

## 50 YEARS OF TUBE REPAIRING IN BUENOS AIRES

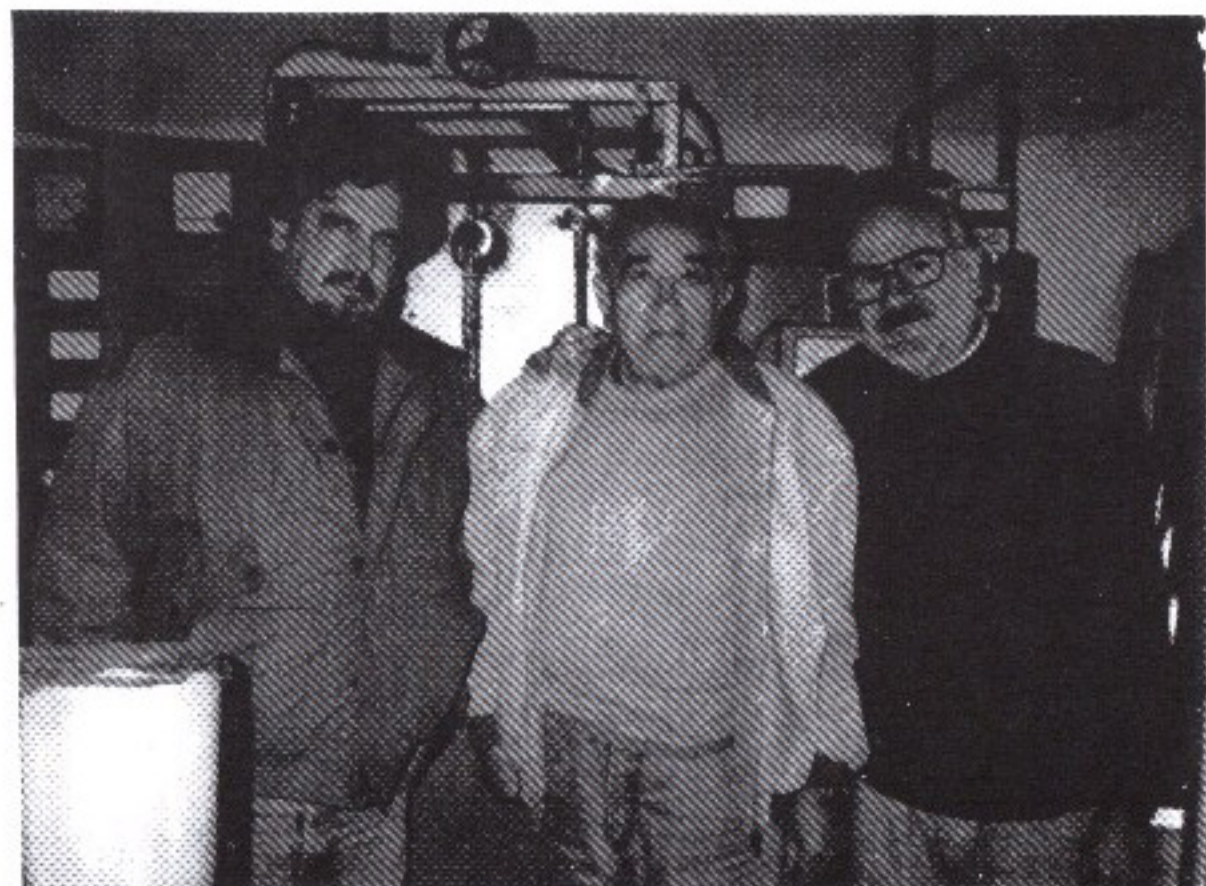
Abel Santoro, LU8DXI

The leading figure in this story is Mr. José Schiaffo, an electronic technician, born in Italy on February 3, 1923. At the age of five he arrived in Argentina with his parents, to be situated here in Buenos Aires.

His first contact with electron tubes was in 1945, at the age of 22, while helping his

and was put to work as a filament and grid assembler on high-power triodes.

