

*The article below was published in the "Philips Group Magazine" No. 51, November 1951 (Price 3d). It was written by a staff member at the Balham factory, though his role there is unknown.*

## BALHAM STORY

by  
H. E. Filer



The story of the Balham factory is a complete story of the development and growth of the radio industry in Great Britain. It commenced with the transference of the M.R.V. Co. in 1922 from a small building in Hammersmith to what had been during the First World War the Vauxhall Glass Co. When the Mullard Radio Valve Co. took possession, the site comprised what is now the office or house section plus two small bays now housing Dept. 92 and the Main Stores. These bays contained large kilns and furnaces used in the manufacture of glass. Under and in front of these furnaces were underground chambers used in the Second World War as air raid shelters.

Our first job on arrival was to dismantle the old glass machinery and demolish the kilns. Incidentally, each of these kilns contained 16,000 fire bricks of various shapes and sizes, some of which were used as paths, one of which is still in existence on the west side of the factory. At the rear of the factory was a complete orchard of pear trees, in full fruit when we arrived!

After approximately three months work the necessary services were installed to enable the manufacture of the famous O.R.A. and R valves. These with the Silica Valves were the main products. This was the day of the bright emitter valve, and of course there was no public broadcast at this time. All valves at this time were manufactured by hand and exhausted by liquid air, bottle pump and box pump with

overhead shafting. Our first water circulating system was supplied from a 100 gallon tank on the roof and returned by a small Pulsometer pump outside the building. The Weco or peanut valve was then introduced in time for the Wembley Exhibition. This required extra factory space and the white glazed brick building which is now the machine shop was built linking the house with the factory. About this time the mass produced method of manufacture was introduced and a great deal of modern machinery had to be installed. Long hours were worked to hasten this, as there began to be a great demand for the P.M. valve. This was the period when the trend was to buy a kit of parts and make your own sets, notably the Mullard Master Three and Three Star.

As the popularity of the P.M. valve grew, so more factory space was required. A start was made on the rear orchard down to the back of the houses in Temperly Road. About 100 trees had to be uprooted and mounds of earth had to be cleared, after which a modern two storey building was erected and installed with new units which comprised the foot machine pumps, capping and testing units complete.

Up to this time the one and only entry to the factory was by the main gate in Nightingale Lane. A cottage in Temperly Road was purchased and the ground floor cut away to provide an exit. What is now the Maintenance shop was laid out as a garage with an open yard for washing down, etc. At this time we had the

well known valve shaped vans, which made a very conspicuous show on the roads. Also the demonstration van relaying records over a panel containing 35 speakers.

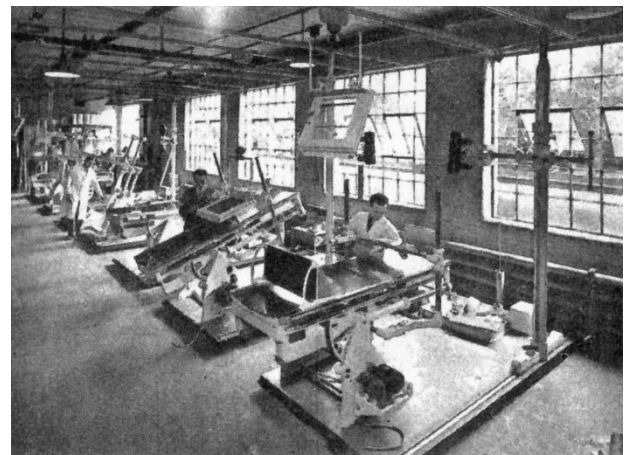
With the extension of the factory, our cooling water problems increased. A 400 ft. artesian well was sunk at the rear which fed a 6,000 gallon storage tank on the roof, this in turn gravity feeding our many types of Mercury Vapour pumps. In 1927 the Mullard and Philips Transport sections were merged into the London Carriers and moved to Kennington. All available space now being exhausted at Balham, new premises were found at Hackbridge which is now Mitcham Works. The plant and machinery were gradually moved from Balham to Hackbridge and by 1935 Balham had ceased to exist as a valve factory, the Silica Dept. being the last to leave. Practically all the Mullard personnel was transferred to the new factory.

The old garage space was then used for welding rod manufacture, under the direction of Mr. Wood, having at that time one oven, later to be increased to four with the necessary plant. The remainder of the factory was used as storage space for radio sets made at Hackbridge, at one time being completely covered from floor to ceiling. In 1938 the Radio Transmission Equipment Co. took over the front office and factory, having moved from Mitcham Works. X-ray Service were installed at the rear of the factory. Parts of the factory were used to store unused but serviceable plant assembled from the various factories of the Group.

