experiment is worth trying. One difficulty, no doubt, would arise in some instances from the violence of the patient's struggles, which are often such as to require considerable force to hold him; but this obstacle might, I believe, be overcome with less risk than that incurred by throwing him into a state of coma. I may mention, that I have observed results similar to those in Dr. Murphy's patient in a case of my own, where a lady was delivered with the forceps under chloroform, and who exhibited every indication of suffering during the operation, but who, after all was over, declared that she had felt little or no pain. The suggestion I wish to throw out is, whether, in the use of chloroform, we may not insure a greater degree of safety by limiting its effects to the earlier stages of anaesthesia, without depriving our patients of all its beneficial effects. I will not venture definitely to decide this question, but I commend it to the consideration of those who may have the opportunity of confirming or negating the position. It may be considered that, as the cases upon which I have mainly founded my observations are of so simple a nature as the extraction of a tooth, the test has not been a fair one; but a little consideration will, I think, show that scarcely any surgical proceeding can afford a much better proof of insensibility to pain. The operation, it is true, is very short in duration; but I question if any pain is for the moment more acute, and more difficult—or I would say, impossible—to be borne without the slightest shrinking or indication of consciousness, than that of passing the jaw of the tooth-key or forceps between the neck of a tooth and its surrounding gum, especially when one or both of those structures, as is usually the case, are in a state of exalted sensibility, from a greater or less degree of inflammation. Moreover, I may observe that, in the more serious operations of surgery, such as lithotomy and the amputation of the breast, I have been able to notice the same peculiarities as those I have specially alluded to as occurring in dental operations.

In conclusion, I would remark, that if my views should be borne out by future observations, the objection to the use of chloroform in certain operations connected with the face and mouth will be got rid of; for I am quite satisfied that, if the first stage only of chloroformisation be produced, there will be no risk of insensibility of the epiglottis, and consequent danger of blood entering the trachea: indeed, in many of the operations I have conducted, there has been considerable hæmorrhage within the mouth, quite sufficient, in fact, to cause death, if the epiglottis had failed to perform its function.

CASE OF AMPUTATION OF THE LEG, IN WHICH NO LIGATURE WAS USED.

By CHARLES HOLMES, Esq., M.R.C.S.Eng., Chipping Norton.

CASE. On the evening of the 23rd February, 1856, I was requested by Mr. H. to visit T. C., a boy 12 years of age, to whom he had been called, on account of an injury from a thrashing machine. The lad was in much pain, and somewhat faint; but I was informed there had been little loss of blood. I found an incision above the ankle, encircling the limb, and the skin reflected over the toes laying bare the extensor tendons of the foot; in addition to which there was compound dislocation of the ankle, with displacement, and comminuted fracture, of the astragalus. Any hope of saving the limb being out of the question, and the position in life of my patient rendering the possession of an artificial foot a matter of uncertainty, I proceeded six hours after the accident, to amputate by the circular operation at the middle of the leg. On loosening the tourniquet, there was a slight oozing from the surface of the stump, but no appearance of arterial blood could be detected. At the expiration of fourteen hours, the boy in the meantime having some quiet sleep, and expressing himself as feeling well, the edges of the wound were brought together by slips of soap plaster, and kept in position by a few turns of a bandage.

Feb. 25th. Going on well.

Feb. 29th. Dressed the stump. Looking well.

March 1st. Has suffered from violent diarrhoea during the night, probably occasioned by irregularity of diet. Ordered a mixture of chloric ether, and aromatic confection. Wound painful.

March 2nd. Diarrhoea less. Continue mixture. Two ounces of port wine daily. Some sloughing of integuments. Apply a bread poultice.

March 4th. Wound healthy.

From this time, nothing worthy of record occurred, and the wound is now (March 27th) almost entirely healed.

REMARKS. In speaking of the comparative merits of the circular and flap operations, Fergusson states that the only instance in which he has seen "a single ligature alone required in the thigh was a circular operation". Sir George Ballingall and others have also asserted that the vessels retract more completely in the circular operation, and the above case would certainly support such an opinion. This superiority being admitted, it is to be considered if it counterbalances the advantages peculiar to the flap; and I confess my experience does not enable me to speak on the subject. I may observe, that chloroform was not given in this case, as I had not the necessary assistance at hand: indeed, the operation was performed by the light of a small candle held by a female.

