the severe rigors that ensued without an operation, would probably have exhibited some worse consequences with it; and were the records of great hospitals minutely examined, we should find, in all probability, that the shock of the operation, even where, from circumstances, no option was left to the surgeon but to perform it, proved quite as disastrous as the original injury. Sir Astley Cooper refers to several such cases in his lectures. One died in four hours after amputation for compound fracture, without any re-action taking place, the body being covered with cold perspiration, and the pulse scarcely perceptible; others survive from eight to eighty hours. The fact, no doubt, was, that the frame had not recovered from the effects of one shock, before it was subjected to another.

In several of the great naval actions during the war, similar results followed, however ably the operations were performed, and particularly in the lower limbs. And even the last, that of Algiers, proved more unfortunate than on many previous occasions, one cause for which was popularly thought to be, though perhaps on no good ground, the large calibre of the enemy's shot, chiefly 42 pounders, which inflicted the injury. Military records of limbs removed, or badly wounded in the field, with a subsequent operation, which a surgeon is often induced to perform, even against his judgment, would, I am satisfied, give similar returns. In these remarks, it is not for a moment meant to be implied that amputation in great injuries is not to take place; for every surgeon finds that he has frequently no alternative. All I would say is, that it does not ensure success, and in many instances is more fatal than the wound that occasions it.

If what I presume to call the conservative treatment of such injuries succeeds so well in the elbow and ankle joints, the question arises, why may it not succeed equally well in compound dislocations of the knee? The general impression is, that it will fail,—that there is something of an irritative character about that joint which places it beyond the curative influence of those means which succeed, even in bad cases, with others. The rule therefore is, in such cases, to amputate. To this Sir Astley Cooper gives the sanction of his eminent name in a very decisive sentence, which, were we to bow implicitly to great authorities, rather than be guided by the advance of science, would settle the matter at once:—"There are scarcely any accidents to which the body is liable which, generally speaking, more imperiously demand immediate amputation than these."

Such is his decree. Yet with all just deference to the admitted judgment and experience of this distinguished surgeon, the point, I apprehend, remains to be determined. Fortunately, the injury is rare, and therefore cannot be tested by frequent observation. He would seem, however, to have arrived at this conclusion, rather from relative circumstances than positive knowledge, for in all his extensive practice he met with but one instance exclusively entrusted to his opinion, and in that he decided to amputate, the patient recovering after being in considerable jeopardy. In another case, he was called to meet in consultation, eighteen days after the accident had been successfully reduced, and the patient going on remarkably well, until vesications, and eventually sphacelus, unexpectedly came on. In this instance, also, amputation was performed on the twenty-eighth day from the accident. The cause of the unfavourable symptoms and consequent operation arose from the rupture of the popliteal artery. But for that accidental variety,—for it is not necessarily usual, nor did it exist in the other case,—the man would have done well, being even then able to get out of bed, and bend and extend the injured knee without pain or inconvenience, or the presence of inflammation. This instance, therefore, given by himself, would seem to negative the conclusion at which he arrived in the sentence already quoted.

Without urging the point more than is necessary, we may be permitted to believe that the question is still in doubt,—that it is fairly open to trial,—and that this trial may be made without giving rise to the charge of undue rashness against the surgeon. Where the chief bloodvessels and nerves remain uninjured, and the integuments can be approximated, I see no immediate necessity for the removal of the limb, where age, constitution, and habits, afford some ground for the hope of its preservation. No parts peculiarly vital are connected with the articulation. It is placed neither so near the heart, the brain, nor the spinal column, as to communicate such violence to either as may prove injurious to life. It is true, the surface of such a joint is large; there is an unexplained degree of irritability connected with its parts; the shock producing partial dismemberment must be great; and the exposure of its interior to external influences, where even no great violence occurs, gives rise, no doubt, to very serious consequences.

