

applied. But in a simple fracture Nature should not be called upon to form this splint; Art should apply it, and thus enable Nature to immediately undertake the work of repair. The resources of Nature with regard to healing are wonderful. The observant surgeon and physician will notice them in many ways. The adhesions which form between the layers of peritoneum may justly be regarded as an untoward event, so far as the future comfort and efficiency of the patient are concerned; still are we not to look upon such adhesions as a method of Nature to secure rest of the intestinal tract, and thus remove the cause of continued inflammation, whatever may have been the primary cause of the disease. And when the *plura costalis* and *pulmonalis* are glued together by inflammatory lymph, and the pericardium becomes adherent to the heart—although in many respects disastrous—must we not, nevertheless, recognize the only way (and being the only one a wise way) by which a degree of rest is obtained for organs whose functions render absolute repose an impossibility. Continued inflammatory action would result in death, but it is arrested by Nature in the way stated, and life is preserved although crippled. I need hardly stay to point out a fact so apparent that in many cases a timely course of medical treatment would have rendered this work of nature unnecessary; and life, not only would have been preserved, but the body retained in its original perfect condition. One more illustration is found in the process of cure by Nature in aneurisms, and another in the several steps whereby a divided artery is effectually closed.

The powers of Nature are often manifested not merely to preserve life and function, but where function has been destroyed, or impaired, to repair and restore. The power to restore lost parts is limited, but the power to recover function is far greater than generally supposed. Even while the disease is in progress, we often find efforts put forth to limit the loss of, or preserve function. Take, for instance, disease of the joint. During the course of the disease, while active destruction of tissue is taking place in the joint, Nature will be throwing out new material out of which to form a new structure, which will in some degree become a substitute for that destroyed. Again, in case of excision of a joint, what do we see taking place? If the two bones are retained for a sufficient length of time in a state of immobility, firm union follows; and this, in many cases, is all that can be expected. But in some cases Nature attains a far higher result. A stiff limb is better than an artificial one, but to have the limb not only

saved but its functions preserved is an achievement of Nature, often witnessed by the surgeon. This higher result after resection, is perhaps more common than is supposed, and I have seen cases where it took place in spite of the effort of the surgeon to obtain ankylosis. Again, while it would be commonplace to refer to the fact as often witnessed, that the surfaces of an incised wound, when retained in contact in a state of rest, will rapidly and enduringly unite; it may not be so destitute of interest to notice a subsequent event. When a wound has healed, which may be in a few days time, the part is restored to its ordinary usefulness. This might be deemed sufficient; but Nature will do more than this. Life has been preserved, the member has been preserved, the functions have been perfectly preserved, what more? Unsightliness will next engage the attention of Nature. Beauty and harmony of symmetry must likewise be restored. If the part be hidden by apparel, of course this is a matter of no importance, but if exposed, especially if about the face, then the importance may be of considerable magnitude. Nothing, in fact, to some minds, can be more distressing than to have an unseemly scar upon the face, seen by all. Now, towards the removal of cicatrices the surgeon can do little, or nothing, but Nature is not so impotent. Surely, although slowly, the scar wears away, and in time, may disappear: nay, often does. But whether a total removal takes place or not, the effort of Nature to reach that end, only ceases with life itself. In this continued endeavour of Nature, the surgeon fortunately can do nothing to retard the work, short of violence; but he may, and often does more to prevent primary union of wounds than he does to assist.

It is, however, in severely crushed, or torn wounds that an additional and exceedingly wise course is pursued by Nature, for the purpose of saving and restoring tissue; around the wound is a certain portion of tissue more or less injured, some of it will, or may recover; while some of it must die. Where the boundary line is to be drawn Nature must decide. It is she who will examine the molecular parts, and determine which can, and which cannot be restored, which portion shall be resored to vitality, and again enter upon the active duties of molecular life; and which shall perish and be cast off. And, as Nature will in time amputate a whole limb in a palpable manner, so will she, although impalpably, sequestrate the doomed tissue around the wound and at the same time furnish a vehicle to carry off the detritus. The out-flowing