fel. bovis with ox. argent.; but in no case was it found that the oxalate disappeared from the urine under their administration. Nitro-muriatic acid in doses of from four to ten drops three times daily, combined with some tonic infusion, was used in all the cases. In but two instances did it disagree, and this was remedied by adding to it an infusion of hops. In addition to these means, the diet was carefully regulated, using an equal mixture of animal and vegetable food plainly dressed, and abstaining from stimulating drinks; at the same time exercise, bathing and the usual hygienic means were insisted on. We have heard two patients say that the acid acted upon them as an anodyne, that frequently when suffering from neuralgia and an undefined sense of uneasiness which prevented sleep, a single dose of the medicine would procure most decided relief for an interval of some hours. If this relief was not owing to the imagination, it could only have been produced by the action of the acid upon the oxalate of lime, which we think is not at all improbable.

BALTIMORE, June 24th, 1848.

ART. II.—*Surgical Cases reported to the Bureau of Medicine and Surgery.* By M. G. DELANEY, M.D., Surgeon U.S. Navy. (Communicated to this Journal by THOMAS HANNIS, M.D., Chief Bureau Med. and Surg.)

Amputation of the thigh by circular incision.—I wish to call the attention of the profession to the new mode of amputation at the lower third of the thigh, proposed and practiced, with success, by Professor Syme of Edinburgh. The superiority of the flap over the circular operation will admit of a doubt; and the facility of its performance, and nice mechanical adaptation of parts, will scarcely compensate for the not uncommon occurrence of a conical stump. In fact, many able surgeons who advocated the flap operation, and performed it in almost all cases, have now, to a certain extent, abandoned it.

The advantages claimed for it are quickness of performance, and a good muscular cushion for a stump: the first, where it occurs, is a matter of small moment; the latter, a circumstance not necessarily resulting.

Its disadvantages are known to be, increased pain from oblique incision of the nerves, increased hemorrhage from oblique incision of the arteries, the necessity of a greater number of ligatures than is ordinarily used in the circular operation, the greater probability of secondary hemorrhage, retraction of muscles, and finally, a conical stump. It is true that many of the best surgeons continue to practice the flap operation, who, if the results I have mentioned were of common occurrence, would have long

since abandoned it; but in the absence of comparison, it is natural to prefer that mode which is most familiar, and in which we can exhibit the greater dexterity. What I mean to imply simply, is this, that experience has proven the circular to be a safer operation than the flap, in all cases save at the upper third of the thigh; that there is less danger of secondary hemorrhage; that eventually, the flap operation, when successful, is reduced to the circular, inasmuch as little remains but an integumentary stump in both.

I have seen two flap amputations performed upon the same thigh, and by two clever surgeons; both terminated in a conical stump and proved unsuccessful. I cannot affirm that the circular operation in this case would have given a different result, but I have reason to think it would.

A sufficiency of skin, not of muscle, is the requisite for a good stump; and this does not always obtain after the retraction and suppnation of a large muscular flap. I have performed the integumentary or circular operation many times, upon all parts of the extremities except the upper third of the thigh, and lower third of the forearm, and, without a single exception, successfully.

The operation of Professor Syme, which I recommended, and which was practiced in the following case, he thus describes:—

“The compress of the tourniquet should be applied over the artery close to the groin. Instead of the old-fashioned concave edged, thick-backed amputating knife, a middle-sized one of the kind employed for the flap operation, will be found more convenient. The incision of the skin should be made as near the knee as possible, not in a circular direction, but so as to form two semi-lunar edges, which may meet together in a line from side to side, without projecting at the corners. The fascia should be divided along with the integuments, which are thus more easily retracted—not by dissecting and turning them back, but by steadily drawing them upwards, through means of the assistant's hands firmly clasping the limb. This should be done to the extent of at least two inches, or more, if the thigh is unusually thick. The muscles are then to be divided as high as they have been exposed, by a circular sweep of the knife, directly down to the bone, from which they must be separated and retracted with the utmost care. In ordinary circumstances, the retraction should not be less than two inches, and, before using the saw, the bone must be completely exposed by means of a cloth split up the middle, applied on each side of it, and forcibly held up.”