These are, usually, excessive inflammation; and such results may occasion death. But as the cause of danger is pretty plain, we may question whether it has been met with that degree of energy necessary for the occasion in cases that have turned out ill; whether, in short, general and local depletion, the free use of opium, of diaphoretics, of purgatives, and cold applications—for none of these can be neglected with impunity—have been carried as far as propriety could warrant. On this point our information is not sufficiently satisfactory. Many cases have doubtless occurred which are not reported; but judging from what I have occasionally seen in the injuries of other joints, I have every reason to believe that less stringent measures were adopted than the formidable nature of the evil required; and this very often from an opinion that any excess in that respect would interfere with the subsequent efforts of nature to repair the injury.

As this paper exceeds the length that had been anticipated, the remarks on injuries to bones from accidents must be postponed. Since it was drawn up, I met by accident the patient whose case it details. He shewed me his arm, with many expressions of strong gratitude, and said, exultingly, that he could swing a sledge hammer with it of fourteen pounds weight.

Royal Naval Hospital, Woolwich, July, 1844.

ON DISEASE AND PERFORATION OF THE STOMACH.

By Henry S. Taylor, Esq. Surgeon, Guildford.

Having recently met with two cases of disease of the stomach, followed by perforation, I send an account of them to The Lancet, as I think they will be found to possess some interest. These cases are placed together, in order to exhibit the contrast in their symptoms, as well as the different conditions of the organ leading to this formidable accident.

I. ULCER OF THE STOMACH, PERFORATION.

Serjeant J——, aged sixty-eight, of spare conformation and active habits, has been used to drink beer and spirits rather freely, and for several years has had dyspeptic complaints. During May and June last, he had repeated attacks of severe gastric disturbance, marked by pain in the epigastrium, with great tenderness, flatulence, and sickness after eating. He soon became weak and emaciated, though his appetite remained good, bowels constipated, complexion not unhealthy, but the tongue flabby, chapped, and of a dirty yellow colour.

These symptoms were greatly relieved by the nitrate of bismuth and aperients, so that he could resume his business. One day, however, he ate heartily of beans at dinner, and all his symptoms were speedily aggravated; and on the following day, July 6th, he was suddenly seized with violent pain in the pit of the stomach, and became extremely faint. I saw him soon afterwards; he was quite prostrated, and suffering intolerable pain over the whole abdomen, with exquisite tenderness; his face pale and sunken, surface cold and bathed in sweat, and with a weak and rapid pulse. I gave him sixty drops of laudanum in hot brandy and water, and had it repeated in smaller doses, with hot applications to the belly and extremities. On the next morning, I found there had been no re-action; he had had frequent vomiting in the night of a fluid like coffee-grounds, and becoming rapidly worse, he died, twenty hours after the first seizure.

Examination of the body, forty-eight hours after death.

The abdomen was distended with much gas. On opening its cavity, it was evident that extravasation had taken place, as some of the coffee-dreg matter lay on the omentum, and among the folds of intestine first visible. About four pints of thick fluid, of a dark-green colour, were effused into the cavity of the peritoneum. There was great vascularity of the omentum and intestines. The stomach had its serous coat intensely inflamed, being glued to the diaphragm and adjacent viscera by recent lymph. On raising the edge of the liver, an opening was observed in the fore part of the stomach, near the small curvature, and one inch from the pylorus; it was as large as a fourpenny piece, nearly triangular, and had a blackened edge like a bullet wound. The stomach at this part was very much thickened, and was firmly adherent to the tissues behind it, so that its cavity was unavoidably opened in removing it. It was much dilated, and its coats were thickened, and the mucous membrane at the cardiac end was soft, and in many places abraded. There was a handful of beans left undigested in its cavity. Near the pylorus, the thickening of the coats exceeded half an inch, and at this point there was a kind of pouch formed, large enough to contain a walnut, circular, and with prominent callous edges; it had the appearance of an old cicatrized ulcer. At the bottom of this recess was the perforation, which was larger than on the outside surface, and had its edges ulcerated.

The *liver* was small, pale-coloured, and very fragile; the gall-bladder much dilated. The spleen was natural, but having its surface roughened by a granular deposit.

