

of poisoning, both in their preparation and in the method of preserving them. In closing the wound he aims to avoid suppuration altogether, and to secure the immediate union of parts. The suture being non-irritating, he freely stiches together all the deeper structures first, wherever they can be approximated, and then the more superficial parts are brought into firm and exact apposition. Instead of the interrupted suture, which leaves the wound gaping at intervals, and necessitates the use of adhesive plaster, he employs the uninterrupted, or glover's suture, which closes the wound throughout, and relieves it of all necessity of additional support. Wherever there is liability of the collection of fluid from the immediate drainage of the surface of the wound, he inserts a drainage-tube, as a temporary expedient to prevent distension of the wound, and possible putrefaction. The advantage of this latter dressing over the former are apparent. No irritant is allowed to enter the wound. The suturing of the deeper structures brings into close and permanent apposition parts that formerly separated.

The continuous suture has great advantages over the interrupted suture, especially when it is taken deeply in the margins of the wound. It not only brings the surfaces into firm apposition at the points where it traverses the wound, but by whipping in the edges, in the parlance of the tailor, where it passes over the wound externally, it relieves us of the necessity of any additional supporting dressings. The advantages of this method of dressing, therefore, are great, and, indeed, vital, in the effort to secure immediate union.

The final dressing of the wound formerly was the adhesive plaster and the bandage for support and retention. The plaster was never rendered aseptic, and by its close relations to the wound was dangerous. The bandage was usually of unbleached muslin, and had no special cleansing or preparation for the wound. It may not have been harmful, but it added to the risks of infection. Now, the wound once closed, is protected from external infection by dusting the surfaces with iodoform. Then pads of disinfected materials, with iodoform sprinkled between the layers, are applied; sometimes over a large area around the wound, and in considerable numbers. The whole is retained by bandages of disinfected materials carefully preserved in a disinfected atmosphere. The addition of these external dressings, prepared with so much care, and adjusted with so much painstaking, has been very much criticised. It is possible that they are often unduly multiplied, but the results justify the faith which so many surgeons have in them.

In speaking of the closure of wounds, it should be stated that while the older surgeons did not close many wounds, as those of amputation, surgeons now close all such wounds. This difference in treatment is one of the most striking features in the comparison of the surgery of the present time

and that of a decade past. The former surgeon prepared the wound for suppuration, the later surgeons dressed it as for union without suppuration. Both uniformly realized their expectation.

If we follow the wounds treated by these two methods from the first to the last dressings, the contrast is remarkable. If the wound were large, on the second or third day the fever formerly began, announcing suppuration, and from this date, for weeks after, the dressings were changed daily, one two, or three times. The pus-basin, the irrigator, and the dressing-forceps were in constant demand. In many wounds the suppuration was so profuse that vessels were placed under them which received the continuous discharge. The fever generally ran high, with consequent exhaustion and depression of the patient. Septicæmia, as we now understand it, was the intermediary fever of that day, and was regarded as a usual, if not a necessary, sequel of all considerable operations. Following this fever, or rather insidiously engrafted upon it, were chills, fever, and profuse sweatings, now recognized as pyæmia, but then regarded as only another stage of surgical fever. Few indeed survived this fever; and in the diffused or metastatic abscesses revealed at the autopsy the surgeon discovered a cause of death quite beyond his power to prevent, control, or even comprehend. The vast change in the progress of operated cases during the past ten years can scarcely be realized. Surgical fever with all its disastrous variations, is, in practice, rare in Bellevue Hospital. Pus, as an outcome of surgical operations, is a thing of the past. On one occasion last winter, a teacher in one of the medical colleges sent to the wards of Bellevue for a specimen of pus for exhibition to his class, but none was to be found in the four surgical divisions of the hospital, although there was at that time an unusually large number of wounds and operated cases under active treatment. The wound is now dressed with no expectation that fever will rise, or that suppuration will occur, or that the dressings will require renewal on account of the presence of pus. The patient sleeps and eats well from the first, and the surgeon removes the dressing, often only to find the wound united. This remark is true, not only of incised wounds, but equally of wounds of amputation, excision, ligation of arteries, etc.

If now we turn from this review of the several stages of operations in general to particular operations, we find many curious instances of the remarkable progress of practical surgery in this hospital. It must be understood that in every operation all of the general precautionary measures already described are scrupulously taken and carried out, and, therefore, only special differences in treatment will be mentioned.

Compound fractures were formerly regarded as proper cases for amputation, if the local injury exceeded a single fracture, with a simple penetration