

$$f(0)f(1) = 0 : \dots\dots\dots (22)$$

which is the result of the elimination of x from equation (21). We cannot pause to give examples of the use of the formula (22); but we must quote an interpretation of it, viewed as the result of the elimination of x from (21), which strikes us as extremely elegant. The formula implies that either $f(0) = 0$, or $f(1) = 0$. Now the latter equation $f(1) = 0$ expresses what the given proposition $f(x) = 0$ would become if x made up the universe; and the former $f(0) = 0$ expresses what the given proposition would become if x had no existence. Hence, (22) being derived from (21), it follows that *what is equally true whether a given class of objects embraces the whole universe or disappears from existence, is independent of that class altogether.*

The principle of elimination is extended by our author to groups of equations, by the following process. Let

$$\left. \begin{array}{l} T = 0, \\ V = 0, \\ U = 0, \\ \dots\dots\dots \end{array} \right\} \dots\dots\dots (23)$$

be a series of equations, in which T , U , V , &c., are functions of the concept x . Then

$$T^2 + V^2 + U^2 + \&c. = 0. \dots\dots (24)$$

It is shown by Professor Boole that the combined interpretation of the system of equations (23) is involved in the single equation (24). Indeed, had all the terms in the developments of T , V , U , &c., been such as to satisfy the Law of Duality, it would have been sufficient to have written

$$T + V + U + \&c. = 0.$$

In order now to eliminate x from the group (23), it is sufficient to eliminate it, by the method described in the preceding paragraph, from the single equation (24); and, if the result be

$$W = 0,$$

this equation will involve all the conclusions that can legitimately be derived from the series of equations (23) with regard to the mutual relations of the concepts, exclusive of x , which enter into these equations.

We do not see how it is possible for any one not blinded by prejudice against every thing like an alliance of Logic with formulæ and