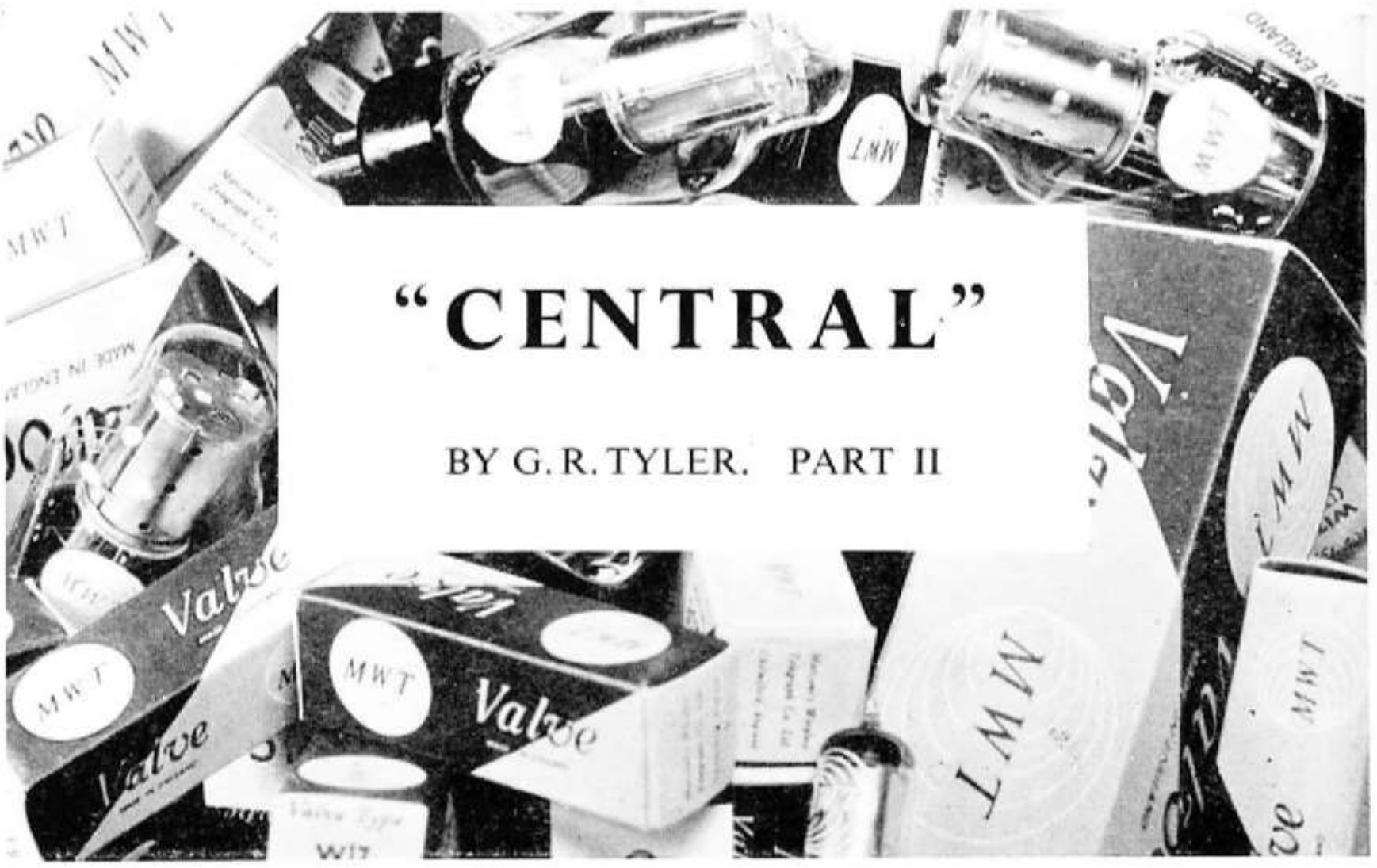


"CENTRAL"

BY G. R. TYLER. PART II

NOW WIRELESS MASTS are things that are brought to your attention a good deal in one way and another; they're not structures you can very easily overlook. But how many people, we sometimes wonder, in and about New Street realise that they're a particular concern of Central. Superficially the work of this or that Division may appear to be more "glamorous" but in our opinion all the Company's varied activities have nothing to show more adventurous than the building and maintenance of masts, and nothing certainly that calls for a steadier nerve. Perch yourself in your mind's eye a few hundred feet up on a slim swaying "pencil" of lattice steel—working away up there day after day with nothing but a safety-belt between you and eternity—in sun, rain, hail, sleet, snow, wind, hell and high water . . . ! There's a small and very experienced band of riggers permanently attached to Central for this work. They'll go anywhere, any time, and tackle anything. They're tough and coolheaded; they need to be.

