

- 4.8: Studio items.
 4.30: Close down.
 6.0: Children's session, conducted by Uncle Leo.
 6.55: Relay of church service.
 8.30 (approx.): Relay of Band Concert from Whangarei.
 9.45: Close down.

2YA, WELLINGTON (420 METRES)—SUNDAY, JUNE 30.

- 3 p.m.: Afternoon session—Selected gramophone items.
 4.30: Close down.
 6.0: Children's song service conducted by Uncle George.
 7.0: Relay of service from St. John's Presbyterian Church (Preacher, Rev. J. R. Blanchard, B.A.; Organist and Choirmaster, Mr. C. W. Kerry).
 8.15 (approx.): Relay from His Majesty's Theatre of recital by the Wellington Municipal Tramways Band under the conductorship of Captain T. Herd.
 Close down.

3YA, CHRISTCHURCH (306 METRES)—SUNDAY, JUNE 30.

- 3 p.m.: Relay from Wesley Church, Fitzgerald Avenue, of the Annual Choir Festival. The sacred cantata "The World's Redemption" (Valentine Hemery) will be rendered by the choir. Soloists: Soprano, Mrs. J. Salkeld; contralto, Miss E. Vass; tenor, Mr. Ernest Rogers; bass, Mr. W. J. Spratt. Organist, Mr. A. M. Owen. Musical Director, Mr. J. Chaplin.
 4.30: Close down.
 5.30: Children's song service.
 6.15: Hymn tunes.
 6.30: Relay of service from Wesley Church, Fitzgerald Avenue (Preacher, Rev. W. Greenslade; Organist, Mr. A. M. Owen; Musical Director, Mr. J. Chaplin).
 7.45 (approx.): Studio programme.
 Soprano solo—Mrs. Lucy O'Brien, "Ave Maria" (Cooper).
 7.49: Vocal quartet—Valencia Quartet, "O Gladsome Light" (Sullivan).
 7.53: Piano and orchestra—Ignaz Friedman, "Concerto in A Minor"—Second and Third Movements (Grieg) (Columbia Records 02704-5).
 8.8: Baritone solo—Mr. E. J. Johnson, "The Lord is My Light" (Allitsen).
 8.13: Instrumental—Christchurch Broadcasting Trio, "Allegro Vivace—Trio in D Major" (Beethoven).
 8.23: Contralto solo—Miss Mary Taylor, "A Song of Thanksgiving" (Allitsen).
 8.27: Lecture-Recital—Mr. W. H. Dixon (Professor of Music): A Short Story of Negro Slavery and the Origin of Negro Spiritual Songs.
 8.59: Weather report.
 9.3: Contralto and tenor duet—Valencia Duo, "O, Lovely Peace" (Handel).
 9.7: Soprano solo—Mrs. Lucy O'Brien, "Heart of Gold" (Manney).
 9.11: Tenor solos—Mr. W. Bradshaw, (a) "Be Thou Faithful Unto Death" ("St. Paul"—Mendelssohn), (b) "How Vain is Man" ("Judas Maccabæus"—Handel).
 9.20: Grand organ solo—Arnold Greir, "Agnus Dei" (Bizet) (Zonophone Record 5229).
 9.23: Baritone solo—Mr. E. J. Johnson, "The Praise of God" (Beethoven).
 9.27: Vocal quartet—Valencia Quartet, "Evening's Pastorale" (Shaw).
 9.30: Close down.

4YA, DUNEDIN (463 METRES)—SUNDAY, JUNE 30.

- 3 p.m.: Town Hall chimes.
 3.1: Selected gramophone items.
 4.30: Close down.
 5.30: Children's song service conducted by Big Brother Bill.
 6.30: Relay of service from St. Andrew's Street Church of Christ (Preacher, Pastor W. D. More; Organist, Miss Stokes).
 8.5: Relay from His Majesty's Theatre of concert by the Dunedin Tramways Band.
 9.45: Close down.

A Friction Melting Metal

AN alloy, or rather, an amalgam which melts by mere friction, and without the application of external heat, is a very useful material for the radio experimentalist to possess. Not only is such an amalgam of great service for cementing delicate crystals in their cups, but it is also obvious that there are a hundred and one other uses to which the amalgam may be put, especially by the experimenter.

Mackenzie's Amalgam, for such is the name of the metal, contains three ingredients—lead, bismuth, and mercury. Two separate crucibles are needed for its preparation. In the first of

these is placed a mixture of 2 parts of bismuth and 4 parts of lead.

Making the Amalgam.

THE crucible is then heated over a spirit lamp or gas burner until the contents have just melted. Immediately after this, the molten contents of the crucible are poured into a waiting crucible which contains 1 part of mercury (by weight, of course, and with reference to the weight of the molten mass of bismuth and lead).