The *kidneys* were large and flabby, and in an advanced state of granular degeneration.

II. CARCINOMA OF THE STOMACH—PERFORATION.

Mrs. F——, aged sixty-two, of spare habit, and naturally sallow complexion, is the mother of sixteen children, only two of whom survived infancy; no hereditary disease can be ascertained. She has not taken spirits habitually, though she has worked hard. For many years she had been a dyspeptic, but did not attend much to her ailments until six or seven months ago. She then complained of loss of appetite, pain at the pit of the stomach, and much flatulence, with gradual emaciation and debility. In the beginning of July, I saw her for the first time. She was much wasted; her face had a leaden hue, and haggard expression. She had no appetite, and complained of lancing pains in the region of the stomach, with frequent distention from flatus. Tongue dry and morbidly red, bowels constipated, urine scanty and high-coloured; her pulse was feeble and quick, and she had often palpitation of the heart; there had been *no sickness or vomiting*. She pointed out a tumour in the belly, which had then appeared only three weeks. There was a distinct prominence at the left of the umbilicus, and close to it, about the size of an orange; when pressed upon, it appeared to shrink, somewhat with a sensation of gurgling, and then felt firm and resisting; its surface was lobulated, and the whole mass seemed to be round and circumscribed, as far as could be reached by manipulation, which was attended with much pain. It pulsated rather strongly, but being moveable, pressure to one side removed the pulsation, and no hollow sound could be heard over it, or in the course of the aorta in the back.

At this time, I prescribed some carminative, which she tried for a few days, but not obtaining any permanent relief, she applied elsewhere, (for there was none of the despondency or hypochondriasis met with in cases of mere functional disease,) and for three weeks I lost sight of her. I then saw her again, and she had become much worse in the interval; the pain in the belly was constant, so that she never slept; the tongue was red and glazed, bowels costive and urine more scanty. On examination, the tumour appeared to have shifted its seat, and now presented in the epigastrium, having also become larger and less tender on pressure. I now gave her a quarter of a grain of muriate of morphia once or twice daily, which she continued to take until her death. In the middle of August she had thrush, and her sinking seemed to be imminent, as she took no nutriment, except wine, or spirits and water; her emaciation was extreme, the hands and feet became œdematous, and she would lie coiled up on her side, or sat up crouching forward, in order to take off the tension of the abdominal walls, and in this state lingered on till the first of this month, dying of sheer inanition.

To the last she had had no vomiting.

Examination, thirty hours after death. — The body was attenuated to the last degree; the abdomen rather full, and the epigastric region prominent. The superficial mammary and epigastric arteries appeared in strong relief, and were found to be quite rigid from cartilaginous deposit. The abdomen being opened, three pints of turbid yellow serum were removed from the peritoneal cavity. The tumour was formed by a lobulated mass of carcinomatous growth projecting between the stomach and left lobe of the liver, and pushing the pylorus downwards as low as the umbilicus. The omentum and serous surface of the stomach were much injected, and the latter had formed slight adhesions to the adjoining viscera. In the situation of the pylorus there was a circular opening, perforating all the coats, and large enough to admit the little finger; its margin was sloughy, but it did not seem to have given egress to the contents of the stomach in any obvious degree. On further dissection, the diseased mass was found to be firmly adherent to the bodies of the vertebræ, compressing the aorta and vena cava; the great bulk of it was formed by the head of the pancreas, and a number of absorbent glands, filled with carcinomatous deposit, and with these parts the duodenum and end of the stomach were perfectly consolidated, the whole composing a mass equal in size to a mature fœtal head. Sections of the morbid structure exhibited white fibrous bands of firm consistence, and highly vascular, with interspaces containing a yellowish softened matter, from which puriform fluid could be expressed. The left half of the pancreas appeared only more indurated than usual; the lumbar glands were also filled with cancerous matter. The stomach being laid open, the mucous membrane appeared of a deep, uniform red colour, with much mucous adhering; along the smaller curvature, the surface was studded with small cancerous tumours, the size of peas, which were situated in the submucous tissue; the entire pylorus was occupied by a large and sloughy ulcer, with all the characters of open cancer; in one part of it was the perforation. The coats of the stomach were not much thickened at this point, and their continuity had been preserved, for the most part, by adhesion to the mass behind.