COMPLICATED CASE OF BRIGHT'S DISEASE.

By J. L. W. THUDICHUM, M.D.

[Read before the Medical Society of London, March 29th, 1856.]

Mrs. L., aged 65 years, had been attended by a physician in London. She had been ill three months: at first she had anasarca, which, however, disappeared, and heart-disease became the prominent feature of the case. The leading symptoms which preceded death are interwoven in the comments on the *post mortem* appearances.

The necropsy was made by me, sixteen hours after death. On inspection of the body, I noticed a bed-sore at the back of the head; it was a part of the covering of the skull, of about the size of a crown-piece, in a state of inflammation and diffuse suppuration, extending to the bone. This had no doubt been caused by the patient having never been able to sit up, and latterly not even to lie on either side. There was no bed-sore on any other part of the body, owing to the layer of fat underneath the skin being very much developed. There was no partial or general discoloration of the skin, which is a matter of some interest, as both the supra-renal capsules were found to be diseased. On the abdomen, an umbilical hernia of considerable size presented itself.

On opening the head, there was found general œdema of the arachnoid; but no other lesion of the brain or its membranes was discovered, to which the spasmodic fits and paralytic symptoms on the left side, and principally on the left part of the face, which were observed during the last days of her illness, might have been referred. But the œdema of the arachnoid and the state of the kidneys, to be described hereafter, are perhaps sufficient to account for the latter.

The heart was found very much enlarged in all its parts, and none of the openings seemed to have been closed any longer by its valves. Both ventricles and auricles were much distended by clotted dark blood. In the right auricle was found the shell of what had been a fibrinous clot, but which evidently had softened and burst, and discharged its contents into the general mass of the blood. The blood must have carried the matter to the lungs, and there caused the peculiarly sudden and severe inflammation which had been diagnosed during life by percussion, and by the bloody sputa, which mostly consisted of dark blood only, and differed little from the sputa in tubercular hæmoptysis.

The right lung was throughout adherent to the thorax; its upper half was in a state of intense hepatisation, with

grey softening in the centre. A thick bloody matter filled the bronchi, evidently a mixture of blood and pus. On the posterior part, the hepatisation extended to the base of the lung, but was less intense. There was evidently a good deal of passive congestion in both lungs, which is accounted for by the heart-disease. The left lung was not adherent, but its upper half was hepatised. There was no emphysema, except perhaps a few trifling spots which may be brought under that denomination.

The disease in the chest, therefore, was peculiar, in its cause being general dilatation of the heart, giving rise to a fibrinous clot, which, softening and bursting, in its turn caused pneumonia, the latter being again aggravated by the heart-disease. The pneumonia was peculiar, by the suddenness with which it appeared, by the expectoration of pure blood, and by its mainly affecting the upper parts of the lungs. It differed, however, from common croupous pneumonia, from the disease we commonly call pneumonia, in the particular that there was no fibrinous layer over the pleura pulmonalis of the hepatised parts: the adhesions were evidently of old standing.

The liver was in that peculiar state of hyperæmia commonly called nutmeg-liver. In the explanation of this phenomenon, I adhere to the opinion of Theile, set forth in the article Liver, in the *Cyclopædia of Physiology*, edited by Wagner. The specimen under consideration showed on its peritoneal surface, as well as on any cut surface, a spotted appearance. The spots were of different colours, dark red ones alternating with light red or yellow ones. The dark red colour was the expression of the presence of blood; the light red or yellow colour shows that fluid to be diminished in quantity, or absent. In one part of the liver, the dark red spots formed a net, enclosing yellow spots, as on the peritoneal surface; in other parts, principally the deep cut surfaces, a yellow network surrounded dark spots. The networks evidently corresponded with the peripheral, the spots with the central parts of the acini of the liver. The hyperæmia, therefore, was not uniform, but relative, anæmia being its close neighbour. A yellow network, therefore, is only another expression for anæmia of the portal veins (forming the peripheral part of the acini); and dark spots are hyperæmic hepatic veins, and *vice versa*. The fact of portal and hepatic venous hyperæmia existing together in this liver, and the fact that, besides an increase in size and a peculiar position of the lower border of this liver, to be explained hereafter, no lesion or anomaly of its larger and more minute structure could be discovered,—makes me of opinion that the nutmeg appearance in this case was relative hyperæmia in an absolutely hyperæmic, because enlarged, but otherwise healthy liver.