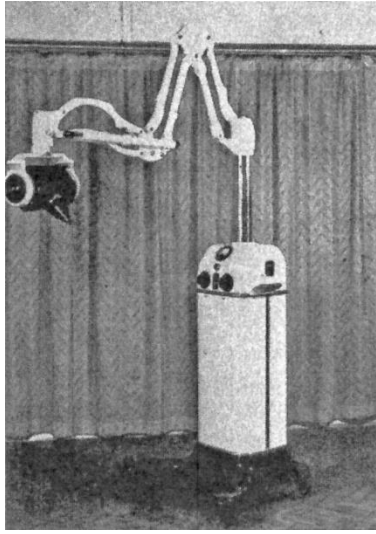
As the war period approached, R.T.E. required more space and eventually took over the whole of the factory. One of the earliest jobs was to build several pumping units for Silica valves, which were installed at Portsmouth Signal School for the Admiralty by the staff at Balham. X-ray development was then commenced at Balham, on the outbreak of war being moved to the Beechholme Garage a few doors away. Transmitting apparatus of all types was manufactured, day and night shifts being worked. A modern canteen was installed in the old technical department with facilities for

providing meals for approximately 250 persons. It was opened in January 1941 and on the Friday of the opening week was damaged by a bomb dropped from a German hit-and-run plane. This occurring at a quarter to one, the canteen was full to capacity, but the bomb dropped on the roof of the adjoining room which at that time was the Drawing and Planning Office. Several casualties occurred, one person being killed and several injured. During the war several "incidents" took place near the factory, but this was the only actual hit. During the war Balham had its own Company of the Home Guard. At the end of hostilities the whole factory was used for X-ray equipment manufacture and is still being used for this purpose, up to the present time.

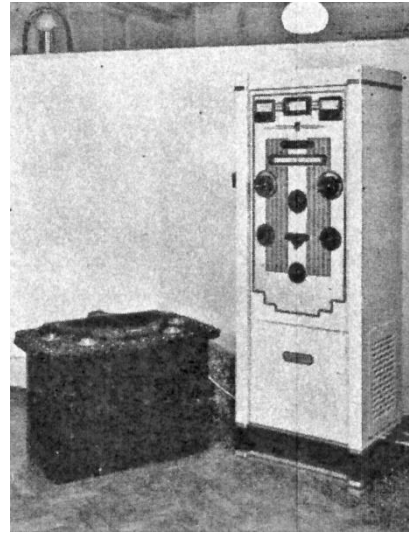
During all these changes, the factory has taken an uninterrupted interest in sport, and our football team has won numerous trophies over the years. The first home ground of the club was an open field, with an old shed for dressing, at Southfields, which is now the home of the Wimbledon Lawn Tennis Championships. We have been members of the Clapham and District League, the Balham and District League, London Business Houses League and the West End Senior League. One of our members was C. Vaughan of Charlton Athletic. The writer held the position of Hon. Secretary of the Football Section for a period of 15 years, on retirement being presented with an engraved clock which still graces his mantelpiece.



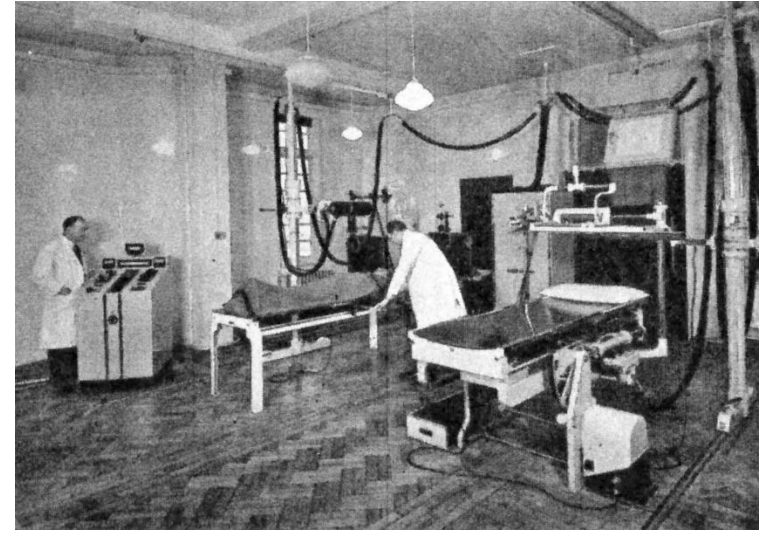
*Department 71 at Balham at work on motor driven couches.*



*Dental X-ray unit, pedestal model.*



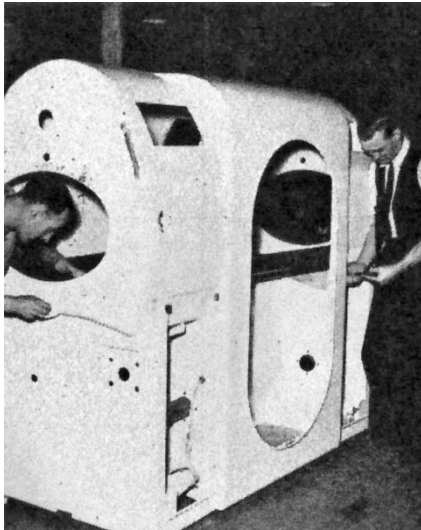
*A popular medical X-ray unit, the DX3.*



