CONICAL STUMP AFTER AMPUTATION IN CHILDHOOD.*

BY CHARLES A. POWERS, M.D., DENVER, COLO.

THE patient is a girl of thirteen years whose left arm was amputated in its upper fourth by Dr. L. A. La Garde, of the United States Army, for congenital cavernous telangiectasis eighteen months ago. The condition for which the amputation was done extended from the fingers to the upper and middle thirds of the arm. Dr. La Garde kindly asked me to see the case in consultation with him; he exhibited the little patient at meetings of this society both before and after operation. The amputation stump was in all ways excellent, the flaps were ample, the bone well covered.

Those of you who were here when the patient was shown directly after the amputation may remember that the view was expressed that the bone would "grow down," that the stump would become conical and require bone resection. At this time you see that the prediction has been fulfilled; the stump is markedly conical, the bone presses against the skin, the skin is beginning to be adherent through this pressure. The stump is painful and a suitable amount of bone will be resected tomorrow.¹

In previous papers² I have called attention to the practical certainty that when a little child suffers amputation through the upper part of the arm or the upper part of the leg a conical condition of the stump will result. I have never known this to fail. It occurs because the humerus and the bones of the leg develop in large part from their upper epiphyses. The growth takes place at the upper epiphysis and pushes the bone down into and through the soft parts. When the surgeon does his original operation it is best for him to tell the parents that this will probably take place.

The younger the child, the more frequently will the bone have to be cut off.

Medical Progress.

REPORT ON NEUROLOGY.

BY PHILIP COOMBS KNAPP, A.M., M.D.

[Concluded from No. 18, p. 696.]

THE RÔLE OF EMOTION IN THE GENESIS OF NEUROPATHIC AND PSYCHOPATHIC CONDITIONS.

THE Société de Neurologie and the Société de Psychiatrie devoted four sessions to the discussion of this problem²⁴ at the first annual reunion of the two societies last winter, dealing with the psychological, physiological, neurological and psychiatric problems. Janet discussed the question on the psychological side. The reaction of the individual to any special circumstance may often be determined in advance by his constitution and education; in other cases, although the

reaction is not organized in advance, there is a partial adaptation to the circumstance; in neither case does he consider that there is place for emotion. There are, however, circumstances for which the individual is not adapted by his previous organization, and to which he cannot adapt himself, although he perceives the circumstances and feels the necessity of reacting to them. In these cases, instead of the useful reaction, there are various disturbances of all the functions of the organism. To these disturbances, coming on under these conditions, he gives the name of "emotion." The disturbances are very complex. There are modifications of feeling, giving rise to fear, anger, shame, indignation, discouragement, despair, pain, or feelings of inadequacy, weakness, incapacity, indecision, etc. There are intellectual modifications, systematized agitations in the form of fears, obsessions and the like, or loss of memory and confusion. There are various disturbances of the visceral functions, brouillie, polydipsia, muscular spasm, vomiting, frequent micturition, incontinence or retention, sobbing, hiccup, cough, groans, laughter, palpitation, vasomotor constriction, increased secretions, anorexia, gastro-intestinal atony, choking, smothering, slow pulse, fainting, vasomotor dilatation, hemorrhages and suppression of secretions. There are also motor disturbances, either in the way of motor agitation or inhibition of necessary action. The entire condition may be regarded as a depression of psychological tension with insufficient adaptation and impotent efforts to remedy the condition. Emotional disturbances do not usually come on until after a latent period, and usually affect chiefly one special function. The exciting cause of the emotion may determine what special function shall be affected; the function which was active at the moment may be the one affected, or any function which was previously enfeebled may be affected. If the disturbance has taken a particular form after the first emotion, it may always take the same form after other emotions. The normal individual speedily adapts himself. If the emotion be intense, long-continued and frequently repeated, or if the individual be weak of will and of low psychological tension, the consequences become serious. Vogt, in the discussion, pointed out that the reaction, although inadequate, was not always useless; that an attack of hysterical sleep, for example, might preserve the nervous system from too great excitement. Emotion may lead to active disturbances, often of sudden onset and disappearance, and states of exhaustion, which develop and disappear slowly. Agreeable emotions, too, may excite neuropathic states. Ballet added that slow and long-continued emotions often gave rise to affective conditions. On the physiological side, Hallion showed that, as a rule, there was a definite relation between the intensity of the emotional shock and the reactions which follow. These reactions are often disordered, but, with moderate emotions, the excitement sometimes leads to a general nervous stimulation which aids the organism to adapt itself to the altered circumstances. Stronger

* Paper read and patient exhibited at a meeting of the Denver City and County Medical Society. Sept. 13, 1910.

¹ Three inches of bone were removed.

² New York Med. Rec., June 7, 1890. *Ibid.*, April 7, 1894. *Ann. Surg.*, April, 1900.

²⁴ *Rev. Neurol.*, xvii, 1551, Dec. 30, 1909.