the articulation, may at another be safely applied. The general health should constitute an important guide as to endeavouring to restore flexibility to a partially-ankylosed limb. After severe phlegmonous or rheumatic inflammation of a joint, which has not terminated by resolution, but by one or other of the "terminations of inflammation," the system having been depleted, or the morbid predisposition removed, by proper regimen, or by antiphlogistic and other remedial agents, we may usually, within a few months, endeavour to remove the resulting ankylosis; but after strumous disease of an articulation it is prudent to wait a longer period, or until a favourable change in the diathesis of the individual has taken place. Sometimes, in such cases, we may be compelled to wait even several years before attempting to restore the usefulness of the member.

CASE OF
TALIACOTIAN OPERATION,
WITH REMARKS.

By ROBERT STORKS, Esq., Surgeon.

(Read before the Medical Society of London,
Oct. 9, 1843.)

OCTOBER 10, 1842. I was requested to-day by my friend, Mr. Robinson, of Gower-street, to see George Culver, ætat. 38. He stated that in 1835, whilst lifting a wheelbarrow, he received a severe blow across the nose, which at the time stunned him. The immediate effects of the accident quickly passed away; but on different occasions he felt slight pain about the nose and forehead, not sufficient, however, to alarm him. In 1836 the pain, swelling, and fetor, which had gradually appeared, induced him to seek medical advice, but without relief. In 1837 several of his teeth fell out, and the apex of the nose became ulcerated. At this period he describes the pain and stench as insupportable. In 1840 he met with an individual who was in the habit of using an arsenical preparation for the cure of cancer, from whose representations he was induced to consent to the application of the plaster, which produced a large slough, including a portion of the whole thickness of the right side of the upper lip; the sores left after the separation of the slough healed, leaving a considerable contraction and eversion of the upper lip, exposing the mucous membrane.

The stench and occasional attacks of pain continued, and in 1841 an abscess formed near the inner canthus of the left eye, through which a small piece of necrosed bone was discharged. In this year he became the patient of a dispensary, but derived no benefit from his attendance. He has continued in this state up to the present time, unable to obtain employment in consequence of the

fetor from his nose, and his disfigured appearance.

When I first saw him the whole cartilaginous portion of the nose was sunken, and partially destroyed; the nasal bones were entire; and near the inner canthus of the left eye was a cicatrix produced by the discharge of a portion of bone. The upper lip, to the right of the mesial line, was drawn up, and the mucous membrane exposed, by the contraction following the use of the arsenical preparation previously alluded to.

On lifting a flap which overhung the nostrils, formed by the remaining piece of cartilage, a small portion of the columna, about the thickness of stout twine, remained, which was the only vestige of the septum dividing the nasal fossæ; the stench from the nostrils was unbearable, and various portions of bone in a necrosed condition (not however, loose) could be felt with the probe.

On looking into the mouth, all the teeth in the upper jaw, from the first bicuspid on the left to the second molar on the right side, were found absent, and a small fistulous opening behind the sockets of the central incisors, and corresponding to the union of the horizontal plates of the superior maxillæ, was visible, through which a constant discharge of pus oozed; the cicatrix of an ulcer on the velum is to be seen.

His general health is good; he denies any syphilitic taint; is regular in his habits, and is willing to undergo any suffering to be relieved from his loathsome malady and the consequent deformity.

He was directed to use a nitric acid lotion with a syringe, and on various occasions pieces of bone, in a state of necrosis, were extracted, which appeared to be portions of the vomer and inferior turbinated bones. In consequence of the large size of some of these pieces it was found necessary to divide what remained of the columna to make an aperture sufficiently large to allow of their removal.

January 25, 1843. The fetor and discharge having quite ceased, and the parts within having appeared quite healthy during the last three weeks, I resolved, with the concurrence and kind assistance of Mr. Fergusson, to perform the Taliacotian operation. The patient being seated in a chair, and a piece of soft thick leather being cut into the size and shape required to supply the deficiency (due allowance being made for the subsequent contraction), it was laid upon the forehead, and its outline traced with ink. A scalpel was then carried down to the pericranium in the course of these lines, and the flap thus circumscribed dissected off the forehead, care being taken not to interfere with the pericranium, and to carry the incisions *deep* at the root of the nose, so as to ensure a sufficient vascular supply in the flap. The hæmorrhage (which was free)

being checked by the application of cold, and exposure of the cut surfaces to the air, the remaining steps of the operation were proceeded with. An incision in the course of the line of suture between the two nasal bones was made from just below the neck of the flap to their extremities, which was then made to diverge on each side, in the course of the margins of the nasal fossæ, resembling in form an inverted Y. A portion of the integuments, two or three lines in breadth, was next removed from each of these lateral incisions. I then attempted to loosen the upper lip from its adhesions to the superior maxilla (without interfering with the mucous membrane of the mouth), to enable it, if possible, to resume its natural position. Very little good was, however, effected by this proceeding.

