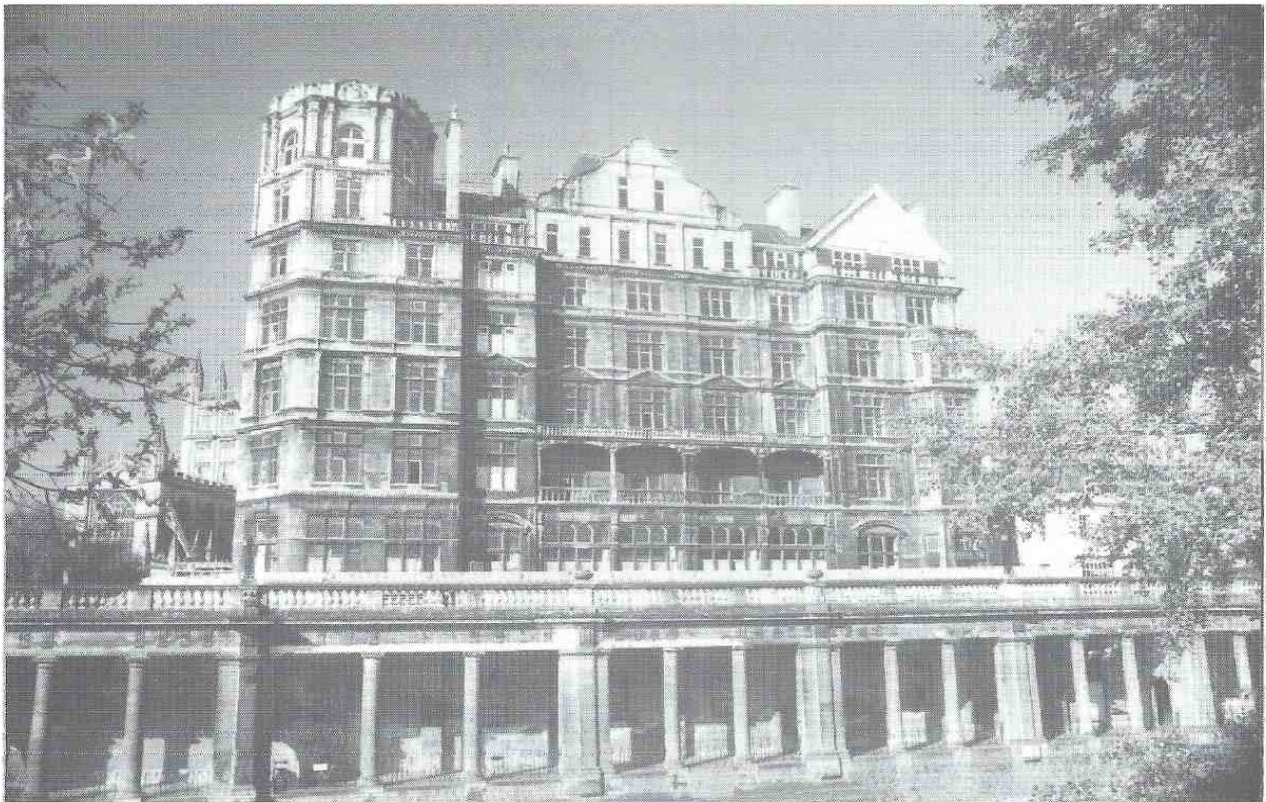


Drain detail for mixing tank



Empire Hotel, Bath from the Parade Gardens, May 1995

Excavations on the site of an Aerated Water Manufactory at the Empire Hotel, Bath, 1995

Marek Lewcom

When the Empire Hotel in Bath was planned by Major Charles Davis in 1899, preparatory works on a grand scale were made necessary. East of the medieval Lot Lane, which linked Monks Mill on the banks of the Avon to the East Gate of the city proper, the few remaining buildings were demolished like the adjacent site of the former slaughterhouses which had suffered the same fate some years previously. The foundation trenches for the hotel walls were cut through what was left and then, using a variety of materials which included waste mod-variety of materials which included waste products from the red ware pottery and clay tobacco pipe factory (Milk Street) of Joseph Sants,¹ an artificial terrace was raised up to the new basement level. On the west side of Lot Lane a long surviving length of the city's Roman wall and its medieval additions was demolished and virtually all that remained of the once-fashionable eighteenth century Orange Court development was terraced away. A few cellars in the extreme south-west corner of the new development fortunately escaped the massive clearance operations to make way for the hotel.

