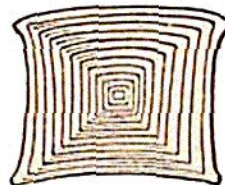


which were erected two thousand years ago, constructed on the same principle, and relatively of the same parts, as internal arches of brick built in the present age. Doubtless, however, with this mechanical necessity for correspondence of parts in the formation of corresponding erections, there may have mingled that regard for typical resemblance which seems so marked a characteristic of the *style*, if I may so express myself, in which the Divine Architect gives expression to his ideas. The external osseous buckler He divided after the general pattern which was to be exemplified, in latter times, in the divisions of the internal osseous skull; as if in illustration of that "ideal exemplar" which dwelt in his mind from eternity, and on the palpable existence of which sober science has based deductions identical in their scope and bearing with some of the sublimest doctrines of the theologian. "The recognition," says Professor Owen, "of an ideal exemplar for the vertebrated animals, proves that the knowledge of such a being as man existed before man appeared; for the Divine mind which planned the archetype also foreknew all its modifications. The archetypal idea was

coid skull and the placoid vertebra, to which I have referred, appears to hinge on the circumstance, that while the osseous nucleus of each vertebral centrum could form, in even its most complicated shape, from a *single* point, the osseous walls of the cranium had to be formed from *hundreds*. The accompanying diagram serves to show after what manner the vertebral centrum in the Ray enlarges with the growth of the animal, by addition of bony matter external to the point in the middle, at which ossification first begins. The horizontal lines indicate the lines of increment in the two internal cones which each centrum comprises, and the vertical ones the lines of increment in the lateral pillars.

Fig. 23.

SECTION OF VERTEBRAL
CENTRUM OF THORN-
BACK.