

In 1881 Julin and E. van Beneden proposed the homology of the neural gland in the Tunicata with the vertebrate pituitary body. Professor Herdman has suggested a modified theory—that the neural gland, its duct, and the dorsal tubercle (and therefore also the original pituitary body) were formed by the conjunction of a primitive renal organ and a sense organ.

Some of Professor Herdman's views have been subjected to considerable criticism by continental biologists, but it is universally acknowledged that his remarkable series of papers on the Tunicata are characterised by great ability, and the Council have accordingly adjudged to Professor Herdman for these papers the Neill Medal.

The following Communications were read :—

1. On Efficiency of Clothing for maintaining Temperature.  
By Sir W. Thomson.
2. On the Law of Inertia ; the Principle of Chronometry ;  
and the Principle of Absolute Clinural Rest, and of  
Absolute Rotation. By Professor James Thomson,  
LL.D., D.Sc., C.E.

There is no distinction known to men among states of existence of a body which can give reason for any one state being regarded as a state of absolute rest in space, and any other being regarded as a state of uniform rectilinear motion. Men have no means of knowing, nor even of imagining, any one length rather than any other, as being the distance between the place occupied by the centre of a ball at present, and the place that was occupied by that centre at any past instant ; nor of knowing or imagining any one direction, rather than any other, as being the direction of the straight line from the former place to the new place, if the ball is supposed to have been moving in space. The point of space that was occupied by the centre of the ball at any specified past moment is utterly lost to us as soon as that moment is past, or as soon as the centre has moved out of that point, having left no trace recognisable by us of its past place in the universe of space.

There is then an essential difficulty as to our forming a distinct