

## A TEAL WITH A BROKEN HUMERUS

In 1929 Mr. Richards noticed at Tantanoola a Grey Teal (*Querquedula gibberifrons*) flying erratically, and shot it. The bird was later dressed and prepared for eating, when it was noticed that the humerus of the left wing was deformed as the result of a bad break and subsequent unusual repair. An X-ray of the broken humerus was taken. The shaft had been broken across at about one-third of the length from one end, and the muscular pull had separated the broken ends by a distance of 20 mm. and overlapped them by a similar distance. A bony bridge 15 mm. wide and 10 mm. span had been formed to connect the two portions of the broken shaft. The ends of the fractured bone had been rounded off, and played no part in the repair, which had been carried out by the periosteum of the shaft of each fragment for some distance from the break—amounting in one portion to the whole length of the fragment.

Apparently the periosteum had been torn somewhat along these lengths, and this had rendered the periosteum active, to send out osteoblasts to invade the mass of granulation tissue known as "callus," which occupied the space between the fragments shortly after the injury, and convert it into true bone. An inspection of the X-ray picture showed that the bony fibres thus formed had taken definite directions to render the resulting bridge capable of standing the strains which would later be imposed on it in the manner most calculated to be effective. The resulting architecture of the bridge is a good example of how Nature provides structural details to withstand stress where it is most required.

The specimen was donated to the South Australian Museum by Mr. P. K. Bidmeade, who received it from Mr. Richards some years ago.

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