At the end of 1946 Mr. Bard was scheduled to return to the United States to work for the U. S. government\*. At this point Mr. Schiaffo left the factory, to join another, newly formed private company for tube repairing. Named López & Windus,



Left to right: Santoro, Schiaffo, and Martin in the little garage.

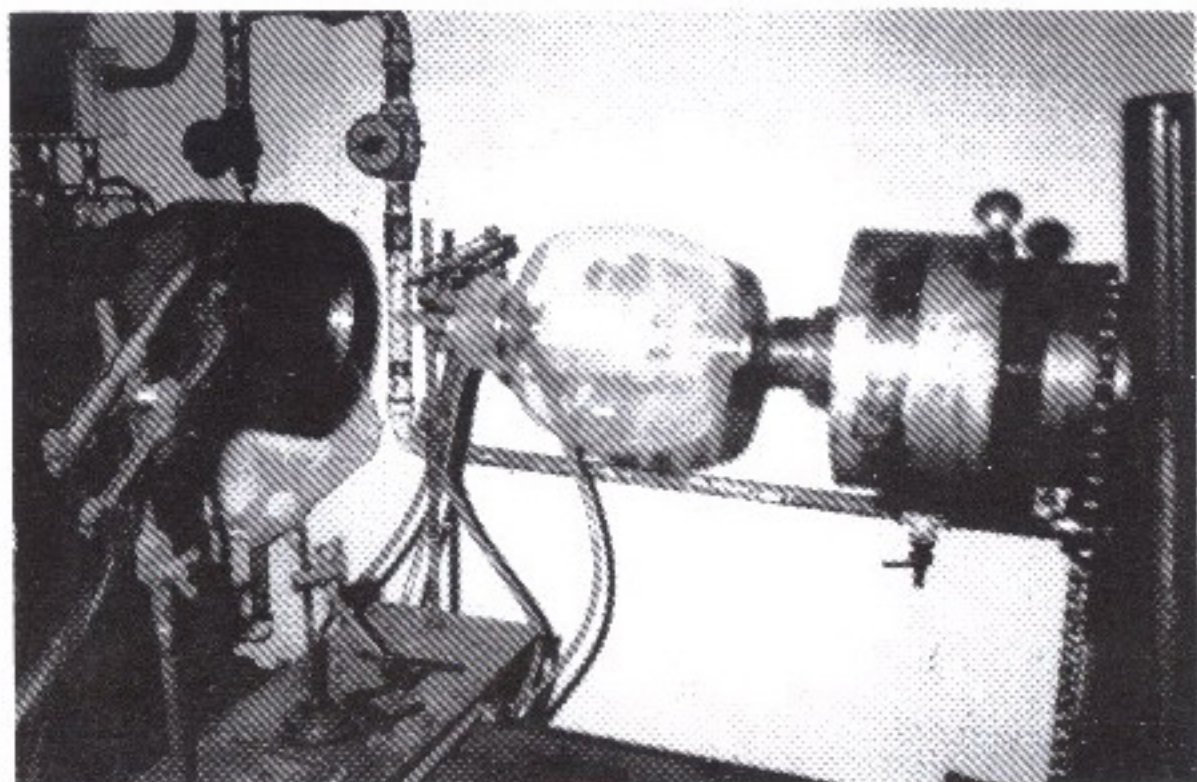
father. The latter was working on an oxygen, air, and water installation for the laboratory of a new tube factory named PRODINAR (a contraction of *Producción Argentina*), on Honduras St. in Buenos Aires. This factory was intended to make (and repair) power triode tubes for broadcasting, high-tension rectifiers, and X-ray tubes.

