### Tips and Jottings

NEVER throw away an old valve holder, coil holder, or similar piece of apparatus, without stripping it of nuts, terminals, etc., which may come in handy in the future.

TF a high negative grid-bias voltage is suddenly removed from the grid of a power valve the sudden increase of anode current cannot fail to affect adversely the emission.

A PRE-DETECTOR volume control is desirable on a set employing powerful radio-frequency amplification if it is used near a high-power station. Otherwise detector overloading may fake place.

ONE of the commonest cases of "mysterious" faults is faulty contact due to a defective or broken flex lead.

ONE of the greatest foes to good reception is metal dust, so be sure to keep the newly-built set free from this while filing terminals, etc.

AS pentode valves are much more easily overloaded than ordinary power valves, they should, as a rule, be used with sets with one stage of lowfrequency amplification only.

(NE of the simplest ways of preserving the life of your powervalve is to remember that never under any circumstances should the grid bias plugs be readjusted unless the set is switched off first.

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R.R. 2.

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intended for the Arabs, are to be interrupted frequently in future so that medical bulletins can be transmitted giving instructions for the combating of malaria.

N October 1 there were 3.241,725 licensed radio listeners in Germany to compare with 2,843,569 on the same date of 1929. The postman collects a licence fee of two marks monthly (about two shillings) from each home equipped with a radio receiver.

WIRELESS classes for policemen are the latest innovation in Prague. The classes have been formed to enable every officer to work the police radio apparatus which is to be adopted throughout Czecho-Slovakia for the suppression of crime. The students are given practical lessons with an up-todate transmitter and receiver.

A PPARENTLY the man who buys a wireless licence in India is assured of lasting fame. The "Indian Radio Times" "acknowledges with pleasure the receipt of Rs. 10 as a donation from W. G. A. Bourne, Esquire, of Jamnagar, Nawanagar State, towards his Licence Fee," and expresses the hope that other listeners will follow his example

IN France commercial and tourist aeroplanes are being fitted with radio receivers, enabling passengers to listen to concerts during their voyage. The inauguration took place recently on the Paris-Berlin route, when passengers on two aeroplanes were able to don headphones and enjoy a concert en route.

"IT may be hard for some to conceieve of New York being second to Europe in anything," stated Mr. Weir, Director of Radio for the Canadian National Railways, recently. "Nevertheless in the production of radio drama and in educational broadcasting, America is undoubtedly in second place. Pro duction methods for radio dramas in Great Britain are definitely ahead of those in America."

THE "curfew" law in many French towns, forbidding the use of loud speakers after 10 p.m., has recently been described as illegal, but the councillors of Bourg (Aisne) have parried with the interesting discovery of a curious local Order of 1885. This forbids citizens after seven in the evening to "practise on trumpets, horns, cor-

THE transmissions from Radio Al- nets, drums, and similar instruments," giers, especially those programmes and the councillors consider that wire-less falls under the same ban, "inasmuch as it reproduces all the offending instruments!"

> TO be operated on by a "ri \_... is a privilege in store for American hospital patients. At the Surgical Congress, Mr. H. C. At the Atlanta of Chicago, recently explained that the radio knife may be used in any type of surgery, with bloodlessness and quick healing as its chief advantages. Technical details are not available, but Mr. Lowry, we read, stated that the patient "serves as the antenna of the set and the vacuum tube locates the radio frequencies generated over the desired area."

THE Soviet Government is showing legitimate pride in the huge increases in the number of sian listeners. In a new state ment by the Commissariat of Commerce, the figure is given as 2,764,000, and it is believed that (the four-million mark will be reached by the end of next year, when the "45-station plan" is completed. Listeners, on their part, are not altogether satisfied with the existing programmes and have had the temerity to form a "Club of the Friends of Radio" with the idea of bringing about an improvement.

THE recent opening of the first highpowered Swiss station at Sottens brings to mind the growth of radio in Switzerland. The first transmissions were made in 1923 at Lausanne, Geneva, and in 1924 the Radio Telegraphic Society of Zurich took up regular transmissions. Then in 1925 and 1926 the stations at Berne and Basle were crecied. Three years after the first attempts at broadcasting were made there were 51,000 licensed receivers, and this had increased to 101,000 at the end of 1930. This means a proportion of 25 receivers to every 1000 inhabitants, a wonderful number when one considers the mountainous country, so unpropitious for low-powered transmitters. At the commencement of broadcasting most of the listeners were to be found in, or in the vicinity of, towns where good reception of the local station was possible, but now listeners are widespread owing to the great increase in the number of larger and more powerful sets.

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