Case.—Mr. Wm. Hart, aged 48, Boatswain U.S. Navy, received a simple fracture of the right leg, in upper and lower thirds, some fifteen years ago. In attempting to rise from the deck he fell with much force upon the knee of the injured limb. Within the usual time, the patient being a healthy man, and free from all scrofulous disposition, the bones were reunited, and he was enabled to pursue his usual duty in the Charlestown Navy Yard. But in the course of a year, the knee upon which he fell began to be painful and swollen. All means were unavailingly employed to abate the pain; and bandages, splints, and rest, were equally useless in the endeavour to produce a cure; or cause ankylosis of the joint. Contraction of the tendons of the knee took place, and for the last five years the extremity

has been carried at an angle of 100° with the thigh. A consultation of surgeons having determined the necessity of amputation, I proceeded to the operation on the 27th of April last, in presenee of, and assisted by, Drs. Cheever, Oliver, and Boardman of Portsmouth. The patient desired that chloroform should be administered, and it was accordingly inhaled, through a sponge, under the direction of Mr. Preston.

I would here remark, that, expecting the speedy action of the chloroform, I had applied and tightened the tourniquet previous to the inhalation. I should not do so again. I would merely buckle the strap and not impede circulation till insensibility was produced. The first few inhalations caused spasms and convulsions, which, however, were easily commanded by the assistants—the patient not being otherwise secured—and it was full four minutes before that stertorous quietude was obtained sufficient to commence the operation. This length of time completely filled the veins of the extremity: and though the hemorrhage was not great, yet it was more than the reduced state of the patient rendered desirable, and double what it would have been had the tourniquet not been tightened till the moment of cutting. The unnecessary loss of blood is an object not to be lost sight of, especially in secondary amputation, where the system is generally very much reduced.

The thigh being very thick, retraction to the extent of three inches was made by dissection, the fascia being so bound down to the muscles by the action of years of bandaging, that it was impossible for the hands of the assistant to retract alone. The skin was not turned back.

Immediately after the first deep incision, the femoral artery was secured by a ligature, and then the muscles carefully separated from the bone to the height of two and one-half inches. The whole operation only occupied six minutes, which, as respects time, will compare favourably with most of the flap amputations. The amount of chloroform consumed was about three drachms, inhaled interruptedly, to prevent the possibility of asphyxia. Yet even with this caution (and the amount of chloroform used was indispensable to produce the desired effect, say two drachms actually inhaled), the patient became nearly pulseless. The stimulus of brandy, however, as soon as it could be swallowed, restored him to partial consciousness in a few minutes.

His perception of objects and hearing remained, to a certain extent, during the operation; but with a total insensibility to pain, and a complete ignorance, for twenty minutes after, that such operation had been performed. The divided arteries seemed little disposed to bleed; and I must here add my testimony to that of others, of the scarcely perceptible difference in colour between the arterial and venous blood. Only four ligatures were required. To secure adhesion by the first intention, I consider the removal of all coagula by a sponge wetted with cold water, the best means. A temporary constriction of the small vessels is thus produced till the parts are

coaptated—no space is then left for coagula, and, consequently, the chance of suppuration is much lessened. Adhesive straps only were applied to the stump, and the patient removed to bed.

Very slight vomiting took place in bed, once only, and for a few seconds—and then all the faculties were gradually restored, and a painless, quiet lassitude obtained. Dissection of the joint proved the necessity of its loss; the cartilage, and much of the encellated structure of the external condyle having been absorbed. The night succeeding the operation had been the most painless one passed for years.

The straps were replaced on the eighth day; no bandage applied; ligatures all removed by the twenty-first day, and on the thirty-fifth day, the patient was walking about his house, with a stump completely healed, except at one small point in the centre.

Only for a day or two, and from irregularity of diet, did any topical application become necessary, and then an evaporating lotion of rum and water reduced the heat to the natural standard. From the seventh week of the operation, the patient has been daily walking the streets in the enjoyment of the most perfect health.