Sheer height and exposure, moreover, are not the only hardships or risks they have to face. In 1950 we were busy on one of our more spectacular recent jobs, the £45,000 Tebrau masts at Singapore. Life in Malaya these days is, as you know, apt to be colourful.

"P.S.", the engineer-in-charge, wrote in one daily report. "As reported in day-sheet (1 July) an incident occurred on Friday when about thirteen shots were fired—none in retaliation by police. (One Police did childish action.) Three shots passed through our office hutments. What of danger money?"

Lately, we have been busy erecting a tower on a bleak rocky islet called Quoins up in the Persian Gulf, and we have a 430-footer to put up on what is more or less of a quicksand in the Sudan for the new Marconi 45 kW broadcasting transmitter to be installed near Omdurman. We have recently finished running up a couple of masts for the B.B.C. to carry TV relays of the Coronation to people in poor-reception areas —one at Glencairn Road, Belfast, in

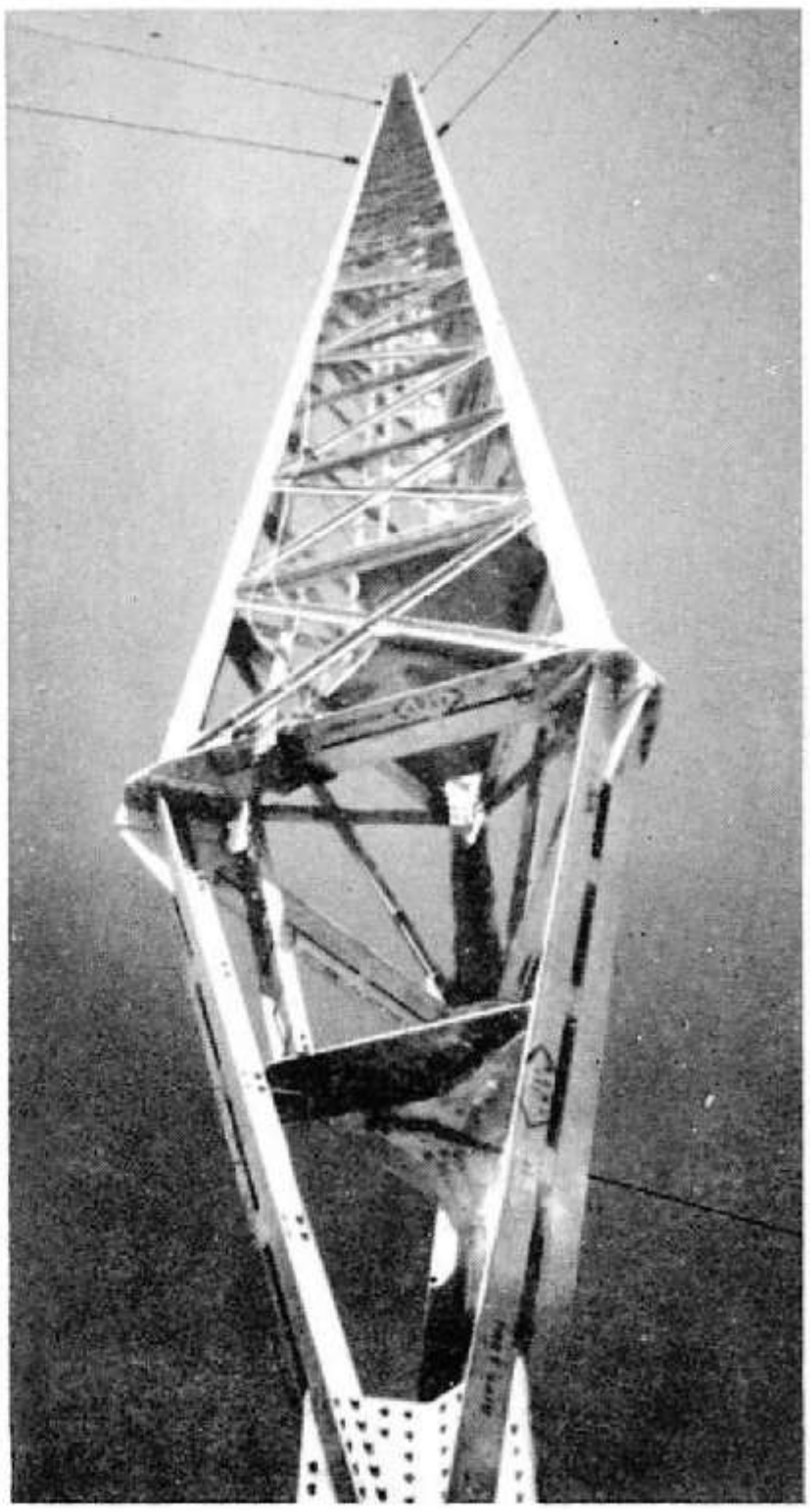
Northern Ireland, and the other at Pontop Pike in Durham about a dozen miles from Newcastle. The latter offers an interesting addition to our collection of "tricky" sites (such as the Sudanese "quicksand"). Pontop Pike is a hill over 1600 feet high, but it is riddled like an antheap with abandoned colliery galleries; so much so that it has already subsided, we gather,—like a tired *soufflé* —the best part of thirty feet. There's no access road to it whatever. All the gear and materials have to be lugged and humped across country. As long as it doesn't collapse further and engulf us, we shan't grumble.

