

January 14

4YZ INVERCARGILL 680 k.c. 441 m.

11. 0 a.m.-1.0 p.m. Sunday morning programme
2. 0 Albert Sandler and his Orchestra, with vocal interludes
2.30 The Three Services
3. 0 **Carnival Ballet Suite** (Schumann), played by the London Philharmonic Orchestra
3.24 Famous artists: Lawrence Tibbett (baritone)
3.30-4.0 Medley time
6.30 Cleanings from far and wide
7. 0 **Relay of evening service from St. Mary's Basilica. Preacher: Father J. Murphy. Choirmaster: A. Mahoney. Organist: Miss R. Shepherd**
8.15 "The Life of Emile Zola"
8.45 "New Zealand's Problems As I See Them": Talk by the Prime Minister, Rt. Hon. M. J. Savage.
9. 0 Reserved
9.30 "John Halifax, Gentleman"
9.45 Slumber session
10. 0 Close down

3ZR GREYMOUTH 940 k.c. 319 m.

12. 0-1.30 p.m. Variety programme
12.30 Reserved
5.30 Sacred song service, conducted by the Salvation Army
6.15 Reserved
6.30 Times of to-day
6.46 **Carson Robison and his Pioneers**
7. 0 Lighter moments with the masters
7.30 Viennese operetta
8. 0 Boston Promenade Orchestra, and Lawrence Tibbett (baritone)
8.30 "The Buccaneers"
8.45 Talk by the Prime Minister, the Rt. Hon. M. J. Savage: "New Zealand's Problems As I See Them"
9. 0 Reserved
9.20 "Khyber" (episode 6)
9.50 Popular orchestras
10. 0 Close down

2YH NAPIER 760 k.c. 395 m.

11. 0 a.m.-1.0 p.m. Selected recordings
2. 0-4.0 Afternoon concert session
6.30 Miscellaneous recordings
7. 0 **Relay of Evening Service from St. Paul's Presbyterian Church, Napier. Preacher: Rev. Stuart Francis. Organist and choirmaster: Arthur Pacey**
8.15 (approx.) Selected recordings, station announcements
8.30 London Symphony Orchestra, "Czardas," "Mazurka" from "Coppelia Ballet" (Dellibes)
8.35 Florence Austral (soprano) and Browning Mummary (tenor), "Home to Our Mountains" (Tro-vatore) (Verdi)
8.39 Strings of the Berlin Philharmonic Orchestra, "Menuetto" and "Rhondo" from "A Little Night Music" (Mozart)
8.45 **Talk by the Rt. Hon. the Prime Minister (re-broadcast from 2YA) "New Zealand's Problems As I see them"**
9. 0 Reserved
9.20 Boston Promenade Orchestra, "Es-pana Rhapsodie" (Chabrier)
9.26 Ural Cossacks' Choir, "Northern Star" (Glinka)
9.40 Mischa Levitzki (piano), "Hungarian Rhapsody" No. 6 (Liszt)
9.50 BBC Symphony Orchestra, "Samson and Delilah" selection (Saint-Saens)
10. 0 Close down

2YN NELSON 920 k.c. 327 m.

7. 0 p.m. Classical music: "The Wasp's" overture, played by the Queen's Hall Orchestra
7.30 "Serenade to Music" (Vaughan Williams), played by the BBC Orchestra, with vocalists

8. 0 Light opera selections
8.30 Concert session: The BBC Symphony Orchestra, "La Scala di Seta" overture (Rossini)
8.45 **Talk by the Rt. Hon. the Prime Minister**
9. 0 "Every Walk of Life, the News-boy" (episode 4)
9.12 Light classical music
9.30 "Pinto Pete"
10. 0 Close down

2YD WELLINGTON 990 k.c. 303 m.

7. 0 p.m. Horace Heidt and his musical Knights
7.35 "Those We Love"
8. 0 Tit-Bits
8.45 "The Nuisance"
9.21 Melodeers
9.30 Humour by request
9.45 Strings
10. 0 Close down

IZM AUCKLAND 1250 k.c. 240 m.

10. 0 a.m. Sacred and orchestral music
11. 0 Concert session
12. 0 Luncheon music
2. 0 p.m. Selections from the shows and musical comedies
3. 0 Piano accordion, piano, light orchestral, and miscellaneous selections
5. 0 Band music, popular medleys
5.30 Announcements
5.40-6.0 Light orchestral session
7. 0 Orchestral numbers
7.30 Concert programme
8.15 Scottish concert
9.15 Selections from the operas
10. 0 Close down



JOSEPH CRAWFORD, the Hamilton baritone, who was heard in a lieder recital from the Exhibition Studio on Monday evening, January 8

CAN THE SNOW-CRUISER CRUISE?