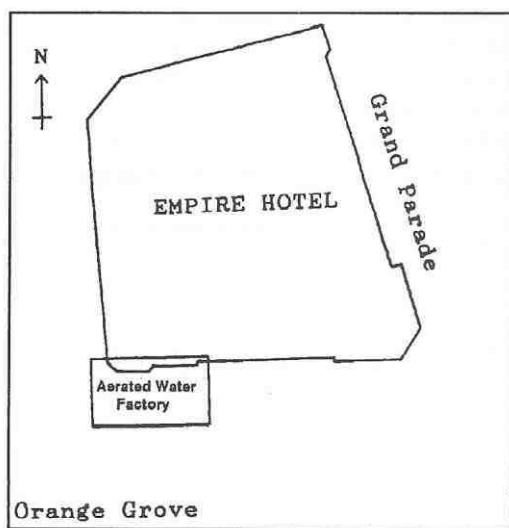


Fig. 1 Location plan

The cellars which had been left (Fig. 3) belonged to No 10 Orange Grove. A tavern originally occupied the site, restored in 1648 as the Bowling Green alehouse by Walter Werratt. This was taken over in the early 1730s by Thomas Atwood, who re-fashioned the building in about 1740 and annexed it to his lodging house on the opposite side of Lot Lane; the landlord simply moved next door to what was to become the Star (later the Sun) tavern.² By the mid-nineteenth century the building, now with its fresh identity as No 10 in the Orange Grove, had declined in

fashion and become a manufactory for the production of mineral waters and associated drinks. The facade as it appeared in the mid-nineteenth century was illustrated in the Bath Directory of 1860-61 (Fig. 2).

When the Empire Hotel was completed and opened in November 1901, the cellars were hidden away and forgotten, continuing that way after September 1939 when the hotel was requisitioned by the Admiralty. It was not until 1989, when as the Ministry of Defence the Admiralty finally vacated the building, that the public eye was able to inspect the structure as a whole. It was soon disco-

