

through a deep trough, or hollow of a wave, in the surface of the atmospheric ocean; in which the diminution of the friction might occasion a loss of incandescence; a suggestion rather favoured by the repetition of the phenomenon. Perhaps the meteor was only making ducks and drakes.

Rainhill, November 17

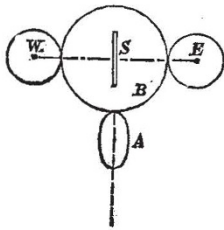
HENRY H. HIGGINS

Integrating Anemometer

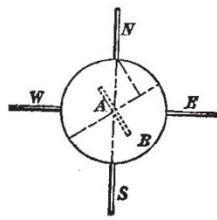
J'AI lu avec beaucoup d'intérêt la controverse suscitée dans les colonnes de votre estimable journal, à propos de "l'Anémomètre Intégrateur" présenté par M. Hele Shaw et le Dr. Wilson à la dernière réunion de "l'Association Britannique." Il arrive souvent, dans l'histoire des inventions, qu'une même idée, quoique diversement modifiée, vient presque simultanément à l'esprit de plusieurs individus travaillant dans des directions indépendantes, et il en résulte ainsi des questions de priorité difficiles à décider.

Ce n'est pas pour une question de ce genre que j'ose vous écrire aujourd'hui; mais l'idée de l'anémomètre intégrateur m'était venue aussi il y a quelques années, et la description de celui inventé par M. A. von Oettingen, que j'ai lu dans le "Reperitorium" de M. Wild en juillet, 1878, me conduisit, si je n'ai pas mal compris, à la forme même de l'appareil de MM. Shaw et Wilson, et quelques jours plus tard à une autre, plus parfaite à mon avis, et que je n'ai pas encore eu l'occasion de mettre en pratique. C'est celle dont les organes les plus essentiels ont été représentés dans les figures ci-jointes.

Un disque (roller) vertical A peut, comme dans l'instrument de MM. Shaw et Wilson, prendre la même orientation que la girouette et au même temps tourner sur son axe horizontal avec une vitesse proportionnelle à celle du vent. Sur ce disque s'appuie une sphère B, de poids et dimensions convenables, qui est aussi soutenue latéralement par quatre disques verticaux N., E., S., W., situés à angle droit entre eux. Le disque A fait mouvoir la sphère B dans le même plan vertical, et celle-ci les quatre disques latéraux; de sorte que, si les points de contact de ces disques avec la sphère ont lieu sur l'équateur dont le pôle est le point de contact du disque moteur, la vitesse totale de celui-ci s'y trouvera décomposée dans les directions fondamentales N., S., E., W. Dès lors il suffira de munir chaque disque N., E.,



Projection verticale.



Projection horizontale.

S., W., ou bien deux disques quelconques adjacents, d'un compteur spécial, pour obtenir les composantes cardinales du vent.

Cet anémomètre intégrateur sera, comme ceux de MM. Shaw et Wilson et de M. Burton, plus simple que celui de M. von Oettingen, et en outre son action deviendra, pour ainsi dire, indéfinie, la transmission du mouvement s'y effectuant au moyen d'une sphère. Cette transmission se fait ici par roulement sans glissement, ce qui n'a pas lieu dans le système de M. von Oettingen, où cette circonstance constitue un grave défaut.

Pour ne pas prolonger trop cette lettre, je n'insisterai plus sur mon anémomètre, dont les indications peuvent être obtenues de diverses manières, et dont le mécanisme est susceptible de recevoir plusieurs applications.

Si vous croyez que les lignes précédentes contiennent quelque idée nouvelle et utile, je vous prie de vouloir bien les insérer dans votre estimable journal. En attendant je vous remercie d'avance, et veuillez aussi, Monsieur, agréer l'assurance de ma plus haute estimation.

Madrid, le 5 novembre

V. VENTOSA

Geological Results of the Late Gales

THE late gales have had a very powerful effect in redistributing the beach-deposits along our coasts, and though many well-known geological sections have no doubt been covered up

in consequence, many new ones have at the same time been brought to light. In this neighbourhood, for instance, at Whitley-by-the-Sea, near Tynemouth, a section of the highest interest to local geologists has been uncovered within the last few weeks, showing a well-marked unconformity within the Coal-measures, which I, for one, although familiar with the place for years, was totally unaware of, and which, if ever observed before, has certainly never been recorded. For some time to come the section will probably remain exposed at low tides, as the sand which formerly concealed it has been entirely swept away. I will not weary your readers with a detailed description of the section, which will, in due time, be more appropriately published elsewhere, but merely beg to record the observation as an example of the kind of new matter that many geologists resident on or near our coasts will probably come across by searching along the cliff-bases just now.

November 15

G. A. LEBOUR

The Recent Weather

AT 11 o'clock last night two thermometers outside stood at 66°·75. It was pitch dark, and blowing fresh from south-south-west. When last tested, these thermometers were not 25 of a degree in error. Was such a temperature ever registered at such an hour on the 13th November before in Great Britain or Ireland?

RICHARD M. BARRINGTON

Bray, Co. Wicklow, Ireland, November 14

Dipladenia amabilis

IF it is not already well known, it may interest some of your readers to hear that flowers of the *Dipladenia amabilis* last for a much longer time when placed in water if their tubes be also filled. Even when "too utterly weary" they can be revived in the manner I have mentioned. This may have reference to the fact that these flowers, unlike many creepers, generally turn upwards, and would therefore be likely to catch rainwater.

AMY MULHOLLAND

High Elms, Hayes, Kent, November 13

"The Lepidoptera of Ceylon"

WITH reference to the remarks of Dr. H. Trimen (vol. xxv. p. 32) to this work, now in course of publication under the patronage of the Ceylon Government, of which Parts I. and II. only had then reached him, and especially to the "protest" which he "feels bound to enter" against the name of the artist as there printed at the foot of the several plates, I may be allowed to state that the original drawings made by the native artist, Mr. W. de Alwis (representing about 350 species, or one-third only of the number of Ceylon Lepidoptera known to the author, and that will eventually be figured in this work), which Dr. Trimen states are in the Colombo Museum, were copied by his brother, Mr. George de Alwis, for Sir William H. Gregory, whilst Governor of the Island. These copies are in the author's hands, and it is from them, wherever a suitable figure is available, as well as from specimens of the actual species there represented, that the drawings, and afterwards the lithographing the figures on the stone, were made. The artist's name, as there printed on the several plates of the work, is consequently perfectly correct. In due course, Part IV.—completing vol. i. of this work—will reach Ceylon, wherein the preface is printed, and Dr. Trimen will there see that the native artist to whom he so specially refers, receives the necessary acknowledgment of his labours from the author.

F. MOORE

Penge, S.E.

A GLIMPSE THROUGH THE CORRIDORS OF TIME¹

I.

YOUR Committee has done me much honour by inviting me to deliver the first lecture in this large and very beautiful hall. In accepting the task I was aware that it involved a great responsibility, but I had various grounds of encouragement. I remembered that I was not coming among you as a stranger, and I knew that I had a subject worthy of a memorable occasion. I would I were

¹ Lecture delivered at the Midland Institute, Birmingham, on October 24, 1881, by Prof. Robert S. Ball, LL.D., F.R.S., Andrews Professor of Astronomy in the University of Dublin, and Royal Astronomer of Ireland. Contributed by the Author.