to discharge them as absolutely free from infection; and that it is only in exceptional circumstances I avail myself of the services of lodging-house keepers.

Before I pass on from the subject of special accommodation for convalescents, the want of which every one having the management of an hospital for infectious diseases must often have felt, I should like to draw attention to another requirement almost equally urgent; *i.e.*, special accommodation for those who, though not known to be infected, have been contiguous to infected patients, and are thus (temporarily, at all events) objects of danger. So far as I have been able to ascertain, Glasgow is the only town where provision for these possibly dangerous subjects has been made. The accommodation afforded is simply a large lodging-house, called the Reception House; and in it families from crowded localities are boarded, after one or more of their members have been removed to an infectious diseases hospital. Remaining in the infected premises would be dangerous to them, and they might prove sources of danger to others. Quarantined, as it were, in the Reception House, they are under observation and out of harm's way; the fumigation of their clothes and the premises from which they were removed can be at once proceeded with; and they themselves can be bathed and disinfected. It occurs to me that an establishment of this kind might also be utilised for doubtful cases. Men and women certified as suffering from fever, but quite innocent of it, occasionally find their way into fever-hospitals; and this is especially liable to happen during times of epidemic disease, when hospital accommodation is most needed. If such cases could be sent to a reception house, and there kept under observation as long as might be deemed necessary, it would prevent some possible ill effects of incorrect diagnosis, and relieve managers of fever-hospitals of a frequent cause of anxiety.

Apologising for this brief digression, I return to my text. I have said that, to exercise the necessary control over fever-patients during the period of convalescence, the sanitary authority must have information, powers, and accommodation. Only the few towns I have mentioned have regular information of cases of infectious disease; none have efficient powers to insist on isolation; while the want of special accommodation for convalescents is not even recognised. Compulsory information of cases of infectious diseases, and powers to deal with them to prevent their spreading disease, can only be obtained by going to Parliament. Without losing sight of the fact that it is desirable to abridge somewhat the liberty of convalescents, as we already abridge the liberty of others who from various causes are dangerous to the community, and that powers to effect this will have to be obtained sooner or later, let us see if there be not some practical suggestion to be got from the consideration of the subject. Put it in this way: Convalescents from infectious diseases are a daily source of danger. Is there anything which we, as medical officers, can do to minimise this. I think that there are two things, at least, that we can do. 1. We can be more rigorously particular in refusing to discharge infectious patients from hospital till absolutely free from infection; if necessary, setting apart one or two wards for the sole use of convalescents, or adding a special convalescent ward. A garden will be found of great use in helping the hospital management to retain unwilling convalescents. 2. We might issue printed rules having reference to the management of convalescents. These could be sent out as circulars to all ratepayers, and perhaps displayed as posters; and should state simply how isolation is to be effected, and give explicit directions as to bathing, anointing, and exercising the patient, cleansing and airing his room, wearing apparel, etc.—matters on which the public are not at present sufficiently instructed.

THE SURGICAL TREATMENT OF EPISTAXIS.

By EDWARD HAMILTON, M.D.,

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COMMUNICATIONS on the subject of epistaxis, which have from time to time appeared in the pages of our JOURNAL, seem to elicit the fact that there exist in the minds of busy practitioners much doubt and misconception as to the best plan of dealing with this emergency, so often a source of anxiety and danger. I am induced to offer a few practical remarks relative to it, as it occurs to me that the simplest and most effectual method of arresting this hæmorrhage is not sufficiently known, nor appreciated as it should be. It is not my intention to discuss the nature, causes, or constitutional treatment of epistaxis; they are sufficiently detailed in various systematic works on medicine and surgery, in many of which the subject is thoroughly exhausted. Let us assume that the nose is freely bleeding, and that it is imperative that the surgeon