Some authors on morbid anatomy—for, example, Heschl—incline to the opinion that the nutmeg liver is a cadaveric phenomenon, like hypostatic colorations, because the two forms of portal and hepatic venous hyperæmia occur in many variations in one and the same liver, as was the case in the one under consideration. The latter fact certainly shows that there is no particular reason for the presence of either of the forms of hyperæmia, but only for the hyperæmia of the whole organ. How far the above opinion may be correct, I have, however, no means of judging either from the specimen described or from former examinations of nutmeg livers.

The designation of this phenomenon as “nutmeg-like” is most unfortunate, as any two nutmegs will show at first sight. They are certainly spotty; but, as to networks, they are mostly absent. The hepatic venous hyperæmia might perhaps hereafter be designated as “lobster liver”, or “lobsterlike liver”, as a glance on the thorax of this animal will be sufficient to prove how beautiful a diagram of that phenomenon it affords. The nutmeg certainly gives more an idea of the irregularly spotted appearance of a liver affected by cirrhosis, in which the two modifications of hyperæmia just described are accidentally present, as undoubtedly may be the case.

From this digression I return to the description of the

morbid changes which the rest of the intestines had undergone in this complicated and remarkable case.

The stomach, colon, and sigmoid flexure, were tied to the umbilicus by the omentum, which filled an umbilical hernia which the woman had had from infancy; and as the internal opening or neck of the sac was permanently closed by the union of the net with the umbilical aperture, it had never caused her any inconvenience. In the cavity of the sac there were found two oblong flat bodies, one adherent to the peritoneum by a small pedicle, the other detached; they were cysts, covered with peritoneal epithelium outside, and containing the same, as soft gritty matter, in their cavities. Parts of their fibrous walls were in a state of cartilaginous and osseous transformation. Such bodies are not rarely found free in the cavity of the peritoneum, and occasionally met with by the surgeon in operations for hernia.

The intestinal canal showed no anomaly in its physiological anatomy; and this was in accordance with the regularity with which its functions were performed during life. The digestive system was, in fact, the only system which had been spared by the ravages of disease.

After the removal of the small and large intestines, it was at once apparent what had made the surface and lower border of the liver appear irregular to palpation: it was a tumour in the site of the right kidney, of a loculated fibrous appearance, yellow white colour, fluctuating in one part, clayey and pitting in another; it was, in fact, the diseased kidney itself, with a large accumulation of fat in its hilus. The loculi were so many abscesses—fibrous walls, enclosing cavities filled with pus in a state of fatty degeneration. The pus was of a perfectly white or yellowish white colour, of a consistence like paint, some like cream, and smelling like cream. Under the microscope, it showed small pus-cells in a state of fatty degeneration, and fat-granules. One loculus was filled with a clear serous, very albuminous, alkaline fluid. There was no trace of the tissue proper of the kidney left. The hilus was filled up with fat, being a continuation of the fat deposited outside it. The ureter was empty, and permeable for about two inches, when it suddenly became obliterated for about half an inch, but from that point continued pervious down to the bladder. The whole was evidently the result of acute Bright's disease of the kidney; but the active process had evidently ceased long ago, and all the changes now going on were of a retrograde nature.

The left kidney was of about three times the size of an ordinary kidney, surrounded by very little fat, and easily separated from its capsule. Its weight was about thirteen ounces. Its surface was covered with a layer of cellular tissue—an organised fibrinous exudation. Imbedded in the cortical substance of the kidney there were a large number of serous cysts, from the size of a pin's head to that of a large pea. On being opened, these cysts showed a smooth surface, and were found to be unilocular. One cyst on the middle of the outer border was compound, as was shown by the many threads passing through its cavity, and the projections along its walls, which were the remains of the adjoining walls of several cysts transformed into one. The consistence of the preparation was that of an ordinary kidney; its colour was variable in different spots; in some it was dark red, but the larger part of the surface was greyish red. The cysts were slightly projecting, dark, and shining; and in one spot on the front aspect of the preparation there was a hard, black, uneven protuberance. The latter, on being divided with the knife, was found to be an ecchymosis at the base of a pyramid; on the surface, the blood was transforming into black pigment; more towards the middle, the blood was dark red, lying on the congested pyramid, which, on section being made, consisted of a number of yellow pink and dark red streaks, running longitudinally, converging towards the point of the pyramid, and corresponding with the course of the tubuli. Other pyramids presented the same appearance, only less marked, and without ecchymoses. Other pyramids, again, were of a light colour, not streaked, and, on section, made the knife

