duced one of the heroes of mathematics ; but there are now among us a dozen universities in each of which something, be it much or little, is being added to that splendid monument of human thought which bears the record of conquests made by so many of the intellectual giants of our race.

Among these giants Sylvester has without question the right to be reckoned. In the history of mathematics, his place will not be with the very greatest; but his work, brilliant and memorable as it was, affords no true measure of his intellectual greatness. Those who came within the sphere of his personality, could not but feel that, through the force of circumstances combined with the peculiarities of his poetic temperament, his performance, splendid as it was, has not adequately reflected his magnificent powers. Those of us who were connected with him cherish his memory as that of a sympathetic friend and generous critic. And in this university, as long as it shall exist, he will be remembered as the man whose genius illuminated its early years, and whose devotion and ardor furnished the most inspiring of all the elements which went to make those years so memorable and so fruitful.

## HYPERBOLEA AND THE SOLUTION OF EQUATIONS.

BY MR. C. H. HINTON.

In the following pages, after a few remarks on the system of mathematics in vogue in Hyperbolea, I wish to show that a consideration of the methods of the Hyperboleans leads to a graphical representation of quantities by which, given an appropriate train of mechanism, not only the real, but also the imaginary roots of an equation can be mechanically found.

Hyperbolea is a land in which distance is measured by the function $\sqrt{x^{2}-y^{2}}$. This, with its attendant consequences, sufficiently defines the locality.

Let $A B$ be a straight line. Numbers give the ordination of positions on it. The length between any two positions is a physical notion. If $p$ is a material rod the intervals $A C$ and $B D$ are said to be equal if the rod $p$ occupies at one time the interval $A C$, at another time $B D$ without observable distortion in the transference. Taking a two dimensional number system we have besides the system $A B C$ another system of positions $A A^{\prime} A^{\prime \prime}, B B^{\prime} B^{\prime \prime}$ and so on. The

