

UV rays to prevent caries

By Brian Williams¹

Like electricity in the 1920s and 30s, ultraviolet (UV) radiation was very popular as a panacea for many ills. For example, it was common for large areas of skin to be irradiated to stimulate vitamin-D production in the fight against rickets, while smaller areas were often targeted to eradicate local dermal blemishes.

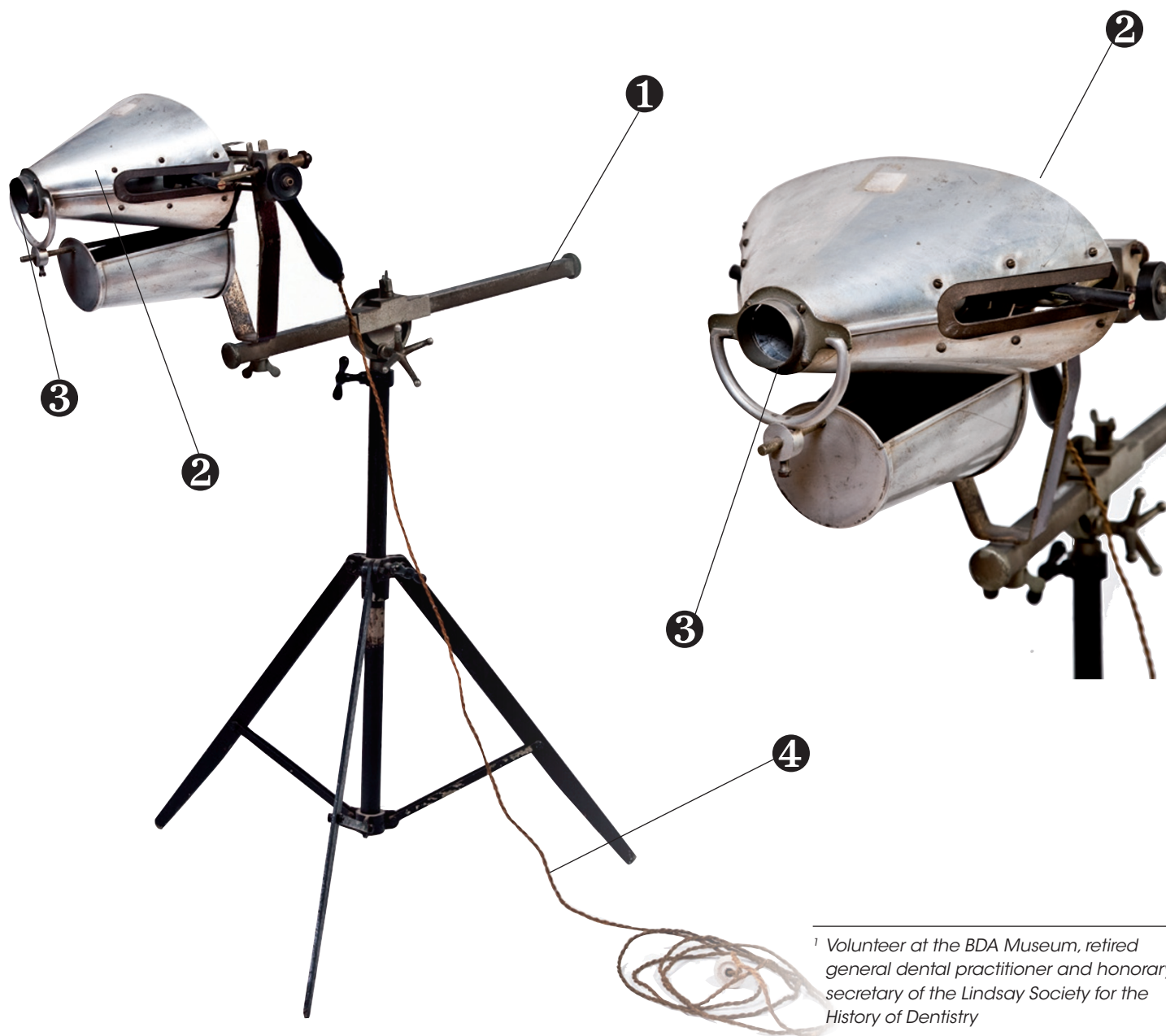
Great 'dental' claims were made for the benefits of UV rays – notably the prevention of caries! But gingivitis, stomatitis, Ludwig's angina, Vincent's angina, sinuses, fistulae and

many more oral conditions were all claimed to be much improved or cured by the rays. Fortunately, some proponents of UV were professional enough to advise the removal of the causative agent before irradiation.

The apparatus pictured was made by Arnold & Sons of London in the 1920s. It consists of an electric arc that uses a compound of carbon and tungsten to produce radiation rich in UV light. The UV lamp was easily portable and adjusted by means of the lightweight tripod stand **1**. Metal shields and tubes **2** enclose and protect the arc while allowing radiation to be emitted

through the small aperture **3** at the end of the tube onto a small patch of skin or directly into the mouth. Alternating current is supplied through a cable **4** attached to the back of the shielding.

One treatment regime involved a first exposure for one minute with each successive exposure increasing by a minute every two days. If blistering of the mucosa occurred it was recommended a week should elapse before continuing with treatment. But the size of the dose and the length of the treatment depended very much on the operator.



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