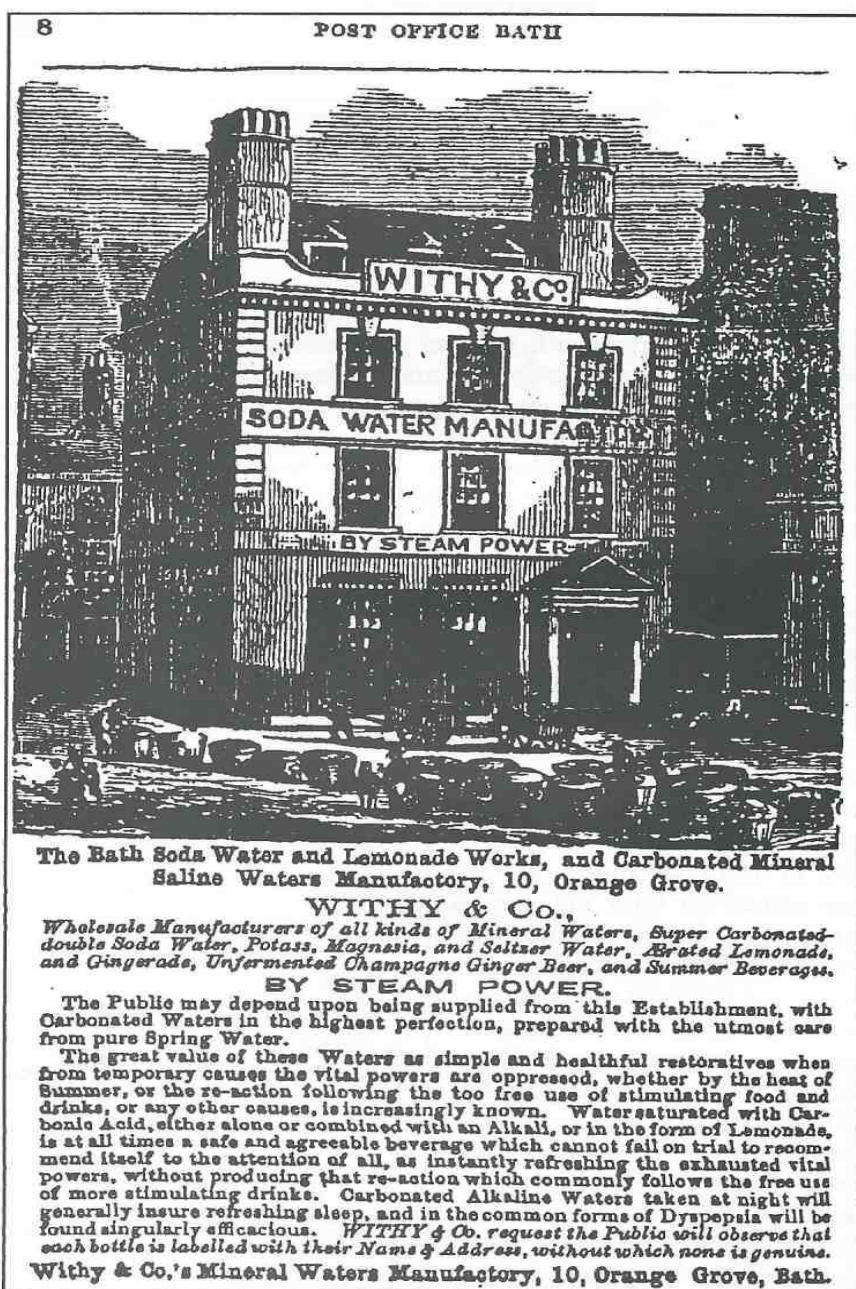


Fig. 2 The manufactory, as advertised in the Post Office Bath Directory 1860-61, when occupied by Withy & Co

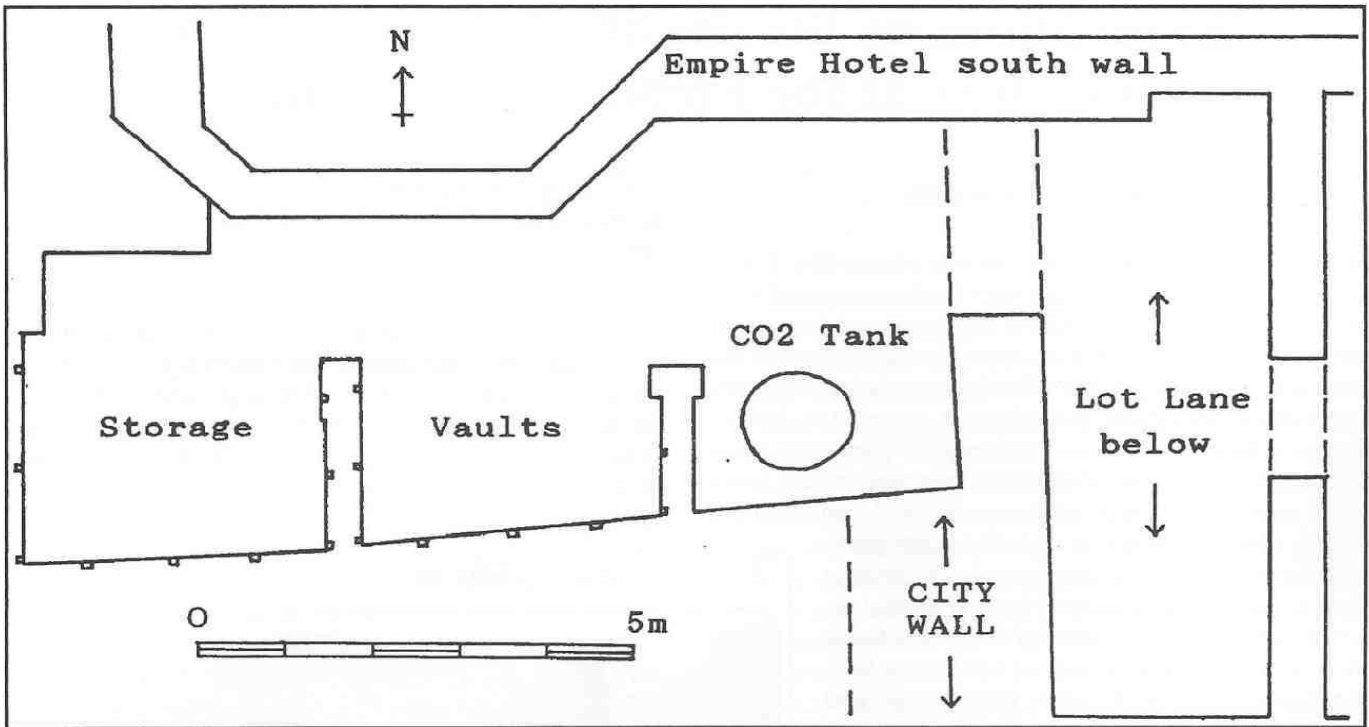


Fig. 3 Plan of the surviving cellars of the aerated water factory at 10 Orange Grove, Bath