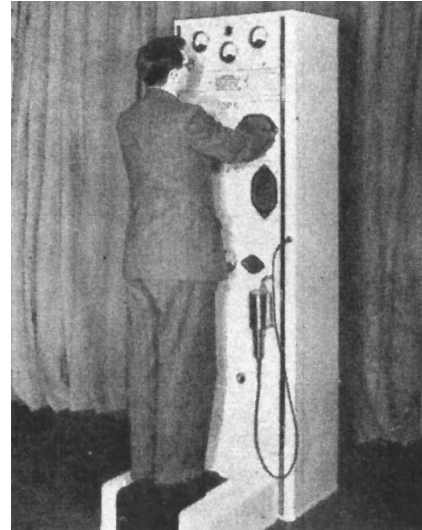
*The diagnostic X-ray Department of Lewisham Hospital, showing a DX4 generator, a motor driven couch and a bucky couch – all Balham products.*

## SOME TYPICAL BALHAM PRODUCTS

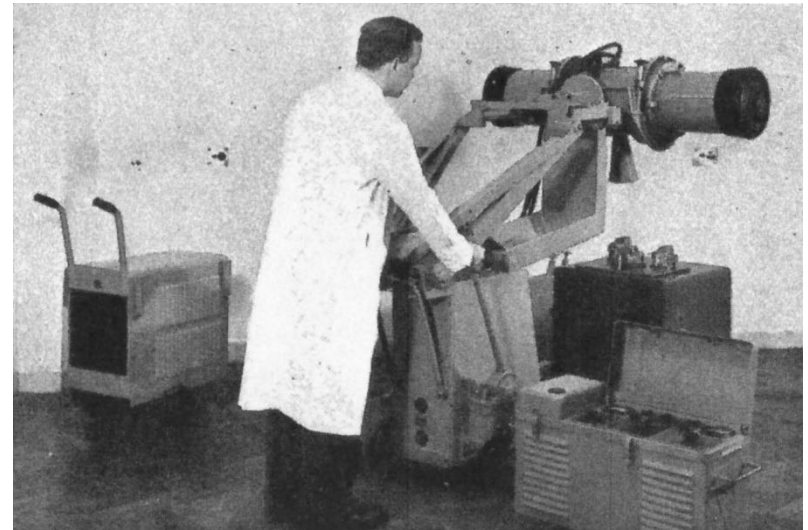
*An "iron lung" in course of construction. These machines are used to save the lives of victims of acute infantile paralysis. As far as we know, the one in our picture, which is one of a batch of 25, is the first to be built in this country.*



*A hand and foot monitor. This machine is used to protect workers in atomic laboratories from dangerous radiations. It indicates at once the presence of radioactive particles on skin or clothing.*



*Compactix 200 industrial X-ray unit. This machine is used for examining castings, welds, etc., in order to detect imperfections which could otherwise only be detected by destructive tests. It is much more mobile than most instruments of this kind and is already finding many applications in outdoor work such as shipbuilding.*





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## Some Members of

1. Mr. J. Barlow, Foreman, Machine Shop.
2. Miss M. Lamb, Secretary, Works Manager.
3. Mr. E. Sabin, Toolmaker and Shop Steward.
4. Mr. F. Green, Superintendent, Assembly Dept.
5. Miss R. Jones, Purchasing Department.
6. Mrs. E. Chapman, Canteen Manageress.
7. Mr. W. Warder, Foreman, Paint Shop.
8. Mr. A. Birth, Superintendent, Assembly Dept.
9. Mr. H. Wilde, Chief Estimator.
10. Mr. G. Jackson, X-ray Test Department.
11. Mrs. D. Hibbin, Goods Inwards Inspection.
12. Mr. H. Doe, Chief Methods Engineer.



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## the Balham Team

13. Mr. L. Holdstock, Administration Department.
14. Mr. W. Meech, Progress Department.
15. Mr. W. Cruickshank, Mechanical Designer.
16. Miss J. Freeman, Secretary, Brixton Management.
17. Mr. R. E. Stephens, Designer, X-ray Lab.
18. Mr. H. Berkovi, Chief Time Study Dept.
19. Mr. J. Cosier, Head Industrial Eng. Section, Brixton.
20. Mr. J. Kirkham, Foreman, Fitting Shop.
21. Mr. C. Duffield, Chief Mechanical Inspector.
22. Mr. F. W. Zelle, Supt., Frame Shop.
23. Mr. A. Phillips, Supt., High Frequency and Welding Equip., Brixton.
24. Mrs. C. Lee, Personnel Department.



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