The factory was under the management of the American engineer Elliott Bard, who seeing worthy performance from young José in his work, proposed that he join the new factory. He accepted the job,

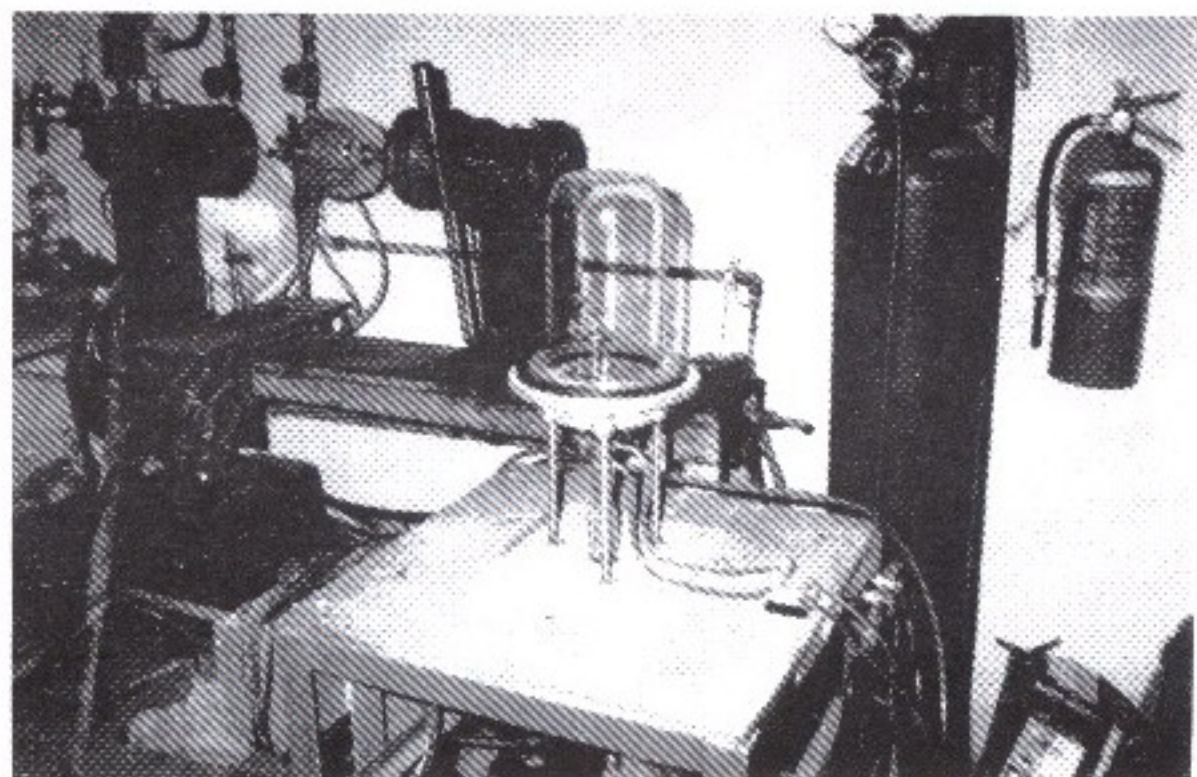
it was situated at the intersection of Costa Rica and Humboldt Sts. in Buenos Aires city. This company was formed by the expert glass technician Mr. Salvador López and the investor Mr. Enrique Windus. They were looking for an expert electron-tube assembler, at which Mr. Schiaffo was invited to join the new company with a