vered that a small portion of the city wall, the antiquity of which has now been proved to be Roman, still stood to a height of over two metres under the tea terrace and pavement below the south front of the hotel. Subject to several schemes of redevelopment and proposals of demolition, the Empire Hotel was finally taken over by Pegasus Retirement Homes plc in 1995. In advance of alterations to the basement area, Bath Archaeological Trust undertook the excavation and recording of all areas and features either threatened by or at risk from the development.

The pavement above the city wall and its supporting iron girders were in a dilapidated state, and new concrete pillars below it were therefore necessitated. As a result, the investigation of the city wall and its recording became a priority. It then, during July and August of 1995, became apparent that somewhat later but just as equally interesting remains of industrial archaeological significance had survived the construction of the hotel. Upon lifting the floor of the cellar immediately to the west of the narrowed city wall, what at first seemed to be a large well appeared to have destroyed the lower foundations of the ancient wall's original width. Closer inspection and excavation, however, revealed it to have in fact been a mixing tank for the production of carbon dioxide gas to

aerate the water for the drinks produced on the site. The process usually involved the mixing of sulphuric acid and water, with an injection of chalk acting as a catalyst; the gas itself would have been gathered and stored in a rising pressurised chamber above it. Adjacent to the tank two earlier drains and their contents, chalk residue and thousands of fine splinters of bottle glass (the latter derived from bottles which were either inferior in the purity of their glass and shattered as a matter of course or which were over-pressurised in their aeration - indeed, an advertisement by Withy & Co in 1860 refers to the produc-

tion of super

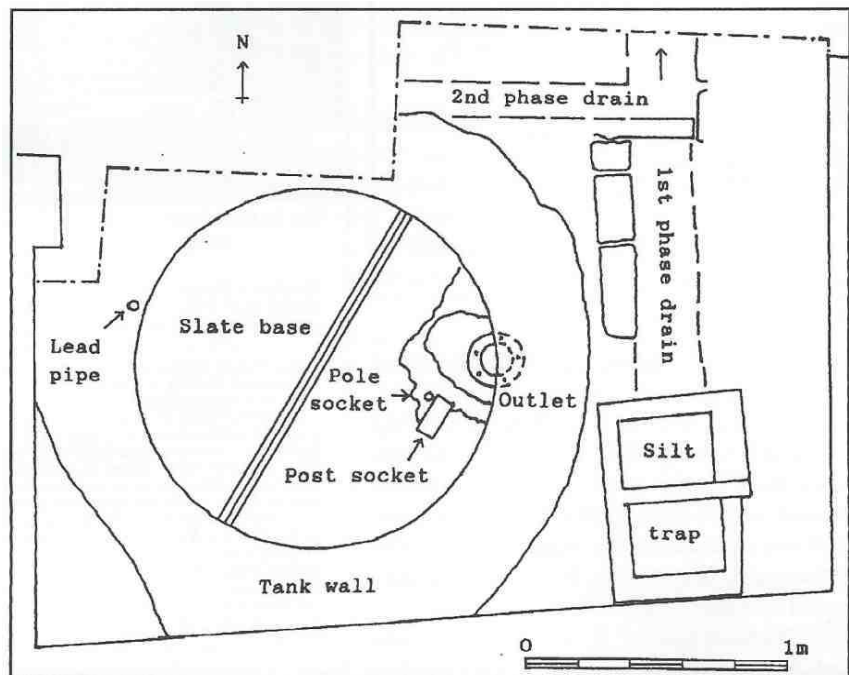


Fig. 4 Plan of the cellar containing the carbon dioxide tank

carbonated double soda water), demonstrated

that the surviving tank was at least third generation in this process on the site (Figs. 4 and 5).

