III. Supplement to a Paper "On the Differential Equations of Dynamics." By Professor GEORGE BOOLE, F.R.S. Received February 9, 1863.

(Abstract.)

It is shown in the general paper that if an integral of any one equation of the peculiar system of (partial differential) equations there discussed be found, then if a certain numerical result of subsequent and always possible operations prove *odd*, an integral of the entire system can be found by the solution of a single differential equation of the first order. It is shown in the paper now sent that, when the above numerical result is *even**, we can reduce the original system of partial differential equations into a new system, fewer in number by unity at least, and of the same general character, so as to admit of a repetition of the same procedure. Thus the common integral sought will finally be given either by the solution of a single differential equation of the first order, or by finding one integral of the single partial differential equation, which, in the most unfavourable case conceivable, will remain at last.

March 19, 1863.

Major-General SABINE, President, in the Chair.

The following communications were read:—

I. "On Peculiar Appearances exhibited by Blood-corpuscles under the influence of Solutions of Magenta and Tannin." By WILLIAM ROBERTS, M.D., Physician to the Manchester Royal Infirmary. Communicated by Dr. SHARPEY, Sec. R.S. Received February 18, 1863.

The object of the following paper is to give an account of certain observations which seem to indicate that the cell-wall of the vertebrate blood-disk does not possess the simplicity of structure usually attributed to it.

It is well known that the blood-corpuscles, when floating in their own serum, or after having been treated with acetic acid or water,

* Also when *odd*, but then not required.