Latest Experiment In Antarctic Travel

The author of this article examines the possibilities of the U.S. Antarctic Expedition's huge snow cruiser in the light of practical experience driving service cars, buses, tractors, and snow ploughs, in heavy snow conditions in the high country of the South Island of New Zealand.

The snow cruiser to go South with Byrd is 55 feet long and cost £30,000 to build. It carries a crew, an aeroplane, a photographic darkroom, a machine shop, and can travel at 10 m.p.h. with a top speed of 25. On its first run it: got jammed under a bridge; broke down twice; tried to go in four different directions until the speeds of the four separate engines were adjusted; bumped into a lorry; and ended in a ditch, from which it had to be dragged. With it to the Antarctic will go Army tanks and caterpillar tractors; which will be useful, the author of this article suggests, for pulling the cruiser out of crevasses and snow drifts, as it had to be pulled out of the ditch. "Time" said: "If Byrd got off on an expedition without something going wrong he might regard it as an ill omen. Enough mishaps befell the snow cruiser to convince him that everything was going to be all right."

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YOU can use rubber for most anything, from insulating a one-amp lamp to taking the shock of a 50,000 horse-power marine engine, but rubber and snow just don't work together.

No doubt these scientists of the U.S. Antarctic expedition know what they are doing, but those who have had experience of snow driving in New Zealand think their snow cruiser is just one big experiment, with a very large question mark written all over it.

The size of the tyres will give it tremendous traction, amplified by the fact that each wheel can be driven separately by the Diesel charged electric motors. At low pressure, a rubber tyre with a contact of two or three square feet will grip wonderfully well in seemingly impossible conditions. It will hold in mud, if it is driven carefully, with no rush of power to set up spin. In New Zealand dual-drive six-wheel trucks have been pulling out of logging swamps for several years now. They will also pull in snow, without chains; that is, in about six or eight inches of snow. But all the tyres this writer has seen working in bad mud or snow conditions have been heavily treaded.

The lowest pressure tyre seen in use locally has never done the job if the tread's been worn.

Tyres Absolutely Smooth

Now, Dr. Poulter's snow cruiser has tyres which are absolutely smooth. The idea is that treads would get iced up anyway, and that the ice adhering between the ridges would form a less

efficient running or traction surface even than the rubber. So they rely on a large surface contact, with the low pressure, for their grip.

So far as it goes, that theory is a good one. In the conditions, and for a rubber tyred vehicle, it seems all they could do. Actually, a wide tread in a good tyre will not easily ice up. Practice here has shown that the tread will hold good in the worst of wet clogging snow—and temperatures in our country often come close to Antarctic levels.

But the theory has too many limits. It runs in a vicious circle. If rubber won't grip by itself you have to use rubber that's treaded, and if rubber that's treaded gets clogged you have to use rubber that's smooth, and rubber that's smooth has never been proved an efficient tractive material in snow.

All Sorts of Tricks

Perhaps there are ten or twenty car drivers in New Zealand who really know how to handle varying snow conditions; probably fewer. Most of the really bad hill roads here are closed during the winter. The few remaining open are covered by a handful of experts.

They find that snow will play all sorts of tricks on their buses. In wet snow one bus will be good, but useless in dry (cold) snow; and vice versa. The balance of a bus on its driving axles has a lot to do with it.

Old Fashioned Chains

But all this trickery in driving and selecting a bus was only necessary because of the limitations of the rubber tyre. Every big rubber firm has concentrated more or less strenuously on the problem of giving service drivers something they can trust. No service driver has yet found anything he can trust, except the old-fashioned chain, and, that, after all, means that metal is used in place of rubber.

So the Byrd snow cruiser has yet to convince sceptics who have seen the same principle fall down in practice.

One other point: On the Barrier ice and along the glaciers flowing off the Southern Plateau, there are crevasses. If that huge cruiser drops even one wheel into a hole, one quarter of its motive power is gone and the tremendous job of lifting that weight back through possible soft deep snow will fall to three wheels—with smooth rubber tyres.

We wish them luck, but there may be a towing job for the tanks or tractors. They, at least, have not been equipped with smooth tracks.