The Company has always been prepared to undertake the maintenance of masts they or their associates have built. *Now we in Central look after most of the B.B.C.'s masts—and that is our "P.B." (Proud boast) No.* 4. A recent press statement paid tribute to "those men largely unknown and taken for granted who preform hazardous work in order to provide public pleasure".

Another of our jobs is to provide a most important service to other Product Divisions through the Installation Drawing Office.

What does this mean in fact?

You read "I was There" in this magazine. Where it's an erection job or jobs being described, have you ever wondered about the background to that intrepid engineer? Do you suppose he just drifts off to Omsk, Irkutsk, Ballybunnion, Trichinopoly, Split, Medicine Hat or Nijni Novgorod and lightheartedly sticks up a wireless station with trimmings as it occurs to him? Of course you don't. But that's where the I.D.O. comes in. It comes in, in fact, long before he contemplates drifting anywhere. In the first place, when the Company sends in its tender for any major project anywhere on the globe detailed designs and plans have to be prepared of the finished job. That means tackling radio, electrical, mechanical and architectural



One of the masts erected for the broadcast transmitting station at Abu Zaabel in Egypt. Below, local Arab labourers laying concrete foundations to support the mast stays

problems. It's a job for I.D.O., which is the reason why this division is father, mother, nurse and best friend to every client of the firm who needs advice on the best way of installing and laying out any kind of radio equipment.

Take it back a step. Before the stage of tendering is even reached, the I.D.O. is often called on—usually at short notice—to put up site and installation plans and diagrams. To make the offer complete, drawings and estimates have to be got from sub-contractors for such equipment—not made by M.W.T.—as engine generators, power supply transformers, and distribution switch-gear.

