

Of course, everybody knows that the practice above alluded to of ending a minor piece with a major chord is by no means uncommon with Bach. For example, in his "Grosse-Passions-Musik," the chorus which follows the duet, "My Saviour Jesus now is taken," ends (according to the English version by Miss Johnston) with the words, "the treach'rous betrayer, the murderous throng." Bach has reiterated them—the first time with a minor chord (E), with G natural, on the word "throng"; the second time with a chord on the same key-note, but with a major third (G sharp) and a pause. The effect is thrilling. Surely there could have been no allowance for drop here. Handel, on the contrary, begins and ends his chorus, "And He shall purify," in the "Messiah," in G minor, although the two succeeding pieces are in D major, with which key the previous piece would have been brought into relationship by the raising of the third.

This is a digression from the subject of your correspondents' letters, which probably never entered the minds of the great masters named.

R. FREEMAN.

London, February 3.

A Lunar Romance.

Is not Mr. Wells right in the description of the effect referred to by the reviewer of his "First Men in the Moon" (p. 218)? The sphere itself, as a whole, is *not* attracted by gravity. The action of gravity has effect only in the line (?) through the open window, and, *quâ* the sphere, would only affect that part which would be directly in a straight line from the moon through the window.

F. C. CONSTABLE.

Wick Court, near Bristol.

IN answer to Mr. Constable, I think we cannot allow that the sphere is not attracted by gravity. I understand it to be a sphere of solid glass, PQ, inside a cavorite covering, RS (Fig. 1).

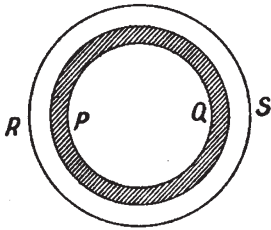


Fig. 1.

In the case considered, the covering is removed through a wide angle AB, thus described (p. 62): "Four windows were open in order that the gravitation of the moon might act upon all the substances in our sphere." Hence the gravitational beam

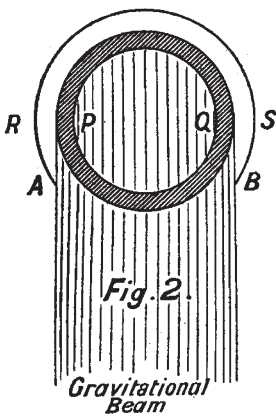


Fig. 2.

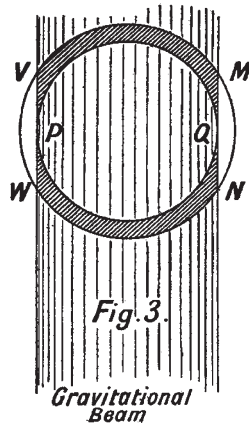


Fig. 3.

reaches the whole of the glass sphere itself (Fig. 2); unless (Fig. 3) Mr. Wells means to reserve little pieces, VW and MN, at the sides outside the beam. In this case the total mass of

the sphere remains the same, but is not all acted on by gravity; so that the acceleration of the whole would be *less* than *g* (in the ratio of mass acted on to total mass), *i.e.* less than that of objects within, which would promptly settle to the "floor."

If Mr. Wells was thinking in this subtle fashion I withdraw my criticism, and Mr. Constable will see that I have left an open door for myself in the review for withdrawal. I may say it was left open expressly in view of this possibility. But the context does not suit this view at all well.

THE REVIEWER.

Cherry Leaf Disease.

THE question raised by Sir W. T. Thiselton-Dyer's letter is a very important one, and I venture to offer a few observations on it.

It is impossible that Mr. Bennett—still more Mr. Carruthers—could have intended to suggest that the experts at Kew and the British Museum are not competent to investigate such diseases as the above when they are submitted to them. They probably meant that an organised system is wanted in every county, by means of which an outbreak of any such disease should be at once brought under their notice. This could only be satisfactorily done by local inspectors, who would be in touch with the farmers on the one hand and the experts on the other. It should be part of their duties to keep accurate records of temperature and rainfall in order to show the connection, if possible, between these and the disease. These officials would naturally be appointed and paid by the County Council.

As regards the outbreak of Gnomonia mentioned by Sir W. T. Thiselton-Dyer, it is a curious fact that in most of the orchards about here affected by it in 1900 the disease has almost disappeared, though no preventive measures such as stripping the leaves were taken. It would, however, be very unfair to blame the advisers of the Royal Agricultural Society for raising a false alarm; in the case of a disease not known to have occurred in this country before, they were clearly bound to act upon the best information they could get—that of Frank—and warn the farmers. The more equable climate of England, as compared with Germany, is probably the cause of the different result, the effects of comparatively small differences of temperature and moisture being vastly more important than is generally believed.

ALFRED O. WALKER.

Ulcombe Place, near Maidstone, February 2.

Extremes of Climate in the British Empire.

YOUR correspondent (p. 299) who writes under this head in the current number of NATURE would make the labours of an editor as super-Herculean as those of the Highland minister who was called upon to incorporate the whole body of divinity in every sermon lest his flock should be misled.

That it would be wrong to generalise on the climates of the British Empire from eighteen stations, or to claim any one of them as the hottest or the wettest point, is obvious; but even in the few lines of your abstract you have not done this, and in my original summary (*Symons's Meteorological Magazine*, November, 1901, p. 167) I said:—

"It is true that neither the hottest, the coldest, the wettest nor the driest points in the Empire are dealt with; and the reader is warned, as on each previous occasion of presenting this annual summary, not to take the figures as meaning more than they profess to convey."

In order to secure continuity in the records, which are published monthly, it is necessary to obtain them from regular observatories: these are, unfortunately, few; but, fortunately for the student of climatology, they are usually situated in districts of normal rather than of extreme climate. Additional observations would certainly be welcome, and I hope during the present year to be able to publish monthly records from at least twenty-five stations in all the Britains.

HUGH ROBERT MILL.

62 Camden Square, London, N.W., January 31.

Elementary School Mathematics.

IN connection with the present discussion on the teaching of elementary mathematics in schools, and the recommendation made by many experienced teachers that much use should be made in geometry—at any rate in the earlier stages of actual