



FIG. 5.

In the XVI century some artists tried to dislocate, so to speak, the structure of the pictorial space. The results of these *fancies* were called Anamorphosis (fig. 5). These representations, somehow, disregarded the notion of equidistance or the metrical constant of space. (The figures were disproportionate.) The distortion of the image conveyed a certain displacement of matter, and in a curious manner made the painting look more energetic than substantial. As far as I know these experiments have not been considered more than mere extravaganzas and have not been given much attention. (3)

Consequently, the arrangement of elements in accordance with the Euclidean scheme seems to have prevailed in most explorations in the rectangular canvas.

In 1876, William Kingdom Clifford published a paper in which he expressed the following:

- (1) *That small portions of space are in fact of a nature analogous to little hills on a surface which is on the average flat; namely that the ordinary laws of geometry are not valid in them.*
- (2) *That this property of being curved or distorted is continually being passed on from one portion of space to another after the manner of a wave.*
- (3) *That these variations of the curvature of*

*space is what really happens in that phenomenon which we call the motion of matter, whether ponderable or ethereal.*

- (4) *That in the physical world nothing else takes place but this variation, subject (possibly) to the law of continuity. (4)*

For Clifford, somehow, substance is an accident of space. This is the apotheosis of many centuries of thinking. In Aristotle space is identified with place and defined as adjacent boundary of the containing body. Aristotle conceived space as a contingency of matter. Clifford reversed this concept and in a very beautiful manner ended with the reign of the Euclidean conception. Space is not homogenous; it has turbulences where the laws of Euclidean geometry are not the case. The notion of regularity, then, is lost. Space behaves in a manner comparable to jelly. In Figures 6 and 7, I try to convey this notion. Since these notes are somehow paradigmatic I started the example with an image enclusted in a regular grid (Euclidean) and then transformed it, through a conformal transformation, into a *new grid*. This grid is not metrical, the intervals between its elements are not regular, the straight angles have been lost, the only possible invariant kept is that of the neighborhood of the points. This image, then, expands and contracts accordingly. In the *old order* the displacement of a body in space did not affect its metrical properties; in this new grid the image changes size continuously.