Remarks.—There are two things which I wish to impress by this case—1st, the superiority of Syme's method over every other in amputation of the lower third of the thigh, and the almost certainty, by this mode, of preventing that disgrace to surgery, a conical stump. 2d, the great caution necessary to be used in the administration of chloroform in a large quantity, so as to prevent asphyxia, and this is best avoided by inhaling it interruptedly, and always through a sponge, for the proper admixture of air.

Whilst on the subject of amputation, I may remark that, of late, I have had occasion to amputate many fingers and toes, and I find by experience that (particularly when the flap is made from the plantar or palmar face of the limb) the best mode of union is caused by the interrupted suture.—Three sutures for the great toe, and two for any of the others, will suffice. I leave them in for ten days or a fortnight; they rarely ulcerate through, on account of the thickness of the skin, and they produce an adaptation of parts seldom accomplished by the sticking-plaster and bandage alone.

Castration of enlarged and irritable testicle.—Captain Thomas T., aged 59, had undergone the palliative operation for hydrocele of the tunica vaginalis of the right side, some eighteen months ago. He had neglected to follow the advice of his careful surgeon, and take the necessary rest for a short time. In consequence of his imprudence, inflammation and pain quickly followed, the scrotum increased in size, became pyriform in shape, had constantly to be triced up in a handkerchief, and altogether, both at sea and on shore, as he expressed it, his life was perfectly miserable. I was called to see him on the 14th of May last, and requested to bring with me the necessary instruments for tapping the scrotum.

I found him in bed, where he had been for weeks, and with that peculiar countenance so expressive of great suffering. External applications, and opiates in large doses, had been used, without, in any material degree, abating the pain. Upon examination, I found the right side of the scrotum greatly distended, and, in addition, a large inguinal hernia of same side, for which he had never worn a truss. The intestine was easily returned without diminishing the size of the scrotum, and the spermatic cord, at the abdominal ring, was found to be of nearly the natural size and feeling.

The scrotum was very large—skin smoothly distended, apparently transparent in places, with a slight sense of fluctuation; but the outline of the testicle could not be easily traced. The whole tumour wanted the density and flatness of a diseased testicle. I was greatly embarrassed in my diagnosis. Judging *à priori*, the man had hydrocele; but taking into consideration the great pain and constitutional disturbance, there must be a diseased testis. I stated my doubts, and suggested the propriety of introducing a small exploring trocar. This was done, and not one drop of fluid escaped! Thus was the true state of affairs at once made known, and without causing any noticeable pain. Some there are who may blame my diagnostic discrimination in not arriving upon sight at a just conclusion.—To those I may remark that surgeons, like other men, differ in tact; and are not equally happy in the correctness of their deductions.

Sir Astley Cooper, when in Paris, had been requested by M. Roux to give his opinion, before the medical class, upon the case then on the operating table. It was one of enlarged scrotum. Sir Astley, after a careful examination, pronounced it scirrhus testicle, and declared the necessity of extirpation. Whereupon the wily Frenchman shoved a lancet into the bag, and the scirrhus testicle, to the amazement of Sir Astley, ran out in a limpid stream! In this instance we are bound to admire M. Roux's diagnosis, rather than his politeness. But the case exemplifies this, that a surgeon, however eminent, may sometimes be mistaken.

I advised the necessity of extirpating *this* testicle from the fact of its being so exceedingly painful—the cord being small, and free from knots, and the surface, to the touch, so smooth, and free from tuberculation. Accordingly, on the 16th of May, two days after the exploration, I proceeded to extirpate the testicle, assisted by Dr. Cheever, of Portsmouth.

The hair having been shaved off, an incision was made from the external abdominal ring, to the inferior part of the scrotum, in length seven inches. Careful dissection was here necessary, as the action of the abdominal muscles had forced the intestine into the opening. Instead of separating the blood-vessels from the vas deferens, and then tying them, it was found more convenient to cut half-way through the cord, secure the arteries, and then finish the incision. This proceeding is the quickest; and as no contraction can take place till the arteries are secured, and the cord severed, I consider it the best.