The bleeding having ceased, the flap was twisted from right to left, and neatly approximated by five points of suture to the wounds on the face. The new nose being raised by some lint, a point of suture was introduced into the lower part of the wound on the forehead, water-dressing applied, and the patient sent to bed already much improved in appearance. No vessel required the application of a ligature.

25. Nine, p.m. The flap was warm and in good apposition; some oozing of blood from the forehead; general fever.

26. Had not slept for fear of disturbing the parts; general fever less; flap adherent and warm; wound on the forehead had contracted considerably. Two straps were applied to the wound on the forehead, warm water-dressing to the nose.

28. Removed the sutures; the flap was found to be firmly adherent.

29. There had been some hæmorrhage from the lower part of the wound on the forehead.

30. Removed the lint from the interior of the nose; granulations springing up; except where a small thin slough has formed, it retains its shape without support. Re-introduced the lint.

Feb. 5. Slough separating; wound on the forehead covered with luxuriant granulations.

11. The slough had separated; new nose becoming firm; supported the apex by straps brought up to the forehead.

22. The wound on the forehead nearly healed; the temperature of the right cheek, 85°; the nose, 83°.

March 20. The wound on the forehead and the interior of the new nose having been quite cicatrised for some days, I divided the neck of the flap by passing a probe-pointed bistoury beneath it and cutting upwards; a triangular portion of the integument beneath being then removed, the slip was laid down and retained by three points of suture. One small vessel, evidently much

enlarged in calibre, was divided, and furnished blood freely.

21. The stitches were removed, adhesion had taken place.

30. The wounds were completely healed.

June 7. As the new nose had now acquired a free circulation for a considerable time, I directed my attention to the introduction of a septum; the removal of some of the old feature, which plugged up the nares; the bringing forward the point of the new nose, which had become much contracted during cicatrisation; and the removal of the unseemly scar from the lip. To effect these varied objects I commenced the operation by making an incision just beneath the nose and parallel with the commissure of the lip. This enabled me to introduce the point of the scalpel and dissect off the cheek, on each side, from the superior maxilla, and thus render the apex more moveable. A straight probe-pointed bistoury was then passed into the nares, after a puncture had been made, and such portions of the old feature as interfered with the passage scooped out. Three radiated incisions, from within outwards, were made, a quarter of an inch in length, in the apex of the nose, care being taken not to divide the skin; this allowed of its further expansion.

The upper lip being then put upon the stretch, a bistoury was thrust through it, and a portion, three-fourths of an inch in breadth, separated, including nearly the whole of the cicatrix produced by the charlatan previously referred to. The divided lip was brought into apposition by two needles with the twisted suture, and the separated portion (after its free edge had been made raw) was approximated to the radiated incisions made in the apex of the new nose by a needle and the twisted suture. The lip was much improved by this operation.

The portion of lip raised readily united, and the whole organ was thus restored. It was found necessary to keep pieces of elastic bougie in the nostrils during cicatrisation, to prevent their contraction, and to pare down the new columna from its superabundant size.

The accompanying drawings are faithful illustrations of my patient's former and present condition. He is not, however, a little indebted for his improved appearance to Mr. Robinson, who kindly supplied the deficiency in his mouth by some artificial teeth.

Although the Taliacotian, or, more properly, the Indian, operation for the restoration of the nose has been frequently performed since its introduction by Mr. Carpue in 1816, there still seems an apathy about English surgeons to the cultivation of that department of operative surgery which can boast of its object *not being the mutilation* of the body, but the restoration of lost parts. Although all rhinoplastic operations must be

more or less modified by the condition of the patient or the fancy of the surgeon, still, there are some rules which admit of general application to this class of operations, and are, therefore, well worthy of attention.

The first and great principle to which the surgeon has to attend in the cases that are really successful, is the necessity of making the portion of skin intended to supply the deficiency of such a size that it may be considerably larger than the gap to which it is intended to be applied. This was particularly inculcated by him who we may look

upon as the originator of the art, Taliacotius, and modern experience has fully borne out the necessity of the advice. It is, indeed, surprising and inconceivable to one who has not witnessed it, how a portion of skin, when thus raised, becomes increased in density and diminished as to length and width; and it is my conviction that the operator, unless he, indeed, runs into extremes, will never err by making it *too* large; for what at first may appear an unseemly nose ultimately becomes, if not of the Roman or the Grecian cast, at all events one not disproportioned to the other features.

Surgeons have varied the method of performing the different steps of this operation, some insisting that the incisions intended for the reception of the flap should be made first; others, that the portion of skin intended to supply the deficiency should be raised, and the incisions necessary for its adaptation should form the latter part of the operation. Although these matters are, perhaps, of little importance in themselves to the young surgeon (each plan having its advantages and disadvantages), they are very perplexing. I was induced to adopt the latter plan in the case just alluded to for the following reasons: first, that the most painful part of the operation was thus proceeded with at once; secondly (and the most important), that, knowing thus definitely the size and form of the flap, I was enabled the more accurately, to adapt my incisions on the face to the raw surfaces it presented for adhesion. To my mind this latter argument is sufficiently strong to induce me, in any future operation, to adopt this course of proceeding.

