age quoted above shows, such an idea must have been before the mind of Jacob Steiner when he wrote the 'Systematische Entwickelung.' Through Euclid geometricians had learnt to begin with the straight line of definite—not indefinite—length, the triangle, the circle, advancing to more complicated figures; practice had made geometry a science of mensuration, involving number; the convenience of practice in astronomy, geodesy, and geography had introduced the artifice of referring points and figures in space to certain arbitrarily chosen data—points and lines. The terms "right ascension" and "declination," "altitude" and "azimuth," "latitude" and "longitude," led to the co-ordinates of Descartes and to analytical geometry. In this older and modern geometry, the beginnings were arbitrary, and many conceptions were introduced which were foreign to the object of research. It was through a slow process that in quite recent times—notably during the nineteenth century — mathematicians became aware how artificial were their methods, and with how many foreign elements they had encumbered the objects of their study. To replace the artificial by natural conceptions, and to open the eyes of geometricians to the advantage of not confining themselves to the point (its motion and distances) as the element in their space construction, no one did more than Julius Plücker of Bonn. We have now not only a point-geometry, but likewise a line-geometry — *i.e.*, we have a geometry in which the line is the primary element, the point being the secondary element, defined by the intersection of two lines. This conception, which