The testicle was then carefully dissected out from the scrotum, and the artery of the septum and a few other small ones secured. Not more than four ounces of blood were lost during the operation. Four sutures were passed through the lips of the wound, which was then lightly dressed with a pledget of lint. Not the slightest secondary hemorrhage occurred, and the only disagreeable symptom was retention of urine for thirty hours after the operation. I had not seen the patient in the mean time, but upon my arrival introduced the catheter, and drew off three pints of urine. From this time forward, not one bad symptom occurred. Adhesion by the first intention, took place over the greater part of the surface, the ligatures came away in seventeen days, and in four weeks from the operation, the parts were entirely healed and complete health restored. Capt. T. never had either gonorrhœa or venereal; neither was he affected by stricture. The body of the testicle contained about three ounces of bloody pus, which in a short time must have found its way to the surface, and caused abscesses. Otherwise, except in density and size, it was apparently natural. Could the contained fluid in the body of the testicle have given, through its thickened walls, the sense of fluctuation, which was perceived upon the first examination? This case goes to show, that even so plain an affair as hydrocele and enlarged testicle may be compounded.

In cases of highly irritable testicle, all palliatives have been, eventually, found useless: and nothing in such cases will succeed but extirpation. Why then hesitate to recommend orchotomy, in preference to years of indescribable suffering? The procreative faculty has been found equally active with a testis, as with testes; a fact strongly exemplified some years ago, in the case of an employé in this Navy Yard. The remaining testis of Capt. T. is in as good condition as could be expected from a man of his age. It was proposed to give him chloroform; which he refused, being of a very resolute disposition: he is now at sea, in command of his own vessel.

Case of congenital glossocœle, or hypertrophied tongue.—Miss Sarah Fernald, aged twenty, a native of Kittery Point, Maine, was born with her tongue protruding from her mouth. It had literally grown with her growth, and strengthened with her strength, until it became a constant nuisance to herself and a disgusting sight to the beholder. She is a finely formed, sprightly, and intelligent girl; has never had any disease save this of the tongue, and a scrofulous ulcer of the sub-maxillary gland, which discharged for some time, and then healed spontaneously. The legend her mother relates is, that when some seven months advanced with this child, she longed for pomegranates, which she had never seen except in a picture, and which desire continued with her till the birth of Sarah. Irreconcilable as it is with common reasoning, and incomprehensible, according to our present knowledge of the power of the mother's mind over the fœtus in utero,

yet we cannot deny the fact, that strange impressions are made through the medium of the mother's fancy upon the unborn infant. The tongue of Sarah did, through infancy, and until amputation, retain the appearance of an open pomegranate,—the enlarged and diseased papillæ closely resembling the seeds of that fruit. I was requested to examine the case, with reference to the feasibility of an operation. I found, as I have described, a handsome intelligent girl, with a tongue protruding (from upper teeth to apex) a little over four inches, circumference seven inches, and thickness at middle of tongue, two inches—indeed the tongue was of nearly the same thickness from root to apex. A deep linear fissure occupied the dorsum of the tongue in its whole length. The protruded portion was quite dark, owing to the number of vesicles filled with blood; and the part in the cavity of the mouth was also covered with these vesicles, and enlarged papillæ,—but in a lesser degree. The substance of the tongue was extremely hard, and scarcely susceptible of pain: and was constantly pouring out a profuse, viscid, and offensive exudation. The tongue could not be retained in the mouth except for a moment; as its intrusion filled the whole cavity of the fauces, and prevented respiration.

The inferior maxillary bone was natural in form, except at the symphysis, where the incisors and canine teeth were separated half an inch, and inclined outwards by the constant pressure and weight of the tongue. The lower teeth were covered with tartar, and rather loose in their sockets, and the lower lip everted on the chin.

