Index to Back Numbers.

BELOW is the promised index to the construction page during the time from the commencement of the "Record" to the last issue. A number of readers have asked for such an index to be published, and it will no doubt be of great assistance to many.

Articles are all listed by the dates on which they appeared, as dates are easy to find, being printed on every page, whilst the serial number is only on the front page. Some of the dates between July and September are duplicated, but they are all 1927 unless '28 appears in parenthesis after the date.

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- Filament Fuses, June 15.
- Heating Last Filament with A.C. June 29.
- "Condor" Characteristics. Aug. 1 ('28).

Tips and Jottings

Variable Condenser Capacities.

IT is impossible to apply any rule of counting plates to give the capacity of any variable condenser, as the spacing between plates is a governing factor—reduced spacing gives increased capacity. There is, however, a standard spacing that is used at the present time in most factory-made condensers, so that the following total number of plates will give a fair indication of the capacity:—About 23 plates, .0005; 17 plates, .00035; 11 plates, .00025; 5 plates, .0001. These figures refer to the Hammarlund and other makes of condensers.

X-ray Valves.

IT is not perhaps very generally known that Philips Lamps, Ltd., do a large business in X-ray valves in addition to the rapidly-growing volume of radio products. Business in the latter especially is increasing by leaps and bounds, necessitating two extensive increases in office and warehouse accommodation at the Wellington house during the past few months. A low-powered experimental short-wave station is to be erected in Wellington in order to conduct the tests in co-operation with headquarters at the other side of the globe.

Speaker Cut Out by Telephone.

WHERE the loud-speaker and telephone are situated together it is necessary to stop the speaker whilst the telephone is being used. As the telephone instrument may not be tampered with in any way, this cut-out may not be made automatic, but the next best thing is to break one of the speaker leads, run an extension wire from each side of the break up to the telephone, where a small switch is inserted between the two leads and screwed to the wall. Anybody using the 'phone can then conveniently switch off during the conversation loud-speakers in other rooms continuing without interruption.

Built-in Loud Speakers.

IT is quite an easy matter to build a loud-speaker into a cabinet below the receiver, and it has often been done quite successfully as regards reception. But it is a wise precaution to first know the capabilities of the receiver with regard to microphonic susceptibility. A receiver fitted with microphonic valves might give endless trouble when built above a loud speaker, and for this reason experiments should be first conducted to determine the suitability of the outfit for such arrangement.

The Double-Roll Speaker.

AN Otago constructor says:—"I have constructed the double-roll speaker and have had it running for a week, and its reproduction of both high and low notes, together with its sensitivity to weak signals, has been a revelation; it is certainly all you claimed for it and more. It easily outclasses both of the horn speakers I have here. It was made exactly to your specifications, purchasing the proper cone paper and an omniphone unit.