The *liver* was small and light-coloured; the posterior margin of the right lobe contained three rounded masses of cancerous matter in a softened state, as large as nutmegs, which projected slightly from the surface. Several smaller deposits existed in the coats of the gall-bladder.

The *kidneys* were both enlarged and soft, and contained much granular deposit.

In the *thorax*, the lungs were found healthy throughout. The heart had the serous surfaces of the right side completely coated with a thin layer of lymph, (like the white patches so often observable;) there was dilated hypertrophy of the left ventricle, and the mitral valves were rendered almost rigid with cartilaginous patches on their free margins.

Sept. 10th, 1844.

SUFFOCATION CAUSED BY A FOREIGN BODY IN THE LARYNX.

RETRACTION OF THE GLOSSO-EPIGLOTTIC MEDIAN LIGAMENT.

Observed in the Ward of the Sainte-Périne Hospital, by CHARLES JAMES CAMPBELL, Esq. *(Interne des Hôpitaux de Paris)*

MADAME M——, aged eighty-five, a female of a dry and bilious temperament and spare habit, entered the Infirmary in the beginning of February, 1844, and while undergoing treatment for an inveterated gouty affection, met with the accident which put an end to her existence, under the circumstances I am about to relate, after having briefly alluded to a very important point of the case.

In 1843, towards the middle of June, the patient, who had never been observed to eat with gluttony or precipitation, was seized, at the dinner-table, with a violent access of suffocation, the probable result of a portion of solid food having momentarily impeded the free action of the air-tube. Natural vomiting, however, immediately relieved the patient.

The same year, in December, another fit, of the same kind, took place. The house-physician, who happened to be in the Infirmary at the time, immediately relieved the patient by introducing the thumb and index behind the root of the tongue, and extracting a piece of stewed meat, perfectly chewed, which seemed to have been some how fixed behind the epiglottis.

I shall now relate the third fit of suffocation, to which this unfortunate woman fell a victim. I shall pass rapidly over the symptoms preceding death, which I did not witness; but I may be allowed to dwell on the post-mortem examination, on which being performed, we found an organic lesion, but rarely, if ever, noticed or recorded, and which, I doubt not, will throw light on the repeated occurrence of the accident now before us.

On the 15th February, 1844, I visited the Infirmary while the patients were at dinner. The unfortunate subject of this observation appeared to be in a tolerable disposition of body and mind. I had not left her ten minutes, when I was sent for, being told that she was expiring. I arrived immediately, but she lay prostrate and breathless in her chair. The symptoms previous to death had been those of suffocation; anxious habit of the whole body; head and trunk thrown back; contraction of the muscles of the face; blue colouration of the skin; the patient had raised her hand to her throat. The servants had opened the mouth, but could see no foreign body. No attempt was made to explore the fauces; percussion on the back was solely resorted to, with excitation to vomit—but those means proved in vain; the agony only lasted from two to three minutes.

While investigating the cause of this sudden death, I was told by the servants, and the other patients, that soup was the only food she had as yet taken; that she had not touched the boiled beef helped on her plate. This latter assertion, however, we found to be erroneous on the day of the post-mortem examination. During the intervening time, as material proof was wanting, we attributed death to some sudden "epanchement" in the brain, or to the rupture of some important organ of circulation. (?)

Post-mortem Examination, Thirty-six Hours after Death.

Cranium.—No distention of the venous blood-vessels on the surface, or at the basis of the brain; no vascular pointed injection (piqueté) in the substance itself; ventricles void of liquid; plexus choroides of a natural colour; nothing abnormal towards the basis of brain or cerebellum.

Thoracic Cavity.—The left cavities of the *heart* are affected with concentric hypertrophy; no clot, no fibrinous polypi in either