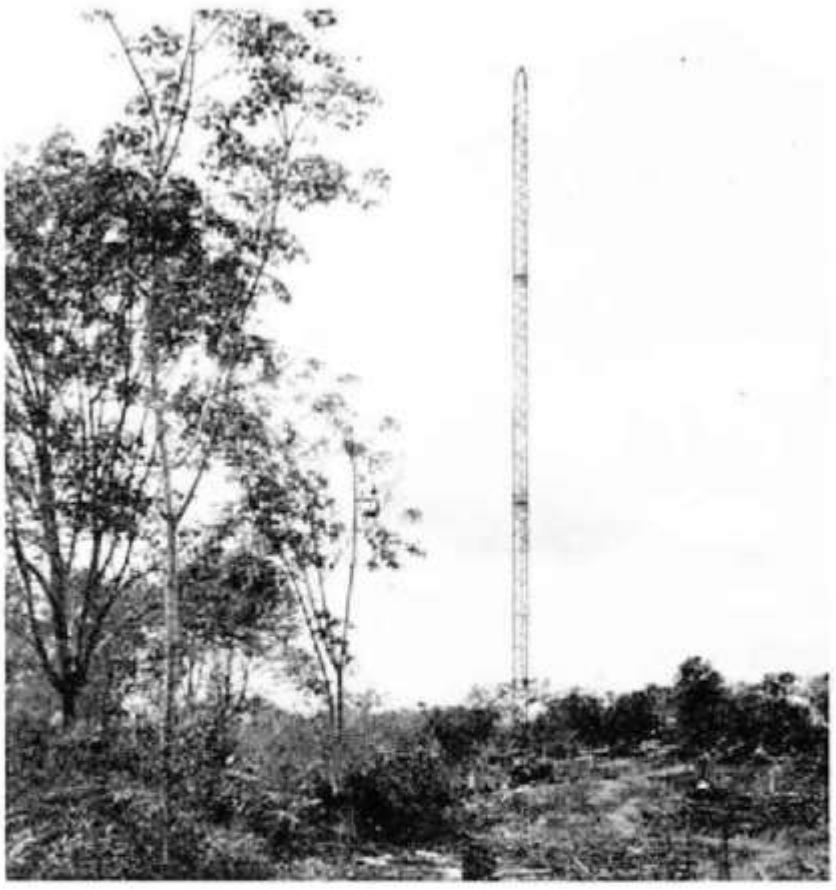
The Company gets the contract. What next? This is where the I.D.O. gets its head together with the client's to choose the best site, plan the buildings, lay on power and water supplies and signalling lines and so forth. The I.D.O. may put up a site plan and a building plan. Once the final building plan is prepared—either by the client's or the Company's architect—then more plans must be made in detail of accommodation, foundations for radio equipment, generating plant, cooling systems with complete schedules of pipework, cables, and all the multiplicity of materials.

Lastly, installation and other diagrams must be made to guide the technical staff responsible for installing the equipment and making it work. . . .

"Lastly", did we say? The I.D.O.'s job is never done. It keeps records of every Marconi-equipped station in the world. Often a client wants to modernise or extend a station. The I.D.O. is there to suggest the best way of doing it. It's all just a part of the Central Silent Service. . . .

Central "does" valves. Everybody knows that; but how many people, we often wonder, have more than a ghost of a notion of what that means. Taken by and large it's probably the most arduous of Central's activities.

In the first place it means seeing that valves and related "items" such as magnetrons, klystrons, image orthicon tubes, stabilovolts, and so on are on tap to meet the entire day-to-day needs of the Company. If you chew on that one, you will realise that it calls not merely for accurate stock recording—which, heaven knows, is a complicated business enough—but for an intimate knowledge of the Company's actual and potential business; because we must order and stock for future as well as present needs. Stocks-in-hand to meet current demands alone include all the



Surveying, clearing, track laying, recruiting labour—a great deal of work went in before the actual building of the transmitting station at Singapore. The surveying engineer is George Gray, son of the late Andrew Gray. In the right hand picture the nearly completed mast rises out of what has been thick bush