She had never been able to masticate with her tongue in the mouth, and consequently lived mostly upon fluids. She was subject to painful periodical swellings of the tongue, every six weeks or two months, during which time she would almost reach the point of starvation, from absolute impossibility to swallow any nourishment for a number of days. During these periodical turns (which had no connection with the menstrual discharge, the latter being always regular) profuse hemorrhage would sometimes take place from the tongue, which at these times looked, as she expressed it, as black as my hat. She could make herself understood, though her words were very thick, and given with a lisping utterance. My advice was requested in this painful case, with the promise that it would be acceded to in all things. I was prepared for such a contingency, by a knowledge of the operation, and success of my former preceptor, Dr. Thos. Harris of the U. S. Navy, now chief of the Bureau of Medicine and Surgery, Washington. A description, with a plate of Dr. Harris' case, may be found in the seventh volume of the *American Journal of the Medical Sciences*, Oct. number, 1830.* The similarity in both cases is remarkable; the prin-

* On the 26th of May, 1835, another operation, similar to the one here mentioned, was performed by Dr. Harris upon the tongue of a young man, aged nineteen, from Tennessee, who had been induced to apply for relief, from having heard of the success of

principal difference exists in the one being a congenital disease, the other not. The plate of Dr. Harris completely represents the tongue of my patient, save the tartaric deposit: in other respects they are alike;—with a balance in favor of Miss Fernald, on the score of youth and beauty.

I decided upon amputation, recollecting the difficulties Dr. Harris encountered, in his attempt at strangulation by ligature, and his failure so to do. Also, his urgent advice to avoid, by amputation, a painful and fruitless proceeding.

On the 30th of May last, assisted by Dr. Oliver, of Portsmouth, I operated in the following manner:—The patient being seated in a chair, her head supported by one assistant, and hands secured by others, I forcibly drew the tongue outwards and downwards by a strong forceps, commenced an Λ incision with a bistoury on the left side, carried it to the median line a little inside of the upper incisors, turned and cut outwards.

Thus, with two strokes excising the part, which was of great density and hardness. A formidable jet of blood immediately issued from the dorsal and ranine arteries, which were, of course, preternaturally enlarged.

I tried to control the hemorrhage by torsion, which failed, as the arteries were so impacted in the surrounding substance that I could not draw them out. Compression was quite as unsuccessful; dossils of lint, wetted with iced alum water, were no better, and so I proceeded to tie the dorsal and ranine arteries, which I did without trouble, and thus effectually stopped the hemorrhage.

The patient all this time suffered so little pain, that the moment the arteries were secured she jumped up and ran to the mirror, to see the effect of the operation. The ligatures were cut off close to the knot, hoping that in their course outward the suppuration might tend to lessen the great thickness of the tongue.

The flaps were now brought together, (the coagula having been carefully removed with iced alum water,) and secured with four interrupted sutures. When this was done, the tongue was of good shape, and no point of cut surface remained exposed. Length of tongue removed, two inches and three-quarters. For nine hours after the operation the tongue remained within the mouth; inflammation and swelling then set in and protruded it. The only dressing applied was a dossil of lint, wetted with ice water. There was no secondary hemorrhage. On the sixth day three of the

the first case. In this patient, the enlargement was congenital;—the tongue projected beyond the upper incisors, three inches—circumference six inches—vertical thickness, one inch and a-half,—of a violet colour, hard and incompressible consistence, and covered with a dark slimy secretion. The deformity was so great, that he was obliged to wear constantly a silk handkerchief over his mouth, and around his neck.

The result of the operation was complete; and the gentleman subsequently became a practitioner of medicine, in his native state. The details of this case, with descriptive plate, may be found in vol. 20th, *American Journal of the Medical Sciences*, 1837.

sutures were removed, and on the twentieth, complete union had taken place by the first intention. The turn of periodical inflammation had come round by this time, and the tongue became slightly swollen, and the sub-maxillary gland of the left side very much so. The application of half a dozen leeches with saline purging quickly subdued this attack. The patient had been put upon the tinct. of iodine, and it was continued with benefit.

On the 5th inst., Miss Fernald, for the first time in her life, chewed with the tongue in the mouth. It is now kept within the teeth, like any normal tongue, and protruded with slight difficulty. The exudation is very trifling—not sufficient to afford the slightest inconvenience, and altogether deprived of unpleasant odour. On the 10th inst. I had occasion to remove the lower incisor teeth, their horizontal projection having caused ulcers in the lower lip, which has now assumed its natural position, and completely closes the mouth. On the 25th of July Miss Fernald paid me a visit at the Navy Yard, and I take pleasure in saying, that a more comely looking girl, or one better pleased with her own altered condition, can rarely be found.

