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Anatomical Studies, No. 42: Polydactylism in a Pig.

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THE above condition was observed in June last at the Pretoria Abattoir and Mr. G. Pilditch, the Superintendent, kindly handed the specimen to the Teratology Class for description. It is interesting that the *fore* limbs were involved (Curson 1931).

The *left foot* bore medially an additional digit, which, for convenience will be named the first. It was, however, not only thicker and longer than the second digit, but it presented distally a vestigial structure to which reference will be made when describing the bony components. The digit in question was directed towards the lateral aspect of the foot and was slightly twisted so that the sole faced outwards. The manus otherwise appeared normal.

On removal of the soft structures (which were not studied) it was found that the manus except for the presence of the additional digit was normal.

The (first) digit possessed a well-developed metacarpus which articulated, as did the second metacarpus, with the first carpal bone. There was also present at the lateral aspect of the head a facet for articulation with the medial aspect of the head of the second metacarpus. Fused to the medial aspect of the third phalanx was a bone, which clearly represented the third phalanx of yet another digit. Articulating proximally with this was a small bone corresponding to a second phalanx but which in Fig. 1 gives, on account of it being broken, the impression that two bones are present. This small bone articulated with the second phalanx (of the first digit) by means of a small lateral facet.

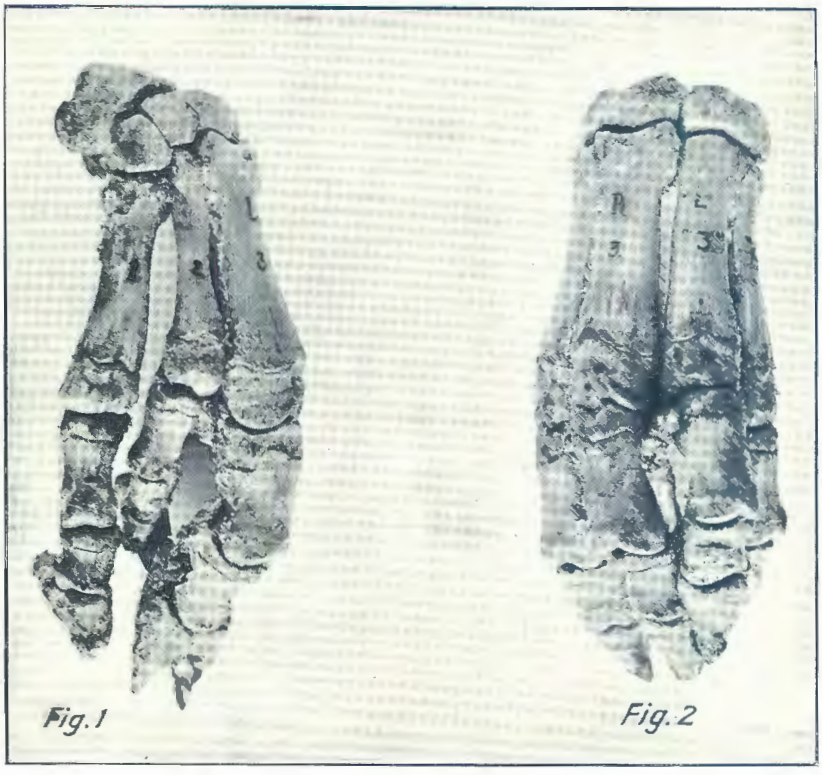
The *right foot* bore in addition to the normal third, fourth and fifth digits, three digits on its radial side. Two of these, except for their slightly smaller size corresponded to the normal left third and fourth digits, and except for being a trifle shorter, gave the impression of forming the chief digits of another " foot ". A small digit, easily seen from the volar aspect of the foot, was wedged in between the normal and extra chief digits. This, in spite of its relatively small size, may be taken to represent the second digit of either the normal or extra " foot ". Dissection and removal of the soft structures, however, seemed to associate it more closely with the extra " foot ". See Fig. 2.

On studying the individual bones it was evident that the three supernumerary digits (the third, fourth and fifth digits were regarded as normal) could be viewed, as indicated above, as belonging to an additional " foot ". Instead of one digit, the second, being present, the metacarpals and bones of the third and fourth chief digits of a

left foot were to be seen. As mentioned above, the small supernumerary digit,(×) on account of its intimate fibrous attachment to the proximal part of the first phalanx of the third digit of the additional " foot ", might be considered to belong more properly to the extra " foot ".

Unfortunately the proximal row of carpal bones was not collected, but the first and second bones of the distal row were fused and the ventral surface provided an articulation for the proximal ends of the chief digits of the additional " foot ".

On the dorsal surface of the second phalanx of the third digit of the additional " foot " an exostosis was present.



The position may be summarised by stating that the *left* foot possessed an additional (first) digit, and to the third phalanx of this was fused the rudiment of yet another medial digit. The *right* foot, besides having its normal chief digits and fifth accessory digit, showed medially three digits (two chief and second accessory digits) of a left " foot ".

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