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CLINIC OF S. D. GROSS, M.D., PROF. OF SURGERY.

[Reported for the CANADIAN JOURNAL OF MEDICAL SCIENCE by JOHN H. KOONS.]

[We are indebted to the kindness of Dr. J. B. Roberts, Lecturer on Anatomy and on Practical Surgery in the Philadelphia School of Anatomy, for the following reports by one of his students.]

AMPUTATION OF THE LEG, FOR TRAUMATIC GANGRENE OF THE FOOT.—This man, aged 45 years, was injured by a car sometime previous to his admission, and you can readily diagnose, by the condition of his foot and leg, the pathological process which is taking place. The parts have mortified, the line of demarcation has formed, and the swelling, pain, and concomitant inflammation have abated. There is no swelling in the limb above the ankle joint, but the upper surface of the foot is covered by a black slough, separated by a distinct line of demarcation from the healthy parts. Gangrene may be either traumatic or idiopathic. In this instance, where the condition is due to local injury, the gangrene is said to be traumatic; but when no injury has occurred and the mortification supervenes from some inherent constitutional cause, the term idiopathic is employed as descriptive of the causation. The proper course to be pursued in cases of gangrene is, as a rule, to wait for the line of demarcation before operating. In traumatic gangrene where the mortification is fast spreading, we sometimes find it necessary to amputate at once in order to save life, but generally we wait for the line of demarcation. The proper time to operate, unless contra-indicated, is after the line of demarcation has fully established itself. I purpose amputating this leg a short distance above the line which shows the point at which the mortification is arrested; and I shall do it by the circular method, which I usually prefer in this locality. We apply the rubber bandage, by which the blood is driven out of the limb; and then the circulation is cut off or prevented from returning by the elastic cord firmly fastened around the thigh; the rubber bandage is then removed, and the operation rendered a bloodless one.

The practice of all surgeons is to save as much blood as possible during an operation, since hemorrhage is a serious complication and endangers prompt recovery. I shall make a circular incision above the line of demarcation, and dissect up the skin about two inches. I find that the previous inflammation has so matted the parts together that it is difficult for me to dissect rapidly. I now make a vertical incision in the circular flap, in order to turn it back, divide the tissues down to the bones, and pass a knife between the tibia and fibula to cut through the interosseous membrane. The parts are drawn out of the way by means of the three-tailed muslin retractor, while I saw off the bones. I remove this projecting point, made by the sharp crest of the tibia, which would interfere, perhaps, with rapid union of the flap, and might cause ulceration over its sharp apex.

After tying the anterior and posterior tibial arteries, the parts are now washed with hot water, which you see stops the capillary bleed-