It is recommended by several authors that the remains of the old nose should be pared down, and those likely to interfere with the future symmetry and usefulness of the feature removed. This, with the greatest deference for the distinguished authorities alluded to, I cannot but think a practice open to objection. Should the operation fail, and the flap slough, the patient is left in a much worse condition than before the operation; should it succeed the ruins of the old feature act as a considerable support to the nose, until it has become sufficiently consolidated to support itself; and, should it become necessary, they are easily removed at a subsequent period of the treatment. I would beg to direct attention to the form of incision (an inverted Y) used in this case, which, while it allowed a large surface for the adhesion of the flap had the operation failed, would have left the patient in as good a condition (with the exception of the cicatrix on the forehead) as before the proceeding.

With regard to the adaptation of the flap to the incisions on the face, all seem to agree that sutures are the best means of ensuring their accurate apposition. Respecting the form of suture surgeons have differed; none

will, however, be found so easy of application in this situation, or likely to answer the purpose so well, as the common interrupted suture.

I cannot but agree with Dr. Zeis, of Dresden, who, in his "Manual of Plastic Surgery," published at Dresden, in 1838, is desirous of impressing upon the surgeon's mind the necessity of introducing a suture wherever the parts are not in accurate contact, and dissuading him from any limit as to the number he should apply. For the formation of the septum from the lip we are indebted to Dr. Dieffenbach and Mr. Liston, a method possessing many recommendations over that practised by the earlier operators, of forming the septum from the forehead. In the present instance many advantages were gained by adopting the proceeding of the last-named authority, among which the removal of the large cicatrix from the lip, formed by the arsenical preparation previously alluded to, was perhaps the most prominent.

As the healing process progressed the point of the new nose became much depressed, a circumstance of not unfrequent occurrence, I believe, during cicatrisation. No method of dressing that I adopted prevented this, and by the time that the introduction of the flap was agreed upon, partly from the remains of the old nose, and partly from this contraction, the aperture of the nares was completely blocked up; some of the remains of the old nose, however, were readily removed, and the point was brought forward, by adopting a proceeding employed by Mr. Fergusson, in a case given in his "System of Practical Surgery," p. 453, which is a kind of subcutaneous dissection of the cheeks from the superior maxilla, that enabled me to bring forward the apex, and keep it in that position by the introduction of the septum.

At no period of his cure did this man refer the sensations produced by touching the new nose to his forehead; at one time, on the *left* ala being irritated with a pen, the painful feelings thus produced were referred to the *right side* of the feature. This has, however, gradually disappeared. The senses of smell and taste, which he had entirely lost during his illness, have been regained since his cure. Although there is no pretence to any novelty in the proceeding adopted in this case, there are still many points of interest connected with these operations, and the relief which they afford to the patient is a matter of much gratification to the surgeon and an honour to the art. Many individuals left to endure all the misery of wounded feelings, and (as in the present instance) the loss of the means of support, have been thus made comparatively happy, and I cannot but express my surprise at finding an eminent modern authority describe the

result of such an operation as "more curious than useful," and declaring that "the substitute is more disagreeable than the deficiency."

ON ANNUAL VITAL PERIODS,

BEING A FIFTH CONTRIBUTION TO VITAL PROLEPTICS.

By T. LAYCOCK, M.D., Physician to the
York Dispensary.

IN my last communication (page 826, vol. ii., 1842-43)* I referred to the pathological influence of the seasons, and compared certain meteorological changes with pathological data. I wish now to state distinctly that I do not consider this the only or the best mode of attaining to a knowledge of the influence of the seasons on vital action. Our researches should be founded on physiology rather than on pathology; we must ascertain the annual cycle of normal action before we can correctly lay down that of pathological phenomena.

We know that quotidian vital periods are regulated by what may be termed the *habit of recurrence*, as well as by meteorological influences. A tendency to the performance of a physiological act, done at a given hour in one day, occurs at the same hour on the next. This is a fact I should suppose known to and observed by every one. Now, there is really the same tendency to the recurrence of annual periods, although it has not been so extensively noticed. The migrations of animals present some curious illustrations of this fact. The exact punctuality with which the storks return to their summer quarters at Smyrna is noticed by Mr. Hamilton (Researches in Asia Minor, vol. i., p. 70) as a curious fact; they generally appear on the 9th of March. "On my way to the fort of Aziz Khan, the Hazara manager of the district for Dost Mahomed," writes Mr. Moorcroft, "I passed a small pond filled by a stream from a holy spring, which was so full of trout as to baffle description or credibility. They were held sacred, and were exceedingly tame. On the 21st of March to a day, according to the report of the people, the fish desert the pond for the rivulet that waters the valley." (Moorcroft's Travels, edited by Professor Wilson, vol. ii., p. 382.)

The dates of the reappearance and departure of migratory birds which visit us, correspond very closely year after year. Swifts, for example, are nearly all gone by the 10th of August. The recurrence of disease at exactly annual periods has been noticed by various writers, and instances have been

* For the four preceding papers of Dr. Laycock, see LANCET, vol. ii., 1842-43, pages 124, 160, 423, 929.