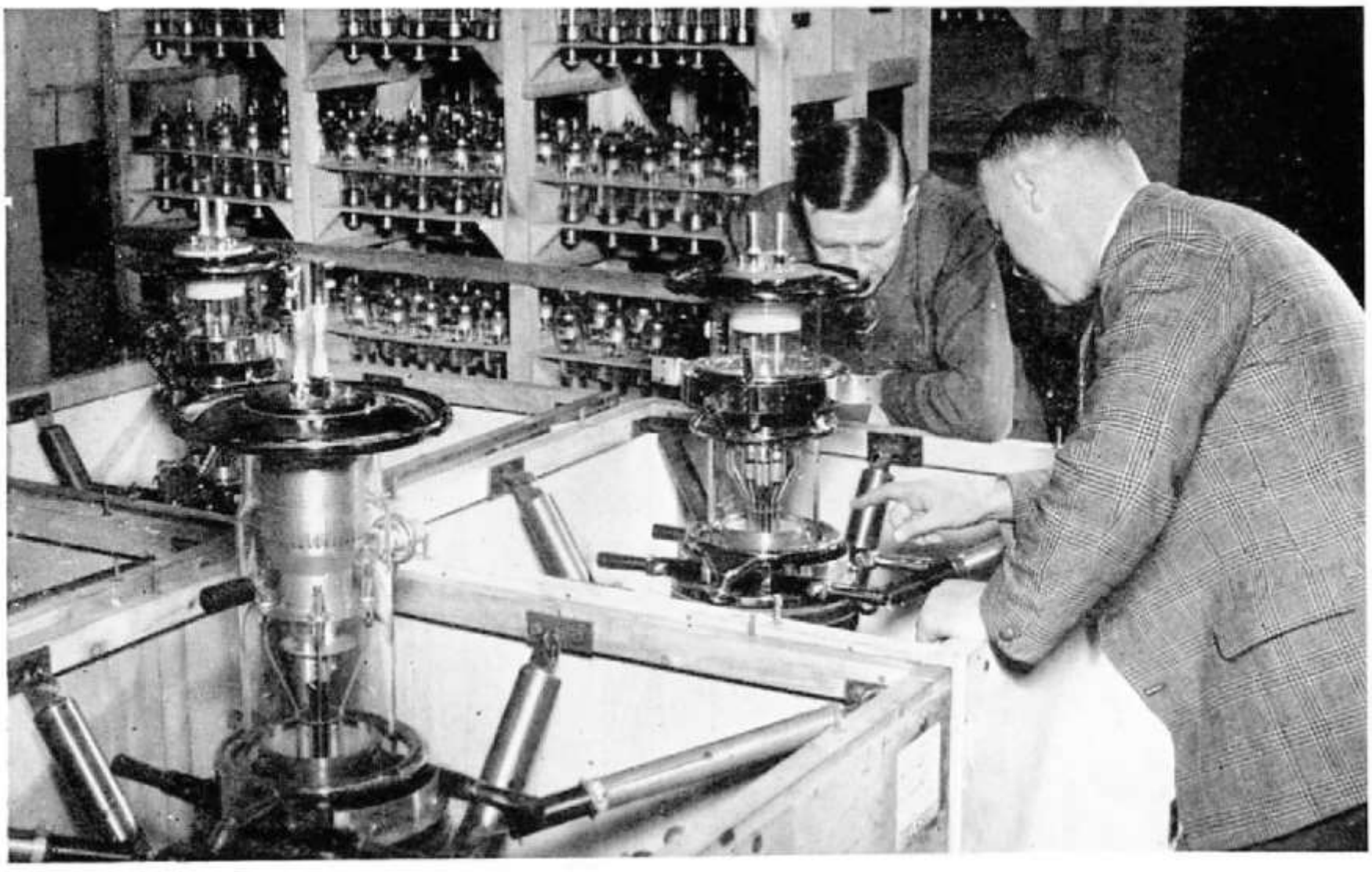
Valves for the B.B.C. Types CAT 14 *and* 17 *going through Valve Test. Discussing the CAT* 17 *are N. W. Jenkins, Valve Section, and J. P. Baker, Valve Test*

time no less than 1000 different types of valve. Just to make things difficult, too, the design of valves themselves is constantly changing. If we overstock a type of valve which becomes obsolete, it tends to get left on our hands. At the same time we have to stock outmoded types of valve for the benefit of customers whose Marconi-made transmitters (unfortunately for us) will not wear out.

And now, touching wood and speaking with a becoming modesty we will make "P.B." No. 5.

Never has equipment yet been held up for lack of valves. (Nor will it be except over our dead bodies.)

We buy valves. Day by day we have to be in touch with the factories which make Marconi valves to discuss our needs, to check on their delivery programmes, prod them, if necessary, and argue, of course, about prices—life guarantees—credits for defective valves. Not all makers take kindly to any difference of opinion. "Robber" is the term of abuse sometimes hurled at our representative from one quarter, "Twister", one capable of "stealing the trousers off honour-



able manufacturer". We grin and bear it. It's all in the day's work, after all.

