

ligaments. On their side faces the spines are smooth in a narrow axial area sharply defined in front, above, and behind from the marginal zone which latter is horizontally furrowed by grooves of varying depth and distance apart. This marginal extension is slightly less in transverse thickness than that of the axial part of the spine and has an anterior and posterior face rendered rugose by deeply pitted projections and anastomosing channels running irregularly in a general vertical direction, Figure 15. In the type the distal ends of the spines in some of the dorsals

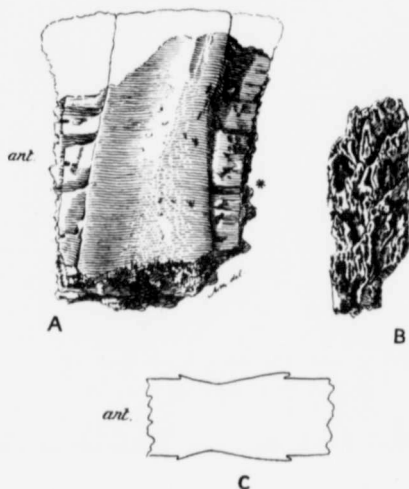


Figure 15. Distal end of neural spine of dorsal vertebra of *Gorgosaurus*; separate specimen; $\frac{1}{2}$ natural size. Cat. No. 350. A, left lateral aspect; B, anterior view; C, outline of transverse section at *, *ant.*, anterior.

have increased to such an extent in an antero-posterior direction as to approach each other closely and even to effect a union. This distal enlargement of the neural spines occasioned by the development of rugose areas is most developed in the dorsal vertebrae, in the fifth to the ninth vertebra of this series in the type. The spines of the cervical vertebrae show like structural characters somewhat modified, and in the tail they are still less marked. During the preparation of the type specimen, the sandstone matrix between the upper ends of the neural spines of the dorsal vertebrae, more particularly from the fourth to the