

hours' rest and the ability to take some food once in the twenty-four hours, so that for two weeks, the length of time the tube was allowed to remain, my daily diet consisted of a piece of toast and coffee. This resulted in the loss of 20 pounds in weight in the two weeks.

The withdrawal of the drainage from the bed of the gall-bladder and the tube from the common duct was followed by the immediate relief of these symptoms and rendered the morphin unnecessary. The bowel end of the T tube was found occluded by a stone on its withdrawal, which accounted for the clay-colored stools and the large biliary drainage from the wound. This fact demonstrates the etiologic relationship between the stomach symptoms and the presence of foreign bodies in the gallbladder or common duct or the absence of bile from the intestine, or both.

I have been led to wonder why a tube is ever placed in the common duct. As George Crile said in a discussion of this subject before the Chicago Surgical Society, "Why drain a drain?" If the common duct is patent, the tube is not needed because it makes little difference whether pus or toxic material is drained into the bowel or outside the abdomen. It does no harm in the bowel. If the common duct is not patent, it must be made so before the operation is completed and the tube again is not needed. Then, too, the presence of the tube in the duct is not unproductive of harm. If it fits too tight it may cause necrosis of its walls. It is an invitation to the deposition of cholesterin and bile salts; and, lastly, it is the cause of distressing nausea, and vomiting and pyrosis, which militate against the patient's recovery.

It is in the hope that others who are obliged to undergo this operation may have a more satisfactory convalescence that this personal experience is related.

BUDD VAN SWERINGEN, M.D., Fort Wayne, Ind.

THE PRODUCTION OF SHOCK

To the Editor:—In THE JOURNAL, July 19, 1919, p. 178, Cannon makes the statement in a footnote that "Meltzer (Penn. M. J. 22:129 [Dec.] 1918) has stated that I became 'converted to the theory that the most essential factor in the production of shock is acidosis.' I have never published the idea that there was in the acidosis of shock a primary cause for the low pressure." This is literally true. Cannon has nowhere stated in clear words that he is of the opinion that, in shock, acidosis is the primary cause for the low pressure. But one comes to such a conclusion from various statements which Cannon made in his article on "Acidosis in Cases of Shock, Hemorrhage and Gas Infection" (THE JOURNAL, Feb. 23, 1918, p. 531). On page 532 there is the statement: "From the evidence presented above, the conclusion is warranted . . . that as a general rule the lower the pressure the lower the [alkali] reserve. . . . Cases of blood pressure due to shock . . . have a diminished supply of alkali in the blood. As a general rule, the lower the pressure, the more marked the acidosis. . . . Shocked men . . . can be quickly relieved of their distress by intravenous injection of a solution of sodium bicarbonate." Page 615: "There is evidence that acid or change in the blood in the direction of acidity may have depressive effects on the blood pressure." Page 616: "As acid develops in tissues poorly supplied with oxygen, the blood vessels locally affected by these acids may reasonably be expected . . . to undergo relaxation." I was especially impressed by a statement of Bayliss (J. Physiol., 52, Proc. Physiol. Soc., xviii): "These recent experiments have led me to modify the point of view which experiments previously done in conjunction with Captain Cannon had inclined me to take. They compel me to look on acidosis and its treatment as of secondary importance." This statement implies that Bayliss entertained previously the view that acidosis is the primary cause of the low blood pressure in shock, a view which was formed on the basis of experiments which he carried out together with Cannon. It did not occur to me that two such authors as Bayliss and Cannon, working together, would entertain at the time of their work a different notion as to the primary cause of acidosis and both should nevertheless recommend the intra-

venous injection of sodium bicarbonate for the treatment of shock. My term that Cannon became *converted* was used because I believe that Wright was the first one to recommend the use of sodium bicarbonate.

I did not discuss the correctness of certain theories of shock. It was, as I stated, "an appeal to physiologists . . . to adhere firmly to the careful, critical methods which they are in the habit of employing in their physiologic researches, even if by doing so, as a consequence, the actual yield to medicine may be slow and, perhaps, even small." That appeal was, and still is, well founded.

S. J. MELTZER, M.D., New York.

[NOTE.—The letter of Dr. Meltzer was referred to Dr. Cannon, who replies:]

To the Editor:—From an investigator's statement of facts to draw a conclusion which he did not, then to attribute to him that conclusion, and finally to criticize him for drawing the conclusion seems to me not a good example of adhering to "careful, critical methods." I quite agree that Dr. Meltzer's appeal was, and still is, well founded.

W. B. CANNON, M.D., Boston.

TEETH FORMATION IN EPILEPSY

To the Editor:—I would like to ask through THE JOURNAL, if any physicians have observed a condition which I have found in the mouths of epileptics and also those mentally weak? Having had the privilege, for several years, of seeing the roentgenograms of the teeth of these individuals, I have found that in most cases the apexes of the teeth, if fully formed, were blunted to a marked degree, and in some there was only partial root development.

I make this inquiry, thinking that it may lead to further investigation by others better equipped.

GEORGE B. MCCLINTOCK, D.D.S., Cincinnati.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

TONSILS AS FOCI OF INFECTION

To the Editor:—Kindly advise me where I can get literature on diseased tonsils and their relation to other constitutional conditions.

AUSTIN M. GROVE, York, Pa.

ANSWER.—The following references may be consulted:

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Ingals, E. F.: What Relation, If Any, Have the Fauical Tonsils to Pulmonary Tuberculosis? THE JOURNAL, July 12, 1913, p. 113.