

yield good results, and that *our results almost from the beginning of our work together were excellent!* Indeed, so far as I have been able to determine, Carrel working first with Berard, then with Morel in France, and later by himself in Dr. Carl Beck's laboratory in Chicago, claims only one permanently successful result.⁴ This was an arterio-venous anastomosis made with Morel between the jugular vein and carotid artery of a dog. The animal was under observation but a short time and ultimately was lost, so no direct examination of the result was made. But in all probability it would have remained good. He attributed his earlier unsuccessful results to "poor asepsis," but since I have observed that moderate infection is of slight importance as regards the result which such blood vessels as he used are united by the methods perfected by him and myself, this, it would seem, is not the full explanation. As to priority, it gives me great pleasure to express my high regard for Dr. Carrel's persistence in the face of a long series of unsuccessful operations and I desire to in no way endeavor to attach any of the credit he deserves for this devotion.

Many experimenters have endeavored to sew together openings in blood vessels and to unite them end-to-end. To verify this statement one need only to refer to a modern work on surgery, *e. g.*, "American Text-book of Surgery," 1903, p. 292. Murphy, himself the author of a successful method of end-to-end anastomosis—a method used successfully on man—gives a short but valuable summary of the literature,⁵ beginning with the successful suture of a longitudinal incision in an artery in 1762 by Broca.

The dubious distinction of *priority* which it would appear is the goal sought by some of our contemporaries, presents slight attraction to the sincere investigator whose reward largely is the consciousness that his labors may in the end add a line to the encyclopedia of science.

⁴ See *Surgery, Gynecology and Obstetrics*, March, 1906, II., p. 269.

⁵ "Resection of Arteries and Veins Injured in Continuity—End-to-End Suture," *Medical Record*, January 16, 1897.

In addition to the references given above a list of the more important papers published conjointly by Carrel and the writer is appended:

"Functions of a Transplanted Kidney," *SCIENCE*, N. S., October 13, 1905, XXII., p. 473.

"Extirpation and Replantation of the Thyroid Gland with Reversal of the Circulation," *SCIENCE*, N. S., October 27, 1905, XXII., p. 535.

"Transplantation Biterminale Complète d'un Segment de Veine sur une Artère," *Comptes Rendus Heb. des séances de la Société de Biologie*, Novembre 17, 1905, LIX., pp. 412-13.

"Successful Transplantation of both Kidneys from a Dog into a Bitch, with Removal of both Normal Kidneys from the Latter," *SCIENCE*, N. S., March 9, 1906, XXIII., pp. 394-5.

"Results of a Replantation of the Thigh," *SCIENCE*, N. S., March 9, 1906, XXIII., pp. 393-4.

"A New Method for the Homoplastic Transplantation of the Ovary," *SCIENCE*, N. S., April 13, 1906, XXIII., p. 591.

C. C. GUTHRIE
DEPARTMENT OF PHYSIOLOGY,
WASHINGTON UNIVERSITY,
ST. LOUIS

WILLIAM KEITH BROOKS

TO THE EDITOR OF SCIENCE: Allow me to call attention to several errors that appeared in my sketch of William Keith Brooks, in *SCIENCE*, for the fourth of December, 1908. On page 777 Brooks's college education is ascribed to his own exertions, but in fact not only did his parents put no obstacles in his way but his father sent him to Hobart College and later to Williams College. It was only his subsequent, post-graduate training, that required Brooks's own labors. Moreover, it is doubtful if his experience in his father's counting-office was not after he had finished his college education. Again on page 778 Hobart College is confounded with the De Vaux College, a school for boys near Niagara Falls. It seems that Brooks was a student at Hobart, entering in 1866, and leaving at the end of his sophomore year to go to Williams College, where he graduated in 1870. *Subsequently* he taught, as one of the masters, at De Vaux College, from 1870 to 1873. On the same page Tyron should read Tryon and H. Tuttle, Albert H. Tuttle.

E. A. ANDREWS