should arrest the flow of blood without loss of time. We may also assume that various popular remedies have been tried, and tried in vain—they are known to every tyro. The surgeon may absolutely be summoned for the especial duty of plugging the posterior nares, as I was myself some time ago, by a respected general practitioner in this city, who sent for me late at night, and entreated me to carry out this proceeding and no other, as he had minutely detailed the steps of this operation, and did not wish that his patient (a highly nervous and sensitive lady) should be disappointed, having screwed up her courage to the point of endurance. Should the surgeon feel disposed to adopt this proceeding, let him avoid putting his trust in surgical toys like Bellocq's sound. I have seen this instrument more than once produced from the pocket-case with great formality, and, when introduced into the nostril, the thread of the screw was found so worn and imperfect that it failed to catch. The watch-spring coming forward into the mouth could not be withdrawn, so that the instrument became quite unmanageable and useless, and was flung aside with great disgust. And I have witnessed, scraping of the lining membrane of the pharynx, and much pain, and impatience caused by vain attempts to use this appliance, even when perfect as an instrument. Further, it is not always at hand when required; the sooner, therefore, the surgeon accustoms himself to act without such unreliable assistance, the better for himself and his patients.

Simple, indeed, is the apparatus required for plugging the posterior nares. A foot of wire, to be found now-a-days in every wardrobe, from the kitchen to the garret—that by which mineral water-bottles are secured—answers the purpose admirably. Should a supply from either of these sources fail, the bell-wire may be pressed into the service for the nonce. A coil of thin copper-wire may be carried with advantage in the smallest pocket-case, and will be found a very useful addition to it for this and many other purposes in practical surgery. Let a loop be twisted on the end of the wire, as large as will pass through the nostril; when it appears below the soft palate, it may be conducted forward into the mouth by a dressing forceps, the finger, or a hook improvised on another piece of the same wire. The ligature, being now secured to the loop, may be drawn through the mouth, pharynx, and nasal fossa, the plug fastened to it and fixed in position in the usual way, and the operation completed. This proceeding is, however, at best most troublesome, clumsy, distressing to the patient, and by no means free from risk. A well-known case in Dublin was followed by erysipelas of the fauces, causing fatal oedema of the glottis. In our periodical literature, we find recorded such consequences as tetanus, secondary hæmorrhage, the loosened plug fatally entangled in the glottis, besides the intolerable annoyance to the patient of the ligature in the mouth. It is obviously desirable to find some simpler mode of dealing with this emergency; and I have no hesitation in asserting the proposition that plugging through the anterior nostril is all sufficient, if it be carried out with thoroughness and efficiency. Mr. Bryant, whose last edition may be regarded as the latest exposition of British surgery, recommends the use of Bellocq's cannula, and gives a wood-cut of the instrument. Speaking of plugging the nose, he says: "To do this effectually, some skill is necessary to do it; otherwise, it is useless and injurious. *To plug from the anterior nares alone is trifling with the hæmorrhage.*" To apply the author's own quaint remark, there is the way not to do it as well as the way to do it—a remark as applicable to plugging the anterior nares as to every other surgical procedure.

The plan of treating epistaxis which I would suggest cannot claim any merit for originality, as I only wish in this paper to call attention to what appears to have escaped recollection. It is a modification of that proposed, so long ago as 1862, by the late Josiah Smyly, of respected memory. His own description of it may be found in a very able and exhaustive memoir, on the subject of epistaxis, by my friend Professor Macnamara, in the *Dublin Quarterly Journal* for February 1862. I take a strip of linen material, three feet long; the width will be in proportion to the fineness of the texture; the coarser it is, the narrower it may be. We may take one inch wide as the standard. This may be soaked in some domestic astringent at hand: tea, alum-water, saturnine solutions; oil may be used, but it should be sparingly, as, although it greatly facilitates the introduction of the material, yet, as it interferes with the imbibition of moisture, it prevents the subsequent expansion of the plug, which is useful in checking the escape of blood by its compressing effect. The best of all fluids, if at hand, is a saturated solution of gallic acid in glycerine, which may be kept for the purpose. This has the advantage of combining astringency and styptic quality with lubrication. This strip of linen should be regarded as consisting of three parts, each intended for its own special position in the nostril. The end of the first portion should be grasped in the blades of a dressing forceps, and conveyed along the floor of the nostril to the posterior termination of that cavity; the remainder, about one foot, should be