The contents of the second crucible are stirred as rapidly as possible. When solidification of the amalgam occurs, the contents of the crucible may be removed by giving the latter article a slight tap. The amalgam will present a silvery grey appearance. It

Our Mail Bag

Will correspondents please practice brevity, as heavy demands are now made on space. All letters must be signed and address given as proof of genuineness; noms de plume for publication are permitted. Address correspondence Editor, "Radio Record," P.O. Box 1032, Wellington.

News from 2YA.

I CONSIDER the news from 2YA practically nil. The real important news is kept back, and we read whole columns of matter which could keep till the daily arrives, and much of which is unsuitable for the air, requiring careful reading, and often rereading. We get also three or four prices from different firms, all prices in complete agreement, and from 1YA we get prices of fat stock from three or four firms, and again practically the same prices. The report of sales of stock at Johnsonville, given by 2YA on Thursday evening should satisfy any ordinary farmer or dealer.

Living 200 miles from Wellington, we do not feel like making a special trip to that city to attend a Radio Society meeting to protest against any ridiculous motion someone may choose to move. 2YA broadcasts football matches about 50 hours in one year, and I presume the great majority of city listeners, and 90 per cent. of country enthusiasts, will have something to say, if these hours are lessened. If the antiquated few who carried the motion would like more jazz and light music let a two hours breakfast session be started. I consider the concluding remark, "For the present, good evening, or good afternoon, everybody" preferable to the "drawing-room" thank you.—D.M.

I HAVE noticed during this last few weeks that the Australian stations have been broadcasting a good programme of old-time music and songs. I would like to suggest that the YA's do the same. I am sure we all appreciate old-time songs. I note in your last "Record" that the Shannon enthusiasts seem to want a special foxtrot programme while they are dining. Personally I think your dinner music session is first-class. The Shannons could get plenty of foxtrots from 2BL or 2FC if they don't like their own stations. On Wednesday, the 12th instant, I tuned in to 3YA just before 3 p.m. to wait for the chimes, and I was surprised to hear a song, "Old Folks at Home," it sounded like a quartet. Was this 3YA?—Satisfied (Westport).

Delay in Presenting "Caractacus."

A CORRESPONDENT in the last issue of the "Radio Record" complained about the delay which occurred when 3YA broadcast "Caractacus." This was a public performance given in the Christchurch Municipal Theatre by the Royal Christchurch Musical Society under its new conductor, Mr. W. E. Dixon. The twenty minutes' delay which ensued before the performance commenced was due to the fact that the ushers required that time to find seating accommodation for an audience which crowded out the theatre.

Altered Programmes.

WHY doesn't the announcer state the reason when it is not possible for an item that is put in the programme to be sung or played.—E. Morris (Dunedin).

[Any one of a thousand small mishaps possible may occur, such as "Boat late, record not arrived," "Mrs. Grundy has had to return to a sick mother." Listeners are not interested and do not seek such trivialities. When of importance some announcement is made.—Ed.]

The Musical Menu.

I WAS very surprised and amused at the reason you advanced to the question, "Why does the Company not give us a few more dance numbers" in the dinner session. I suppose the Company's next move will be to reduce the dinner session to half an hour so that we will not linger over our tea and be tempted to eat too much, because the "medical fraternity" say it is very harmful to eat to excess. We had the set going to-night, Wellington's popular night, mind you, and endured it till somebody started to sing a piece of grand uproar (opera), then at the earnest request of everyone at the table I went to the set and switched it off. Please give us a few snappy jazz numbers, but for heaven's sake let them be popular ones. I do not know who has been drawing up the programmes lately, but he seems to have as much idea of what is popular as the conductor of a symphony orchestra. Can you tell me why the

will be soft—almost plastic—to the touch. And the act of rubbing it along a stone, metal or other surface, will cause it to melt, or at the very least, to become as plastic as freshly-made putty.

Necessary Precautions.

THERE are a few practical details which must be carefully observed if success is to be attained in the preparation of Mackenzie's Amalgam. First of all, the proportions of metal (all of them are by weight) must be strictly adhered to. Again, in heating up the mixture of lead and bismuth, too high a temperature should not be reached, otherwise the bismuth would oxidise, and thus its proportional quantity in the metallic mixture would be reduced.

Further, before pouring the molten metals into the mercury, stir the contents with a small clean wooden stick, in order to ensure perfect mixing of the metals.

And finally, before you attempt to fuse the metallic ingredients, be sure to see that their surfaces are perfectly clean, otherwise the final product will be contaminated with all kinds of impurities, and very unsatisfactory results will be obtained from it.

Care must be taken when handling the mercury, as it has a great affinity for metals, and if it comes into contact with metal the mercury will quickly amalgamate with the former, and will spoil it for future use if it happens to be a valuable piece of cutlery or other household article.