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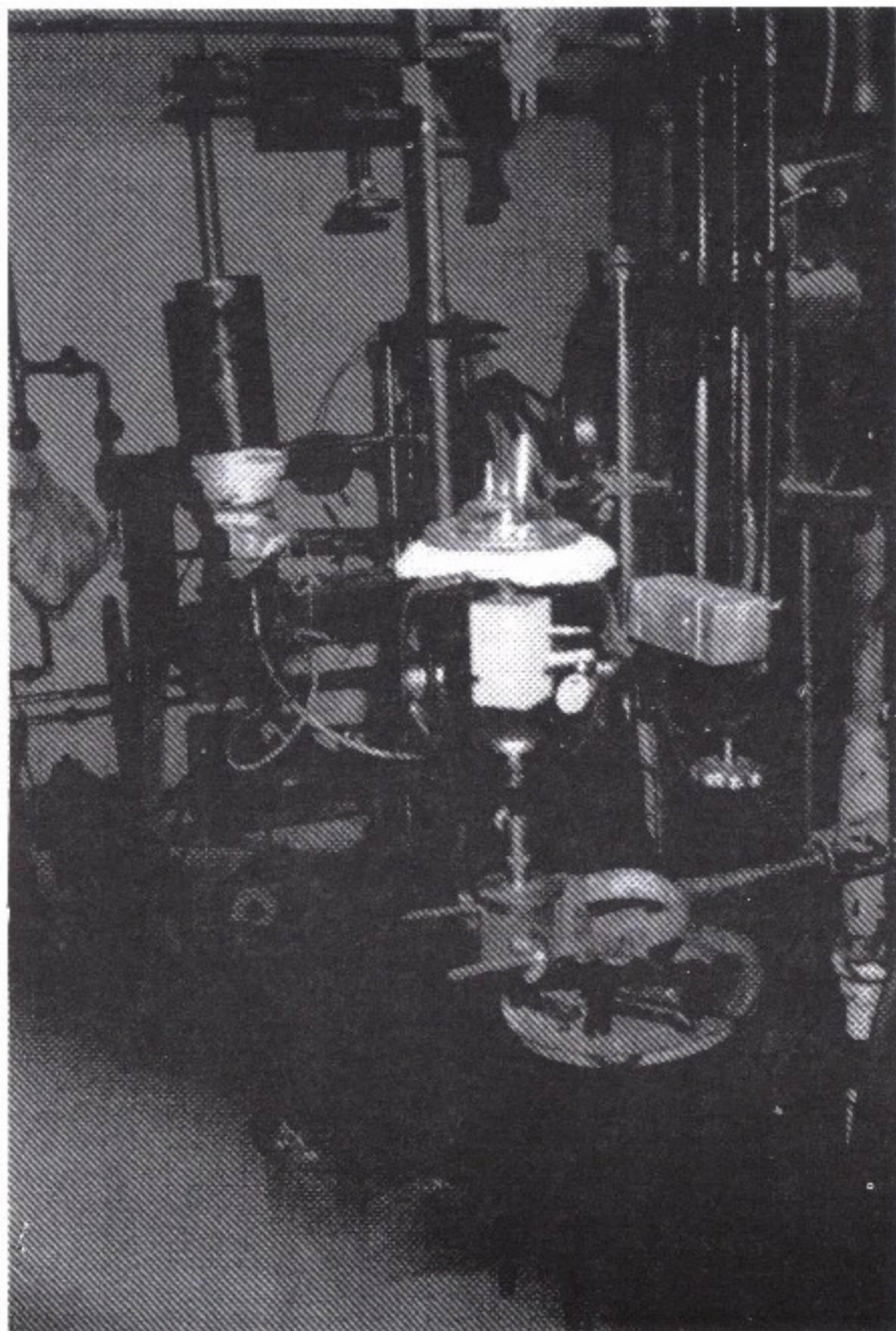
\* Bard seems to have had an intercontinental career. The 1946 IRE directory shows him as working for equipment maker Barker & Williamson in Upper Darby, PA; then, in 1949, back in Argentina as chief engineer of Radio Belgrano. - Ed.



