll mill. The masticated rubber is then mixed with chemicals in a Banbury Mixer, under heat and pressure, and after about ten minutes the compound is dropped into an 84" mill where sulphur is added. The compounded rubber is then cut off the mill in sheets and cooled by passing through a water bath before being stacked.

Rubber Flooring and Conveyor Belt

The slabs of compounded rubber are then passed through smaller mills to the Calenders and rolled out in thin sheets for flooring, conveyor belt covers, waterproof footwear uppers and outsoles. The Calender is also used for impregnating fabric used in the manufacture of footwear and conveyor belts. The sheeted rubber used for flooring is passed to the Rotocure machine, where it is vulcanised. Now the impregnated fabric, together with belt covers, are passed to the belt-making tables, where the complete belt is built up prior to being vulcanised on the Rotocure.

Preparatory Work in Footwear

At this stage, raw materials for use in footwear are passed to the Cutting Department, where all fabric parts used in our fabric footwear are cut on Beam Presses and waterproof parts are cut with Hot Dies. Insoles are rubber cemented and outsoles cut and stored on boxes prior to being sent to the Making Department.

The fabric parts are then sent to the Stitching Department, where the complete upper is stitched together and eyelets inserted. From here they are passed to the Making Department, where the shoes are built on

lasts on a moving conveyor. Similarly, waterproof parts are passed from the Cutting Department to the Waterproof Making conveyors, where boots and overshoes are built up on lasts.

Vulcanising Boots and Shoes

When the making operations are complete, the boots and shoes are removed from the conveyor and loaded on to heater cars which transport the footwear on overhead monorails to the Vulcanisers for vulcanisation.

Prior to being vulcanised, all waterproof footwear is dipped in varnish, which gives that well-known high-gloss finish. Each vulcaniser can hold six heater cars, on each of which as many as three hundred pairs of shoes may be loaded. The footwear is subjected to heat and pressure for a given period, and on removal from the vulcaniser the cars are moved to the stripping area, where the shoes are stripped from the lasts on to a conveyor belt which carries them down to the Packing Department.

All shoes and boots are carefully examined and graded prior to being packed in boxes and cartons for shipment to our Warehouses.

Why we came to Heathhall

As the demand for colourful footwear such as casuals, sports shoes, and styled overboots has increased, we decided to look around for a factory away from the grime and soot of a large city. The Heathhall factory met our requirements admirably with its airy and congenial surroundings and within easy reach of Dumfries.

Although the factory was built in 1912, it is very modern in design and layout. It has been equipped with the most modern machinery and is one of the finest footwear plants in the world. In addition to a variety of styles of rubber footwear, conveyor belting and rubber flooring are manufactured at Heathhall. To-day there are no fewer than 950 employees, and The North British Rubber Co. are now the largest employers of labour in the district.

With a weekly pay-roll amounting to £5000, the Heathhall factory plays a large part in the economic life of Dumfries and the surrounding districts.