Then—and this is very interesting—we hire out big transmitter valves and image orthicon tubes—to certain broadcasting organisations—by the hour. Reports are sent to us once a quarter on how many hours the valves or tubes have done and we charge on these figures. The whole of this remarkable business is based, of course, on a very exact and exhaustive knowledge of valve "behaviour", gleaned from the engineers' reports regularly sent in over a great many years. And it has a most interesting corollary. *Because of our exact knowledge we are able to offer clients far longer guarantees of service than the makers are prepared to do themselves.*

That definitely qualifies as "P.B." No. 6.

And then we *sell* valves—*half a million pounds-worth last year*—to clients all over the world—not only as replacements in Marconi equipment but to friends and "foes", even, for purposes which have nothing to do with M.W.T.

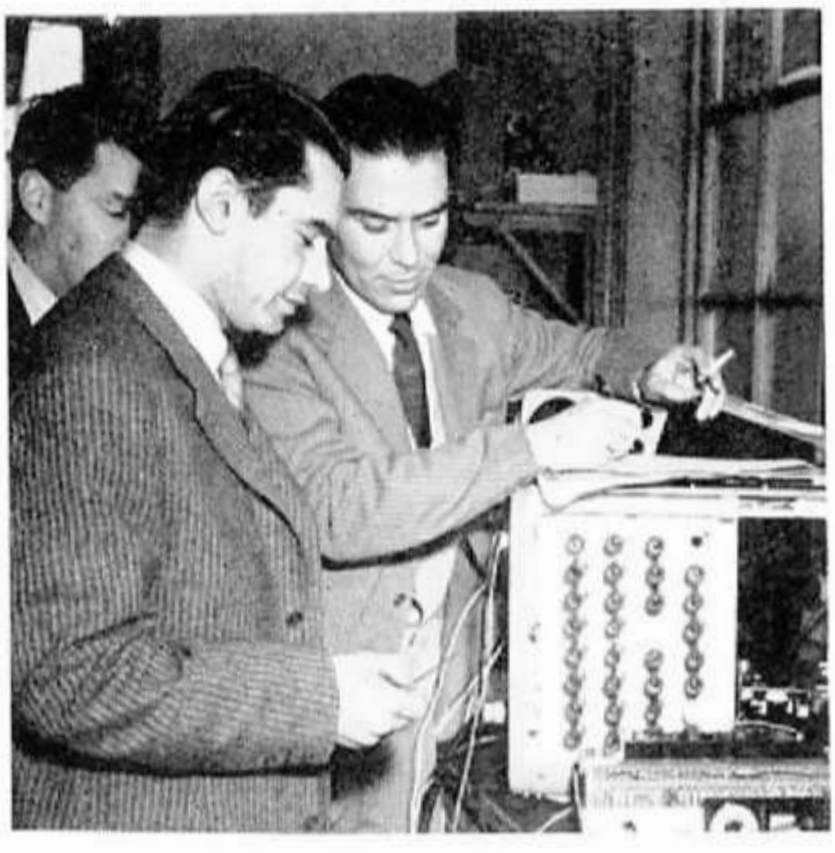
The sale—to outside consumers—of the crystals produced by Hackbridge is another of our responsibilities. Most of the plant's crystals are absorbed in M.W.T.'s domestic needs, but it's our job to find markets for the surplus, and at the same time to see that demands on Hackbridge are tailored to its capacity.

Finally, there are those "odds and ends". Well, those who refer to us as the "Odds and Ends" or "Bits and Pieces" Division may like to know that we shall shortly be retailing Marconite in two-gallon drums. Business is looking up. "We'll handle anything we can make a handling charge on"!

There are no names, you may observe, in this article. We are canny as well as modest violets by habit and temperament. The Commercial Manager is on record for observing that "Quiet efficiency is the watchword of the Division". That might pass as "P.B." No. 7.

From Italy

H. Della Volta and G. Bertolotto of Marconi Italiana making notes on a television picture waveform monitor for Milan. Both have been at Chelmsford familiarising themselves with the equipment for Italy



From Istanbul

Aerial, *our new sales magazine distributed to Marconi agents overseas, is the subject of conversation between D. Smee, Assistant Commercial Manager (left) and Mr. Barkey of G. and A. Baker Ltd., our agents in Turkey*