

tetanus, I am convinced that its free use in these extensive shell wounds of the present campaign, as a primary application, would eliminate much of the gas gangrene, as well as the tetanus, providing the wounds are left open, so that subsequent applications can be easily made. It seems to me preferable to the application of pure carbolic acid, in that it produces no eschar.

## THE INTERNAL SECRETIONS.

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### I. HISTORICAL NOTE.

THERE is no subject to-day of more importance to the medical profession than a clear knowledge of the actions of the internal secretory glands in health and disease. The many infections to which the human body is prone, and the numerous accidents and injuries loom large in the thought of those who are called upon to deal with these. These conditions, however, are not always present, whereas the actions, normal or abnormal, of the internal secretory glands are ever present, and doing their work for good or evil. It is well, therefore, at frequent intervals to pass under review our knowledge, or lack of knowledge, on the functions of these very important organs. By this means we take stock and find out wherein our storehouse is lacking, and in what direction it requires replenishing by further investigation, research, correlation and addition; and, equally important, by depletion through the elimination of theories or views no longer tenable. This whole subject is one of vast moment to the practical surgeon and physician; and also to the therapist, as the active principle of these glands are now playing an important rôle in the treatment of disease.

One of the first definite statements regarding these glands comes from the pen of Mueller, in his work on Physiology, in 1844, wherein he said: "The ductless glands are alike in one particular: they either produce a definite change in the blood which circulates through them, or the lymph which they elaborate plays a special rôle in the formation of blood or of chyle. In every instance venous blood and lymph are the only substances which pass from the gland into the general economy." Here are a few bold statements, namely, that blood flows to these glands, and blood and lymph form them, and that they possess no ducts. The assumption is made that they form some products that enter the general circulation and which play an important rôle in the formation of blood