It appears reasonable to suppose that most benefit will be derived from a vaccine which is as little altered as possible, either by heat or chemical agents. Such a vaccine can be prepared by ether extraction, and I have seen some success with this kind of vaccine. I make no extravagant claims for the method, since in my experience all vaccines yield disappointing, as well as good, results in apparently similar cases; but it seems to satisfy two of the fundamental requirements of vaccine therapy—the administration of large non-toxic doses and unaltered bacterial protein.

I am aware that this is in opposition to some recent American work, in which specific fats are said to be the agents in the production of immunity, but this work needs corroboration before it can be accepted.—I am, etc.,

A. H. PRIESTLEY,

Assistant Bacteriologist, University Public
Health Laboratory, Birmingham.

May 29th.

AORTIC MURMUR.

SIR,—In your issue of May 13th (p. 759) Dr. Thomas Lindsay describes an aortic murmur which he first remarked in 1910. I noticed the condition at Shahjahanpur, India, in 1908, and published several cases, discussing the causation, and importance of recognizing the murmur, in the *Lancet* of March 6th, 1909, and also in the *R.A.M.C. Journal* of January, 1909; I described it as "postural."

The position which produced the murmur when standing up (namely, raising the arms) failed to produce it when the patient was lying down. I discussed the condition with Dr. J. Edward Squire, and in a postscript to a letter he sent me, dated December, 1908, he said: "Curiously enough, I put this letter aside to see a patient, and he furnished an example of your murmur. He was a healthy man of 28; the murmur was unaltered by respiration."—I am, etc.,

E. L. MOSS,

Major R.A.M.C.

Louise Margaret Hospital,
Aldershot, May 15th.

MACHINE FOR CRUSHING GERMS.

SIR,—I gather from their paper (BRITISH MEDICAL JOURNAL, May 20th, p. 796) that Drs. David and Robert Thomson are unaware that several machines have been devised for disintegrating bacterial cells. The makers of tuberculin have long employed a ball-mill, which, however, takes a considerable time to act.

The late Sydney Rowland constructed two forms, one of which was extensively employed by the late Allan Macfadyen and also used, I believe, by Messrs. Burroughs, Wellcome and Co. In this form the material is frozen and the frozen mass is very efficiently ground. Then there is a ball-mill devised by Mr. J. E. Barnard, of which I have had considerable experience. Within half to one hour a large proportion of the bacterial cells are completely disintegrated—certainly 75 per cent. Both these machines (descriptions of which have been published) disintegrate the bacterial cells without any addition of chemicals, and I have used them for preparing endotoxins of typhoid, cholera, plague, diphtheria, and other organisms. Some of these endotoxins have been used for treatment and prophylaxis, and the results have been recorded by me in various papers.—I am, etc.,

R. TANNER HEWLETT.

Bacteriological Department, King's College,
University of London, May 29th.

TUBERCULOUS DISEASES DIPLOMA (WALES).

SIR,—With reference to the notice of the Tuberculous Diseases Diploma (Wales), which appeared under the heading "Universities and Colleges," in your issue of February 25th, 1922 (p. 333), the following amendments in the Regulations for this Diploma, since recommended by the Faculty of Medicine, have now been adopted by the University authorities:

1. That the following words be added at the end of Category B, subsection (a)—namely:

"Or alternatively a Certificate of one year's post-graduate work as a whole-time member of the staff of a recognized tuberculosis hospital, sanatorium, or dispensary, signed by the representative of the authorities for whom the work was performed, or by the administrative medical officer concerned."

2. That the following words be added at the end of Category B, subsection (d)—namely:

"Or by the representative of the authority or the administrative medical officer under whom the year of whole-time work at tuberculosis has been spent."

I shall be much obliged if you will kindly give publicity to these amendments, as they widen the scope of the examination under Category B.—I am, etc.,

Cardiff, May 29th.

S. L. CUMMINS.

CLAYDEN v. WOOD-HILL.

SIR,—With the approval of the other signatories to the letter of appeal for this Fund which appeared in your issue of December 3rd last—Sir Robert Jones, Sir John Lynn-Thomas, Mr. George Gask, Mr. R. C. Elmslie, and Dr. Wilson Tyson—I am writing to say that it has been decided to close the Fund on June 30th. Will those medical practitioners and societies who have not up to the present subscribed, but who intend to do so, be good enough to forward their contributions to me with as little delay as possible?

I shall be much obliged if you will kindly publish the enclosed list of subscriptions in your next issue.—I am, etc.,

HAMILTON A. BALLANCE,
Honorary Treasurer.

All Saints Green, Norwich,
May 27th.

Ninth List of Subscriptions.

Amount previously acknowledged, £1,428 8s. 10d.

£26 5s.
Medical Practitioners in Croydon, per Mr. Gervase E. Newby, O.B.E.: Mr. Elwell, £2 2s. Drs. Wayte, Cressy, Richards, Genge, Scudamore, Partridge, Hamond, Collyer, Redfern, Adams, Nicholls, Phillips, Poulett Harris, Lewin, Allan, Thompson, Pinkerton, Air, Messrs. Cowell, Collard, Neve, and Newby, £1 1s. each. Dr. Everington (2nd donation), Dr. J. Wayte, 10s. 6d. each.

