

anterior four caudals, and had the same shape and direction as in the lumbar vertebræ; they rapidly diminished in size in the fifth and sixth, and in the seventh were reduced to a faint ridge projecting from the anterior half of the side of the body. Metapophyses, which were non-articular, projected forwards from the anterior edge of the laminæ of the anterior seven vertebræ, and a shorter pair of processes projected backwards from the posterior edge of the laminæ of the anterior four vertebræ. The posterior eight caudals were merely the bodies of vertebræ. The inferior surface of the body of each of the anterior fifteen caudal vertebræ was grooved antero-posteriorly, and on this surface in the anterior nine vertebræ were articular facets for eight chevron bones. Only five of these bones were present in this skeleton, viz., the larger and most anterior; it is not unlikely that the more posterior chevrons had not been ossified.

In von Haast's specimen, as in this, the spinous processes disappeared behind the tenth, and the transverse processes behind the seventh caudal vertebra; but there were nine instead of eight chevron bones. In both *Mesoplodon grayi* and *Mesoplodon australis*, again, Professor Flower found that the neural arch and spine were present on the eleventh caudal, and that the last trace of the transverse process did not disappear until the ninth caudal.

*The Ribs.*—There were nine pair of ribs, corresponding in number to the dorsal vertebræ. The first was the broadest and shortest, from which they increased in length, but diminished in breadth, to the fourth, when they again diminished in length to the ninth. The anterior seven each articulated both with a vertebral body and with a transverse process. From the second to the seventh inclusive, each rib possessed a distinct head and tubercle separated by an intermediate neck; but the first had an elongated articular surface at its vertebral end without any definite demarcation into head and tubercle. Each of these ribs was jointed by its head to the body of the vertebra in front of that to the transverse process of which it was articulated by its tubercle, but the head of the seventh rib was articulated with the bodies of both the sixth and seventh dorsal vertebræ, whilst its tubercle articulated with the transverse process of the seventh dorsal. The eighth and ninth ribs had each only a single articular surface at its vertebral end, which was jointed with the transverse process projecting from the side of the body of the corresponding dorsal vertebra. The greatest breadth of the first rib was  $2\frac{1}{2}$  inches, its length along its posterior border was  $11\frac{1}{4}$  inches. The greatest breadth of the fourth rib was in the region of the tubercle, viz.,  $1\frac{3}{4}$ ths of an inch, and its length along the posterior border was 2 feet. The length of the last rib cannot be given, as it was broken.

In von Haast's specimen, where ten ribs were on each side, the eighth, ninth, and tenth had each only a single articular surface at its vertebral end for articulation with its corresponding vertebra. In *Mesoplodon grayi*, also with ten pairs of ribs, only the ninth and tenth had a single articular surface at their vertebral ends for articulation respectively, with the transverse processes from the side of the bodies of the ninth and tenth vertebræ, whilst the eighth rib was attached to the articular surfaces on the con-