rapidly "paid" by the finger and thumb into the cavity of the nostril. The solid mass thus formed should be forced along the floor of the nose, first with the little finger, and then with the dressing forceps or a pencil, until it is found to occupy the posterior nostril, and distinctly felt in it by the finger, hooked round the soft palate. This is far the most important part of the entire proceeding, being, as it were, the basis of operations. The second portion should now be paid into the nostril in the same way, and pressed by the finger and forceps into its position—the roof of the nose. The third and last portion should be pushed into the nostril, so as to occupy a position in front of and below the other two, and, being caught within the edge of the alar cartilage, will usually retain its position without trouble. I think it desirable that the material should not be cut, but retained as one continuous piece for the facility of subsequent removal; but too much care cannot be taken in disposing of the first portion. The nostril being thus perfectly and thoroughly packed, every portion of the lining membrane is steadily and firmly compressed, and the escape of blood is rendered physically impossible. In the course of about forty-eight hours, the plug begins to loosen, the end falling from the nostril. Directions should be given to the nurse or attendant on no account to pull it, but simply cut the projecting part on a level with the nostril, according as it drops, until the entire plug comes away. For some years past, I have adopted no other mode of plugging the nostrils; and many of my professional brethren in Dublin, who have practised it, have found it simple, effective, and satisfactory. There is little fear of the plug remaining too long, as, when the natural secretion is restored, it becomes quickly loosened and unpacked, and falls away through the anterior nostril.

CASE OF ULCER OF STOMACH, PENETRATING INTO THE LIVER.

By J. INGLEBY MACKENZIE, M.B. Cantab., Rugby.

THE subject of the following history was W. L., aged 56, ill-nourished and rather emaciated in appearance, with sharp pinched expression of face. His skin was dry; his pulse feeble, regular, 60; his tongue was covered with whitish fur. His appetite was small. The bowels acted but seldom—then with difficulty. He slept very badly. The abdomen was distended. He complained chiefly of pain in the right hypochondriac and epigastric regions, increased by pressure and followed by sickness. He had been subject, he said, to "sick attacks" for years. I had attended him in one of these, in the temporary absence of my predecessor, about four years since, but had lost sight of him professionally up to March 10th, 1879, at which date I was sent for to attend him, and these notes were taken. The treatment consisted in small doses of nitro-muriatic acid, which afforded some relief to his pain; also small doses of ipecacuanha wine to allay nausea, with an opium pill to give sleep, and a wet compress over the seat of pain. He improved on this plan so much that, on March 22nd, he was able to go out and superintend a small farm he occupied for amusement; and I heard nothing of him till, on April 10th, an indigestible supper reproduced all the old symptoms, but in an aggravated form. The former treatment was resorted to, but unsuccessfully. All solid food was strictly forbidden; his diet consisted chiefly of arrow-root and brandy, with occasionally mutton-broth, thickened with ground-rice, and an opium pill at night. The treatment was continued with varying success up to the middle of July, when, talking the case over with a medical friend who was staying with me, he suggested the treatment proposed by Dr. Balthazar Foster of Birmingham, in his *Clinical Lectures*, viz., giving the stomach perfect rest, and supplying nutriment *per rectum*. This plan was adopted for two days; but, on the morning of the 10th, I was hastily summoned to find him moribund—no change having taken place to warn his friends in the least.

Post mortem Examination, eight hours after death.—The body was very anæmic and emaciated. On opening the abdomen, a long distended stomach concealed all the other viscera; the walls were very thin—so much so that the scratch of a finger-nail inadvertently pressing on them instantly ruptured them, disclosing the contents to be a dark grumous, coffee-ground like fluid, in quantity about two and a half pints. On carefully raising the stomach, it was found to be attached to the left lobe of the liver. The stomach was emptied and opened along its greater curvature, and a large ragged ulcer, opening direct into the liver, was found near the pyloric end of the viscus. On passing the index-finger about three inches into the cavity in the liver, it was found to contain the same grumous fluid as did the stomach, the edges of the ulcer being firmly agglutinated round the orifice, forming a continuous structure. The cavity in the liver had no wall, but was apparently a "bur-row" caused by the action of the contents of the stomach. Just short

of the pylorus (the fibres of which were considerably thickened) was discovered a pouch or *cul-de-sac*, one inch in depth, apparently in the inferior wall of the stomach, and containing similar fluid to the stomach. The intestines were shrunken in calibre, and contained small bullet-like faeces. The walls of the heart were thin, and the muscular fibres pale and anæmic. There were some pleuritic adhesions of old standing.