The tank was constructed of limestone blocks bonded by grey mortar. This had then been lined with a hard brown cement which served as a bonding agent for a series of narrow upright slate panels which lined it with hygienic interests in mind; only two small portions of these slate panels survived in situ, though numerous broken fragments were found in the 1899 infill. A narrow lead pipe, which presumably conveyed one of the mixing agents, was accommodated on the west side and entered at base level, where it had been robbed out in 1899. The base consisted of two semi-circular slate panels, separated by two narrow upright lengths; each of the two larger panels overlaid similar horizontal slates. Overall, the tank had an internal diameter of 1.34m and a height of approximately 2.10m. Directly above its centre and set into the roof of the vault, two perforated iron brackets probably supported and stabilised the gas chamber above it. The original drain outlet had been removed during the tank's lifetime and replaced by a ceramic pipe half-set within the wall on the lower east side; sockets for the wooden pole and metal rod related to its opening and closing mechanism survived cut through the slate base (Fig. 5). The drain cut through the city wall, which was then rebuilt over it, and flowed eastwards into the drain below Lot Lane (Fig. 6) which itself discharged directly into the River Avon - not particularly hygienic.

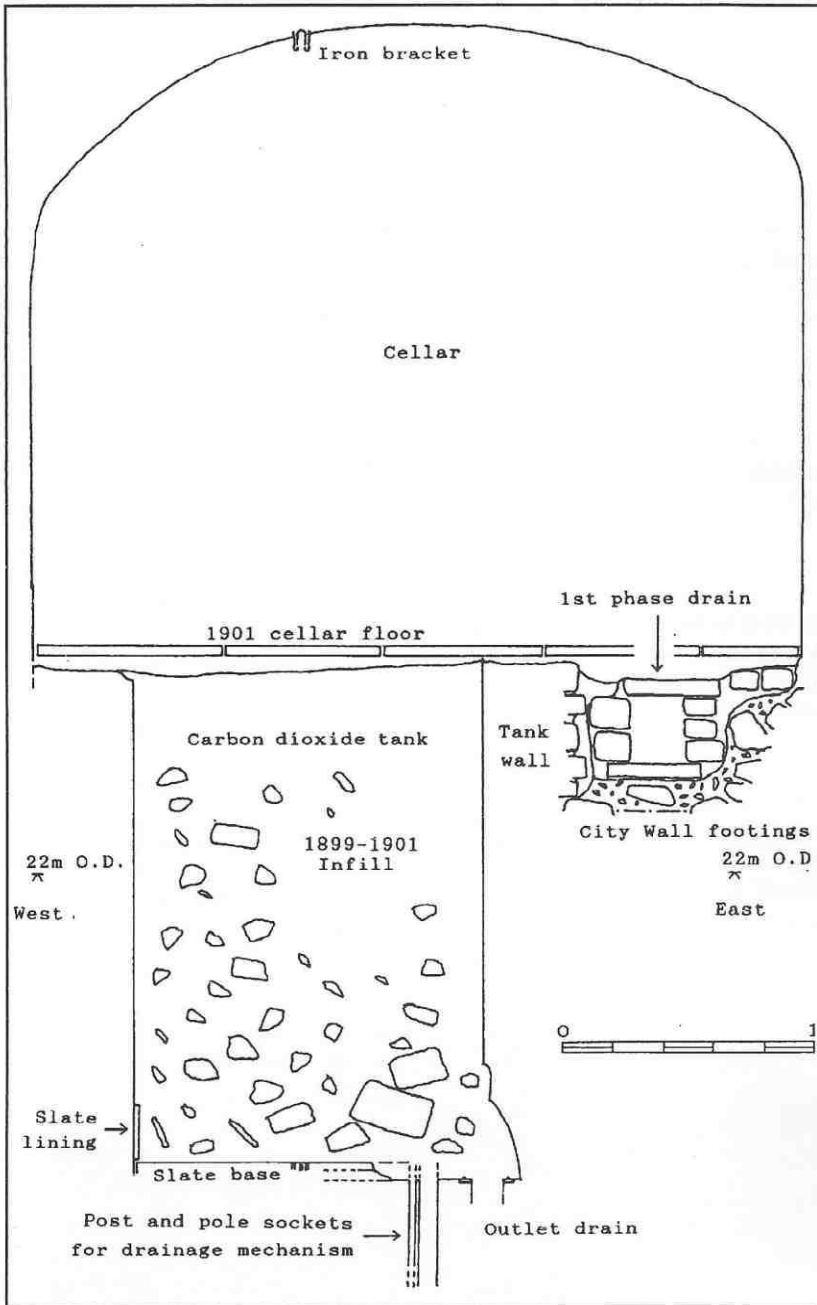


Fig. 5 Detailed section through carbon dioxide tank

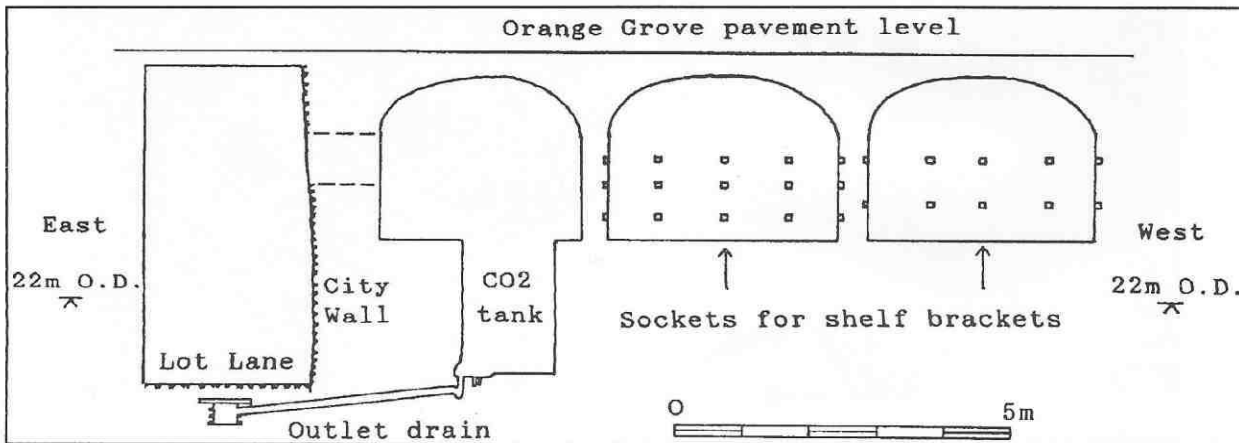


Fig. 6 Looking south into cellars showing carbon dioxide tank and discharge into Lot Lane, and storage vaults with racking sockets

The two cellars to the west of that containing the carbon dioxide tank were not excavated, being under no threat from the current development. It cannot be ascertained whether or not the phase one and two carbon dioxide tanks might have been sited in one of these two vaults rather than in the one containing the known one. Though under no threat, the standing walls have been recorded and photographed nonetheless. A series of horizontal sets of sockets in the walls suggest that these particular vaults served as storage for bottles for wooden shelves both prior to and after