has been circulated with the other schemes by the Royal Society; but one has been prepared. The present writer was asked by Professor Michael Foster to cooperate with Mr. Stout, the editor of *Mind*, who has been selected as the British representative of psychology. Mr. Stout prepared a detailed classification, which was extensively revised by my colleague, Professor Warren (the compiler of *The Psychological Index*) and myself. Our suggestions were all accepted by Mr. Stout and the schedule has been printed, a single copy reaching me some weeks ago. I know no reason for the failure of the committee to circulate it.

J. Mark Baldwin.

Princeton, August 16th.

The schedule for psychology was not presented to the Committee of Columbia University requested to report upon the plans. Neither, as I am informed, has it subsequently been sent to the responsible editor of Science, to the editor at present responsible for the *Psychological Review* and *Index* or to the professor of psychology of Columbia University. The proceedings of the Conferences on an International Catalogue of Scientific Literature appear to have been held in secret and concealed long thereafter. Science is, so far as I am aware, the only journal in the world that has given an adequate account of the conferences or extended reviews and criticisms of the plans. There is doubtless some reason for the methods of the Royal Society, but if the catalogue is to be begun with international assistance at the beginning of next year it is time that the explanation should be forthcoming.

J. McKeen Cattell.

POT-HOLE VS. REMOLINO.

To the Editor of Science: If more room can be spared for the discussion of so inconsequential a matter, may I say that a sufficient argument against the adoption of the word 'Remolino' lies in the fact that it is not needed. The term 'Pot-hole' is with us, and, whatever its origin, its meaning is plain. There is no more cause for substituting a Spanish word here than for the substitution of the Spanish language for the English as a whole. One can but be reminded of the ridiculous attempts at substituting French names for good old American and English dishes on the bills of fare in many of our restaurants and hotels.

George P. Merrill,
Department of Geology, U. S. Nat. Museum.

NOTES ON PHYSICS.

THE TRANSMISSION OF LIGHT THROUGH ABSORBING MEDIA.

Professor Oliver Lodge, in his presidential address before the London Physical Society,* gives a historical sketch of the theory of the passage of light through absorbing media (opacity), the subject being brought down to date; in fact, Professor Lodge discusses some of Heaviside's results which are as yet unpublished. Those who are interested in the subject will find the address most interesting and instructive; it cannot, of course, be abstracted.

W. Voigt, in Wied. Ann. 1899, No. 7, gives a general solution of the equation of wave propagation in an absorbing medium. This solution is identical in form to the solution of the 'telegraph equation,' so-called, which expresses the attenuation and variation of form of a telegraph signal. Voigt refers to Poincaré and Picard as having discussed this subject of telegraph signalling and of light transmission through absorbing media.

Readers of English cannot hold Voigt, Poincaré and Picard seriously responsible for their ignorance of the fact that this whole subject of light transmission through absorbing media and of telegraph signals has been very completely worked out by Heaviside, for probably a very few English readers are familiar with his remarkable work. Professor Lodge's presidential address, mentioned above, is almost wholly devoted to the discussion of Heaviside's work, apparently because of its preponderating importance and exceeding simplicity.

Lodge gives, in his address, the steps in the solution of the equation of wave propagation in an absorbing medium (Heaviside, 1887), which, compared with Voigt's solution, is simplicity itself.

* Proceedings of Phys. Soc., XVI., pp. 351–386.

SPREADING AND REVERSAL OF SPECTRAL LINES.

WANNER, Wied. Ann. 68, p. 143, 1899, describes the change of the sodium spectrum when the light from the flame is repeatedly reflected back and forth through the flame. He finds a spreading of the D lines, accompanied by a sharply defined reversal, and a weak continuous spectrum in their neighborhood.

W. Voigt, Wied. Ann. 68, p. 604, shows that this observation of Wanner is in qualitative accord with his theory of the emission of a layer of gas, which theory shows that in the radiation from a thin layer the wave-length which would be most absorbed would be of maximum intensity; while the radiation from a very thick layer would give a continuous spectrum with a dark absorption line; that is, a reversal of the original spectral line.

LECTURE EXPERIMENTS WITH THE WEHNELT INTERRUPTER.

E. LECHER, Wied. Ann. 68, p. 623, 1899, describes some very beautiful experiments showing the action of a magnetic field upon the electric discharge from an induction coil using a Wehnelt interrupter. The experiments illustrate the well-known sidewise movement of the spark (arc) across the magnetic field. The high frequency obtained with the Wehnelt interrupter, together with the fact that the discharge approaches the character of an arc, makes the effect of the magnetic field most striking in appearance; and the author describes several arrangements of the apparatus well suited to lecture-room demonstration.

VELOCITY OF ELECTRIC WAVES IN AIR.

MR. G. V. MACLEAN describes, in *Phil. Mag.*, July, 1899, a very successful application of the coherer in the location of the modes and antinodes of a stationary electric wave train reflected from a metal sheet. Mr. MacLean's object was to determine the velocity of the waves from the observed wave-length and the periodic time of the oscillator.

The coherers used consisted essentially of two platinum globules which were adjusted to delicate contact, and a milliamperemeter in circuit with the coherer and a battery gave the indications. The coherer gave no response at all at the nodes, and the readings over more than a whole wave of the stationary train were remarkably regular considering the erratic space action of the ordinary form of the coherer.

W. S. F.

NOTES ON INORGANIC CHEMISTRY.

THE great problem in obtaining argon from the atmosphere is to remove the nitrogen. In the earlier experiments, as in that of Cavendish, the electric discharge was passed through air confined over potash, whereby the nitrogen is gradually oxidized and absorbed. Later it was found that nitrogen was absorbed directly by various metals with different degrees of rapidity. Magnesium was first used by Ramsay, and somewhat later Ouvrard used lithium, while more recently Maquenne's mixture of magnesium with lime has been found practically most efficient. A very thorough study of the different absorbents has been made by Hempel, in the *Zeitschrift für anorganische Chemie*. He finds that lithium is five times as efficient as magnesium, the magnesium-lime mixture eight times, while if to a mixture of one part magnesium dust with five parts lime a quarter part of sodium is added, this absorbent is no less than twenty times as rapid in its action as magnesium alone.

THE early experiments of Professor Berthelot on the absorption of argon by organic compounds under the prolonged action of the silent discharge have now been very largely extended, and are described in the *Comptes Rendus*. With quite a large number of compounds of the fatty series, such as ethylene, aldehyde, acetone, propionitril, the result was negative. On the other hand, with benzene, turpentine, phenol, benzaldehyde, benzonitril and quite a number of other compounds of the benzene series from one to six per cent. of argon was absorbed, and at the same time there was a fluorescence of greenish color and with a characteristic spectrum.

IN the same number of the *Comptes Rendus* there is an interesting observation by M. Chesnan to the effect that chromous salts, like ferrous, have the property of absorbing nitric oxid. The compound formed, however, is