

SKELETAL ADJUSTMENTS IN A
THREE-LEGGED CHICKEN*

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The specimen described in this paper was a full-grown Rhode Island Red cockerel offered for sale in a Chicago market. Except for the duplication of the leg on the right side of the body, it was a perfectly normal bird, in good condition. The superfluous leg was flexed, extended posteriorly, and evidently caused no inconvenience.

The duplication was unilateral; that is, the right leg with its pelvis was completely duplicated but there was nothing abnormal on the left side of the body. The right pelvis was somewhat irregular in shape and size, being 12 mm. shorter than the normal left pelvis and having the posterior region of the ischium shortened about 5 mm. The anterior pelvis had separated from the sacrum at the posterior end to make room for the secondary structure, and this made necessary a slight curve in the sacral vertebrae, together with other minor changes and shifts. This region of the sacrum became asymmetrical, with an additional rib on the side of the duplication and with an additional process connecting with the pelvis. All the processes of the sacrum were lengthened on the right side.

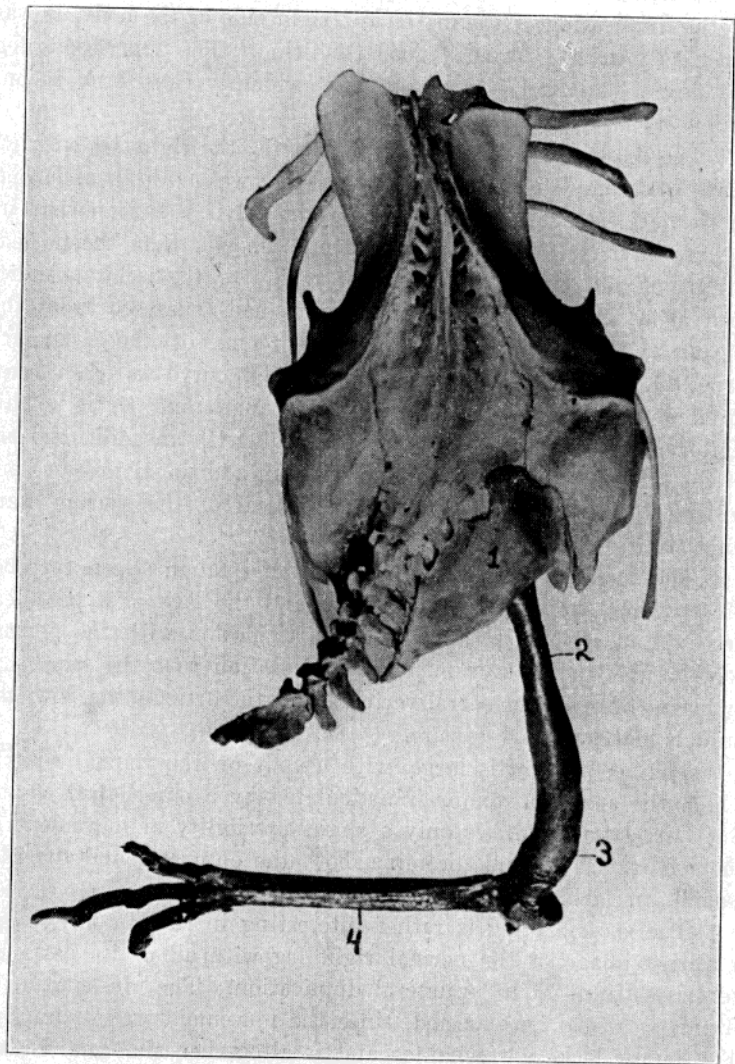
The accessory pelvis is somewhat abnormal in appearance because of the shortening of the ilium and the lack of a pectineal process and a pubis to allow better articulation with the normal pelvis and with the sacrum. The articulation with the sacrum is by means of one large sacral vertebra, but the articulation with the caudals makes it fairly secure.

The acetabulum is large, with a spur on the ventral rim, to which the accessory femur is articulated by a cup-shaped cavity. Such articulation allows only a slight possibility of movement in the femur. The usual foramina, both the obturator and the ilioischial, are lacking.

The accessory leg is rather interesting in its anatomy, being a mirror image of the normal right leg with all of its parts reversed, as is usual in unilateral duplication. The musculature is slight, as would be expected, since the movement was so limited. The femur lacks a trochanter and is altogether abnormal in ap-

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pearance, having a cup-shaped cavity instead of an articulating head. The tibiotarsus is very much shortened, being only about 15 mm. long, and is ankylosed to the femur. The tarso-metatarsus is also shortened, and the three bones that make up this segment, though joined, show their origin as distinct bones very clearly. The toes are abnormal in that the first is lacking and the fourth lacks one phalanx.



Dorsal view of the synsacrum, pelvis, and accessory leg of a three-legged chicken: (1) accessory pelvis, (2) femur, (3) tibiotarsus, (4) tarsometatarsus.