have been paid, and here it may be recalled that Newton placed him beside Wallis and Huygens as one of the leading geometers of the age.

Sir Philip Magnus, Bt.

THE many friends of that veteran educationist, Sir Philip Magnus, Bt., will be interested to learn that on Oct. 7 he celebrated the ninetieth anniversary of his birth. Sir Philip attended University College School, London (possibly he is now the oldest of its scholars), graduating afterwards at the University of London. He was secretary of the City and Guilds of London Institute from 1880 until 1888, and within this period was a member of the Royal Commission on Technical Instruction. Afterwards, for some thirty years, he was superintendent of the Department of Technology, City and Guilds of London Institute. Long devoted to the interests of the Royal Society of Arts, Sir Philip was elected its chairman of council in November 1927, succeeding Sir Thomas Holland. An inaugural and most comprehensive address delivered in that capacity was entitled, "The Royal Society of Arts: its Services to Trade and Training".

Prof. H. L. Le Chatelier

CONGRATULATIONS are also extended to Prof. Henry Louis Le Chatelier, the distinguished French chemist, who this week (Oct. 8) celebrates his eighty-second birthday. Elected a foreign member of the Royal Society in 1913, the distinction of the Davy Medal was conferred on him in 1916. As the result of prolonged investigation, he introduced the Le Chatelier thermoelectric couple, and inaugurated a new period in the measurement of high temperatures. One of the pioneers of micrometallurgy, he was among the first to provide exact methods in the science of industrial silicates. His scientific work has always been closely related to practical applications. Prof. Le Chatelier is the author of many memoirs and papers in scientific journals.

The Gregorian Reformation of the Calendar

THIS week is the 350th anniversary of the reform of the calendar ordained by Pope Gregory. The day following Oct. 4, 1582, was called Oct. 15. It is not always remembered that, in addition to the calendar changes, greatly improved lunar tables were introduced for the purpose of computing the date of Easter. An article in the *Southwark Record* notes that the necessary calculations were executed by Luigi Giglio (Aloysius Lilius), Ignatius Danti, and Christopher Clavius. It also points out that the ten days stolen from October are now being slowly repaid, as the 'Summer Time' reckoning gives October an additional hour each year.

Lighting of Picture Galleries

MANY visitors to picture galleries must have noticed that pictures are often hung on the walls of most galleries in such a way as largely to defeat the very object for which these expensive institutions exist. It is about 120 years since Prof. Henry in America first directed attention to the need for collaboration between architects and men of science in planning buildings suitable for music and speech. Gradually the inertia of professional conservatism in this matter has been partially overcome; there remain, however, important optical problems relating to the lighting of rooms in which pictures are to be displayed. Here the physicist can help, and already authorities in London are making experiments. At the Tate gallery, for example, may be seen the advantage of hanging pictures on only one wall of a room, and various schemes of artificial lighting are being tried at the National Gallery itself. It is now generally agreed that pictures in London should be glazed if only to keep them clean and free from deleterious gases. But there are other reasons too; experience has shown that enthusiasts cannot refrain sometimes from touching a canvas, and that pins or other things projecting from the headdress of lady visitors to a gallery have been known to scratch the pictures and do incalculable damage. Since it is the practice to hang all pictures flat against the walls, the reflection of those on the opposite wall, as well as that of an observer, frequently renders it very difficult to make out detail in a painting. For example, in Room 25 of the National Gallery, Trafalgar Square, the large equestrian portrait of Charles I reflects well all the other pictures in that room, a good deal of the roof and the large and extremely ugly warming device and seat in front of it.

Reflection from Glazed Pictures

IN directing attention to the question of avoiding reflection from glazed pictures, Mr. Robert Howden has rendered a useful service both to artists and the public. His paper, read before the Royal Society of Arts on Oct. 3, clearly stated the elements and difficulties of the problem, and it is significant that Sir Edwin Lutyens was in the chair. Mr. Howden recommends replacing the usual flat glass by a sheet bent into a parabola. The adaptation of this device to shop fronts has recently been developed by Mr. G. Brown, and the effectiveness of such a scheme may be seen by viewing the interior of a motor show-room at 88 Regent Street, London, through the curved plate glass windows. No reflection of the street can be seen and only the contents of the show-room is visible from without, so that the window itself does not seem to exist. If this could be applied to pictures in public galleries, it would indeed be a boon. But there is the question of cost and the ever-haunting thought that perhaps some other and simpler solution of the problem may not be out of reach. In order to be effective, pictures hung high up would require a different curvature of glass from those on a level with the eye, and then all the varieties of sizes and shapes of canvases or panels would offer further difficulties. Would it not be as well to try first the simple device of tilting the pictures a little forward? Why is that not done in the public galleries? We think this would at least be an improvement on existing conditions and, if sufficiently successful under the usual system of lighting, the walls of new galleries could be built so as to lean a little