

CHAPTER 14. PATENTS

326. We asked the BVA members and other manufacturers of valves and tubes for information about their patent holding and patent licences. The bigger manufacturers own hundreds of patents some, they say, of minor importance and a few of considerable importance. Most of the manufacturers both give non-exclusive licences under their patents and hold non-exclusive licences from others. A few hold licences from the Admiralty and from the National Research Development Corporation. There appears to be a relatively free interchange of patents on valves and tubes, not only among manufacturers in this country but between manufacturers in this country and those overseas, particularly in the U.S.A. Many of the patent agreements involve cross-licensing. Many of them are made by the parent companies of the valve and tube manufacturers, for example, N. V. Philips of Eindhoven, A.E.I., E.M.I. and Pye Ltd.

327. There are no formal pooling arrangements but the BVA has stated:

"From the inception of the BVA there has been an understanding between members that they would not contest the use of each other's Patents and in fact membership of the BVA implies free use between members of each other's Patents on valves and tubes coming within the scope. As a result of this members have felt quite free to apply to themselves developments in design originated by other members."

328. There is, however, a patent pool known as the Broadcast Licensing Pool, which is concerned with the circuits used in radio and television sets and therefore involves valve and tube applications. Some of the manufacturers and others with whom we have been concerned in this inquiry are either members of this pool or subsidiaries of companies which belong to it. The membership is as follows:

B.T.H. (a fellow subsidiary with Edison Swan of A.E.I.);

Cinema-Television;

E.M.I. (the parent company of Marconiphone and Electronic Tubes);

G.E.C. (also the parent company of M.O. Valve);

Marconi (a fellow subsidiary with E.E. Valve of English Electric Co. Ltd.);

Philips (a fellow subsidiary with Mullard of N. V. Philips);

Pye Ltd. (the parent company of Cathodeon);

Standard;

Murphy Radio Ltd. (a set maker but not a valve or tube manufacturer).

Accordingly, Cossor and Ferranti are the only BVA members, and Hivac, Ericsson and 20th Century are the only other valve and tube manufacturers who are not associated with members of this pool.

329. This pool, which has been in existence for over twenty years, with membership varying at different times, has had an influence on the types of valves made and the BVA says:

"In the United Kingdom, policy dictated by the Equipment Manufacturers demanded valves having the highest possible gain per stage so as to employ the minimum number. This was because during the period 1933-38 Patents on circuit technique called for a royalty assessed for convenience at 2s. 6d. per valve-holder e.g. 12s. 6d. for the average five valve receiver. There was, therefore, constant pressure on Valve Manufacturers in this country to make valves with progressively higher gain or multiple valves contained in one envelope, in order to reduce the receiver circuit royalty payable. In 1938 the Patentees consented to royalty being paid on a percentage of the cost of the receivers. This removed the requirement to reduce the number of valve-holders to the minimum."

330. We are assured that licences are issued to any bona fide manufacturers of equipment designed to incorporate valves or tubes and that virtually all the set makers are included in the arrangements either as licensees or as licensors. The licences specifically exclude patents relating to the valves and tubes themselves. The following clause of the licence prevents the licensee from selling in the United Kingdom and in the Irish Republic:

any Broadcast Sound or Television receiver which incorporates imported components to an extent per receiver greater in value than ten per cent. of the retail list price thereof.

We are told that this ten per cent. clause has been a feature of the licences for many years but has never caused difficulties.

331. Licences are issued for five-year periods and the royalties and the shares of royalties to the members are settled for the five-year periods. The royalties payable on the net turnover of all the television sets made by the licensee are on a sliding scale depending on output—the rate of royalty falling as the output rises. Royalties are payable at a flat rate on the net turnover of all the radio sets made by the licensee.

332. In their evidence certain set makers have criticised the patent pool and its mode of operation. One said that the pool, while a useful source of income for the holders of the patents, gave no service whatever to the licensees. He said that under a similar pooling arrangement in the U.S.A. the patent owners gave technical advice. As against this, however, the Pool commented that under their arrangements the licensees get, for a rate of royalty fixed for five years, the benefit of future research and development.

CHAPTER 15. STANDARDISATION, RESEARCH AND DEVELOPMENT

333. Since 1936 there has been no technical control by the BVA over the types of valves which the members may make, although members are required to submit new types to the Association for technical classification and pricing before offering them for sale. Further, in connection with the new arrangements about imports, precautions have been taken against a member importing a new type without giving adequate notice to the Association.

334. Although there is a wide measure of standardisation of certain basic features of valve design, valves and tubes made by one member may or may not be interchangeable with valves and tubes, of the same type and with the same function, made by another member. The make of valve which is chosen by the equipment maker for a particular function in the circuit is determined by the range of voltages to which the valve will have to respond, and how closely the actual performance of the valve corresponds to the technical details in its published data. User and distributor witnesses are in general critical of the large number of types now made, which is thought to add both to the costs of manufacture and to the costs of distribution and stockholding by distributors. The BVA told us that new types are seldom introduced except to meet the needs of an equipment maker, and only where distinct advantages over existing types can be seen.

335. In general, smaller equipment makers appear to rely entirely on the valve and tube manufacturers for information on development of new types.