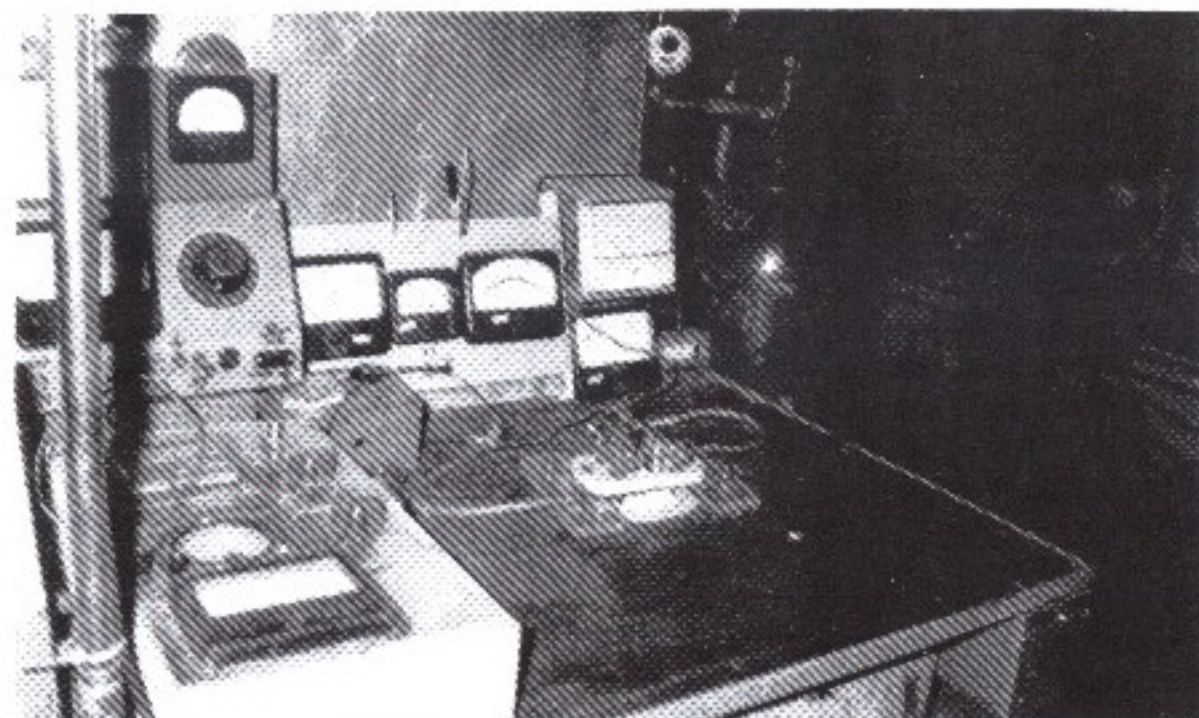
A TB5/2500 tube on the glass lathe.



The carburizing bench, for thoriated-tungsten filaments.



A TB5/2500 tube in the vertical solder-glass machine. (The Philips-originated TB5/2500 is equivalent to the Amperex 7092.)



The final-test table, in which cathode and secondary emission, anode and grid dissipation and insulation are measured.

high salary. He began there repairing high-power tubes for the local broadcasting stations Radio Mitre (50 kW) and Radio Belgrano (100 kW). Mr. Schiaffo learned here the techniques of glass sealing and a lot of "trade secrets" on tube manufacture and repair. In a short time he reached the level of quality-control manager. He worked here some ten years and finally left work at this company in 1955, when he saw the possibility of going to assemble a tube-repair laboratory in the Republic of Chile. Mr. Schiaffo went to Chile in 1956 to have an interview with the president of the Chilean Broadcasting Association, Mr. Ricardo Vivado, who was strongly interested in establishing a laboratory for rebuilding power tubes for broadcasting in Chile. Then Mr. Schiaffo returned to Buenos Aires to look for his wife Sara and small daughters Alicia and Patricia. The family took a trip to Chile in the summer of 1957.

Six months later the laboratory was completed, with two independent high-vacuum equipment setups - one for tungsten-filament tubes alone, the other for thoriated tungsten - RI' heating equipment, furnaces for degassing parts, etc. Mr. Schiaffo worked here until 1960,

when, with his family not really accustomed to living in Chile, decided to return to Buenos Aires. On returning, he encountered a friend, the aeronautical engineer Mr. Alfredo Davins, who made him a proposal to assemble a tube-repair laboratory, first in Mexico, later in Cuba, but Mr. Schiaffo turned down those proposals, deciding to work again in Buenos Aires, repairing electron tubes. He contacted Mr. Benigno Novoa and Mr. Roberto Villani, owners of the tube-importing company "Importadora Electrónica" (presently located at 949 Salta St. in Buenos Aires city), with which he associated. He soon built a complete new laboratory in which he undertook repair of all types of glass-envelope high-power tubes. He worked here some thirty years, to 1991, when left this association. He then built a last laboratory in a little garage of his friend, the electronic technician Mr. Lucio Martin, in Vicente López, Buenos Aires. Nowadays, Schiaffo (at age 80) and Martin (at 67), spend their spare time repairing electron tubes in the little garage.

#### ACKNOWLEDGEMENTS

To Mr. José Schiaffo; Mr. Lucio Martin; and Importadora Electrónica, Buenos Aires.