The fear of hemorrhage has deterred surgeons from amputating any considerable portion of the tongue. The recorded case of Dr. Harris, and the present one, are the only operations of the kind that I have any knowledge of, in the United States.

The tongue may be operated upon with as much safety as any other organ in the body, and its great vascularity ensures a more speedy union. But no operation by ligature should be attempted. The knife alone is to be relied upon, and the arteries being secured, and parts adjusted, as in the Λ incision, very little need be feared from secondary hemorrhage.

In confirmation of the above opinion, I may be permitted, briefly, to detail the following case:—

In October, 1845, I was attached to the U. S. sloop-of-war *Saratoga*. We were then lying at anchor, off the Island of Sacrificios, at Vera Cruz. At sun-set, on the approach of a norther, all hands were engaged in sending down top-gallant masts, striking top-masts, &c. Midshipman Joseph F. was stationed on the poop, and whilst standing at the taffrail, and looking aloft, the spindle of the mizen lightning rod, weighing some five pounds, came down by the run, the point of it striking Mr. F. on the left upper lip, carrying away the left upper incisor and canine teeth, fracturing slightly the superior maxilla, passing obliquely through the middle of the tongue, and the middle of the right sub-maxillary gland, and after grazing the sheath of the ear-tid, protruding some four inches through the skin, over the sternomastoides, three inches below the angle of the jaw. Of course he was felled to the deck, and it required much force to withdraw the spindle. Immediately upon effecting this, a rush of blood took place from the wound;

but my assistant, that very clever young surgeon, Dr. Bernard Henry, who was standing alongside of Mr. F. at the time of the accident, applied pressure to the neck with his fingers, and had him conveyed to the cabin. The hemorrhage was considerable; but it was evident, in a moment, that the carotid was intact, and that the superior labial, dorsal artery of the tongue, sub-lingual, and probably a branch of the superior thyroid, were the principal arteries involved. The cut surface of the upper lip being smooth, was closed by sutures. The spindle had rather a sharp point, which was coated with platina. Cold acidulous drinks were given, and perfect quietude in the horizontal position enjoined.

The teeth were never found: the tongue had the appearance of having one of them embedded in its centre, but it could not be felt. For two days there had been free bleeding from the mouth, and lower orifice on the neck; and styptic applications, without pressure, were the only means admissible. We were ready at any moment, if requisite, to tie the common carotid, below the superior thyroid; but after forty-eight hours, the bleeding, in a great measure, ceased. The period of sloughing was watched with some anxiety, but it passed by without hemorrhage: and in the course of four weeks, the patient was about decks again, the wounds all having healed, and with a scarcely perceptible scar upon the upper lip. The middle of the tongue remained enlarged; and whether from this cause, or injury of the sub-lingual nerve, there was a slight impediment in the speech, for a few weeks. Had the arteries of the tongue only been involved in the injury, I should not have hesitated to pass a strong curved needle with a ligature, through that body, and thus command the hemorrhage:—so little danger is there, in my opinion, in operations upon this organ. To the untiring attention of assistant-surgeon Henry was the patient mainly indebted for his speedy and happy recovery.

NAVY YARD, Portsmouth, N. H., July, 1848.

ART. III.—*Extracts from the Records of the Boston Society for Medical Improvement.* By SAMUEL PARKMAN, M. D., Secretary.

Jan. 24th, 1848.—*Hydrocephalic Child.*—Dr. Sturser presented two drawings for the cabinet, and read the following account of the case with measurements, &c. The child was examined at Brighton October 29th, 1847. It was then five years and six months old. It died about a fortnight since, being about five years and nine months old.

Its head measured as follows:—

Circumference, $27\frac{3}{4}$ inches; from centres of meatus auditorii, $17\frac{1}{4}$ in.; from base of nose to occipital ridge 19 in.; from base of nose to hair on