their filling (Fig. 6). The demolition of the factory is described in a lamentable report in the Bath Chronicle of 16 November 1899, which states that: '*the great building which contained Messrs. Hunter and Clarke's aerated water manufactory is being razed to the ground*'. At present, its carbon dioxide tank has been backfilled and thus preserved.

The Empire Hotel itself merits a brief mention in respect of the contribution it made to the hotel industry in the city. Upon its conception, and it was a life-long ambition of its architect the former city surveyor Major Davis, the hotel was intended as one of the highest class, with breathtaking views across the city and surrounding countryside. This it achieved and was accompanied soon after opening by the long-awaited road link between Pulteney Bridge and Orange Grove in the form of Grand Parade, with its own view over the River Avon and the Institution Gardens (now Parade Gardens).

On the day of its opening, 28 November 1901, the Empire Hotel was described as '*A Palace of Luxury*'. The

hotel could accommodate 200 guests on its five floors, linked by a magnificent staircase, and its rooms were elegantly and luxuriously furnished. Even the toilets were considered worthy of description: '*The lavatorial contrivances are the best that sanitary science can suggest*'. The hotel's management, Spiers and Pond, ensured the greatest comfort for its guests, who were catered for by staff of quality. Former staff of the hotel in both its glory days and the days of the Admiralty's occupation have been tracked down and interviewed in advance of a publication on the history of the hotel.³ Despite its critics, the hotel survives as a fine example of late Victorian architecture, of which there is precious little surviving in Bath and certainly not on this scale.

Acknowledgments

Thanks are due to Andy Rochester who excavated the trench in the carbon dioxide tank cellar, and whose detailed recording of both the tank and the other features made this article possible. Also, to the site contractors, Alfred McAipine, for working both alongside and around us in this critical area of the excavations as a whole.

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Mixing tank for the production of carbon dioxide gas