REMARKS.—There can be no doubt that the ulceration into the liver was an effort of nature at repair. The rupture must have occurred at some considerable distance of time from the patient's death, as the edges of the ulcer were so firmly adherent to the structure of the liver. How long, it is impossible to define. The thickening of the fibres of the pylorus was not so great as to lead one to suppose that that alone was the cause of the vomiting. The *cul-de-sac* just short of the pylorus was also a special feature in the case, leading me to think it not unworthy of record.

SURGICAL MEMORANDA.

DECALCIFIED BONE-TUBES.

IN two cases in which drainage-tubes were inoperative, I have lately employed the newly introduced (Neuber's) decalcified bone-tubes; and I regret much to have to report that the hopes of finding an efficient drainage-tube, which would allow more unfrequent antiseptic dressings, have not been verified.

In the first case, amputation of the thigh for disease of knee-joint of nine years' standing, in a female aged 37, I employed three tubes: one, inside, of the usual India-rubber; two, one of them on the outer side and one midway of the flaps, of the new decalcified bone. For two days, all looked well; but, on the third and fourth day, I found the India-rubber tube acting perfectly, while the other two were partially eroded, absolutely flattened, collapsed, and blocked. Hence arose retention of serum between the flaps, suppuration excited by the tension so produced, and a tedious recovery, not yet quite complete. In the second case, a large bursa over the patella was punctured, with the usual antiseptic precautions, and a Neuber's tube, of the smaller size, employed. But here, again, in twenty-four hours the tube had ceased to be an efficient channel of exit, and the bursa was distended with serum—leading, as might be expected, to a slower repair. India-rubber drainage-tube, often very efficient, is sometimes, from position or pressure, flattened, and so is then of little value. I hope to make a trial shortly of some tubes made from gutta-percha.

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TWO CASES OF FRACTURE OF THE SCAPULA.

AS it is of importance on all occasions to add to surgical statistics, I am desirous of bringing before the notice of the profession the two following cases, the first of which is of rare occurrence, and of the second there are very few authentic instances.

CASE I.—On March 12th, David W., aged 42, carter, fell out of his spring-cart to the ground face downwards, the wheel passing over his shoulder. He complained of great pain about his shoulder, and of being unable to raise his arm. On being stripped, not much deformity was discernible, except some swelling at the back of the scapula. There was no injury to the shoulder-joint; but the scapula, it could distinctly be detected, was fractured transversely one inch below its spine. The treatment used was a gum and chalk shoulder-cap, extending from spine to sternum, with a pad in the axilla. This casing was removed on April 19th. Osseous union was found to be firm and complete, with no deformity beyond very slight angularity of union.

CASE II.—Mary Jane G., aged 16, on April 11th was swinging on the shaft of a hand-cart, and fell on her right shoulder. When stripped, but little swelling was discernible; the breadth of the shoulder, however, seemed increased, hanging a little forwards, outwards, and downwards. As she was a thin girl, the anatomical bearings could be very clearly defined. On manipulation, the head of the humerus could be made to perform all movements in the glenoid cavity, and, by fixing the scapula and firmly grasping the shoulder, crepitus could be obtained, most distinctly attributable to the fractured neck of the scapula—the fracture extending from the inner side of the base of the coracoid process to the glenoid cavity. The deformity was easily reducible by supporting the elbow and drawing the shoulder gently back, but it instantly returned when the support was relaxed. The treatment I adopted was somewhat similar to that in the former case. A good sized pad was placed in the axilla, the arm was bandaged to the side, and the whole fixed with a gum and chalk casing, which was also made to pass under the elbow and support it. By means of carefully applied padding, I succeeded in fixing and maintaining the shoulder in very fair position.