£21 8s.
Members of the Newcastle-upon-Tyne Division of the British Medical Association, per Dr. E. Farquhar Murray, Hon. Sec.: Mr. H. B. Angus, Mr. J. W. Leech, Dr. S. S. Whillis, £2 2s. each. Dr. A. Parkin, Mr. R. J. Willan, £1 1s. each. Dr. A. Campbell, Dr. L. S. Davison, £1 each. Mr. J. H. Barclay, Drs. C. Barrowman, Mabel Campbell, R. Daggar, James Don, Mr. Hamilton Drummond, Drs. T. C. Grey, George Hall, W. T. Hall, James Hudson, A. Livingston, P. A. Mackay, Neil MacLay, Farquhar Murray, R. W. Nevin, Wells Patterson, Stanley Robson, H. L. Rutter, Andrew Smith, senr., S. Worthington, 10s. 6d. each. Dr. J. A. Sacco, 10s.

£14 3s. 6d.
Members of the North Lanes and South Westmorland Branch of the British Medical Association, per Dr. John Livingston, Hon. Sec.: Mr. A. S. Barling, President of the Branch, Dr. Fawcett, £1 1s. each. Drs. Alexander, Allan, Ashburner, Bayne, Blacklee, Bowman, Boyde, Carson, Cochrane, Collins, Craig, Cross, F. E. Daniel, Elliott, Livingston, Reed, Roberts, Rutherford, Sansom, Somervell, Thompson, Ware, Wilson, 10s. 6d. each.

£12.
Members of the Hartlepool Division of the British Medical Association (Hon. Sec., Dr. J. E. Mitchell), per Dr. Alfred Cox, O.B.E.

£10 10s.
The Torquay Medical Society, per Dr. A. Wightwick, Hon. Sec.

£8 8s.
Members of the City Division of the British Medical Association (Hon. Sec., Dr. H. Cuthbert Dixon), per Dr. Alfred Cox, O.B.E.: Drs. John Adams, James Turtle, W. E. A. Worley, H. C. Dixon, O. E. Evans, J. L. Hamilton, H. L. Hands, V. Feldman, £1 1s. each.

£6 3s.
Members of the East Dulwich Medical Society, per Dr. John Heard, Hon. Sec.: Drs. Langford, Robinson, Lea, Reynolds, Scatliff, Nimmo, Cox, Batten, Morton, and Nield.

£5 5s.
Further contribution from Isle of Ely Division of the British Medical Association (see list published April 29th), per Mr. A. C. S. Waters, Hon. Sec.: Dr. Percy Moxey, March.

£6.
Members of the Consett Division of the British Medical Association, per Dr. J. Charles, Hon. Sec.: Drs. E. G. D. Benson, A. Dewar, R. Parry, W. M. Morrison, J. Charles, Fraser, Mackenzie, Murray, Gemmell, Fox, Cook, W. A. Benson, 10s. each.

£5 5s.
The Honorary Medical Staff of the Wolverhampton and Staffordshire General Hospital, per Mr. W. H. Harper, House Governor.

£5.
Dr. James R. Whitwell (Melton, Suffolk).

£3.
The Bucks Division of the British Medical Association, per Dr. Thomas Perrin, Hon. Sec.

£2 10s.
Further donation from members of the Derby Medical Society, making a total of £24 5s. from this society (see list published on March 25th), per Dr. Charles E. Potter, Hon. Secretary.

£2 9s.
Further contribution from the Reigate Division of the British Medical Association (see list published February 4th), per Dr. T. Anstey-Chave, Hon. Sec.

£2 2s.
Dr. W. E. H. Banks, Falmouth
Dr. A. Graham-Stewart, Margate
Lieut.-Colonel J. W. F. Rait, I.M.S., Radlett
Dr. R. N. Highmoor, Litcham

£1 11s.
North Middlesex Division of the British Medical Association (per Dr. J. R. Richmond Ritchie, Hon. Sec.): Dr. J. D. R. Monro (Muswell Hill), £1 1s.; Dr. H. C. Staunton (Hornsey), 10s.

£1 1s.
Dr. R. W. Merrick, West Kensington
"Anon," Hampstead
"X. Y. Z.," Cambridge
Dr. Samuel A. Lane, Bognor
Dr. E. C. Mackay (per the *Lancet*), St. Leonards-on-Sea

10s.
Further contribution from South-Eastern Counties of Scotland Division of the British Medical Association (see list published April 29th), per Dr. M. J. Oliver, Hon. Sec.: Drs. Menzies and Hiddleston, Selkirk, 5s. each.
Dr. H. S. Hollis, Hove

A BUILDING is to be erected in Winnipeg to be used exclusively by medical practitioners and dentists; it is stated that the rents will be controlled by those who take part in the enterprise and that the building will be erected in a side street to avoid high charges.