greasy. In them there was complete destruction of the tubular tissue, and they were continuous with the deposit of fat between the hilus and the blood-vessels of the kidney. There were some few pyramids left, which only presented the features of congestion, but in a most marked manner.

The specimens were exquisite illustrations of Bright's disease. The right kidney, as we have seen, represented the termination of acute nephritis, purulent destruction of the whole organ, transformation into a multilocular cyst, the loculi corresponding in number with the systems of pyramids, filled with pus in fatty metamorphosis. There was a large deposit of fat in the hilus, and the ureter was obliterated. The left kidney, on the other hand, showed the three stages of nephritis: first, enlargement of the whole organ from hyperæmia, partly perhaps due to hypertrophy, as is likely, from the chronic nature of the case, and from the increased function necessitated by the destruction of the right kidney. There was hyperæmia of single pyramids, fibrinous casts, extravasated blood-corpuscles, and epithelium of the tubules, in a state of incipient fatty degeneration. The second stage was represented by the yellow streaks, the enlarged tubuli in fatty degeneration, and by the ecchymosis at the base of a pyramid. Only one feature of the second stage was wanting—the granular appearance from varicose tubuli. The third stage was represented by the pyramids transformed into fat, and by the fat deposited all round the organ. It was, moreover, illustrated by the presence of the cysts, and the enlarged Malpighian capsules of the obliterated tubuli, which had not undergone the process of atrophy, but had, through colloid and serous exudations, become distended to their present size. In one particular, the preparation showed features opposed to what we usually find a characteristic of the third stage. There was hypertrophy to three times the size, instead of atrophy to one-third or one-fifth of the normal size of the kidney. This we can only explain by hypertrophy having taken place in consequence of the labour demanded from the kidney after the acute stage had subsided. The kidney acted so well that there was no *anasarca*, except the slightest degree of œdema on the left foot, which might well be referred to the heart-disease. There was no effusion in any of the cavities, except œdema of the arachnoid; and, as regards the discharge of water, the kidney performed satisfactorily, though of course the urine was highly albuminous, and contained blood-corpuscles and fatty tubular epithelium. The patient took little fluid latterly, though she was always thirsty, because the fluid created wind on her stomach, which in its turn increased the dyspnoea. There was probably a degree of uræmia, as the breath of the patient had a very bad smell latterly. The urine I examined was taken from the bladder after death, as none could be obtained during life, it being passed into towels, not from incontinence, but because it was impossible to move, shift, or raise the patient, without exposing her to the danger of sudden death from fainting.

The supra-renal capsules were both diseased; most likely inflammation and abscess giving rise to the tubercle-like matter which filled both these organs. No discoloration of the skin was, however, noticed on any part of the body.

I am not sure about the manner in which the heart-disease was connected with that of the kidneys. The amount of fatty degeneration found in the heart is not sufficient to account for it.

To recapitulate: the case seems to have been Bright's disease, its stages modified in a remarkable manner in the left kidney; disease of supra-renal capsules; eccentric hypertrophy of the whole heart; fibrinous clot in the right auricle, softening, and discharge of the *débris* into the lungs; mechanical stasis and pyæmic pneumonia, with purulent softening, aggravated by the heart-disease; lastly, œdema of the arachnoid, causing convulsions and paralysis. Hypalbuminosis, perhaps uræmia, will assist in accounting for the convulsions.

CURIOUS SUCCESSION OF DISEASES.

By G. MALLETT, Esq., Bolton-le-Moors.

ON the 20th October, 1855, I was requested to visit the children of Mr. W., innkeeper. I found two of them covered with a scarlet efflorescence, which had made its appearance that morning, accompanied with fever and slightly ulcerated tonsils. The ulceration of the tonsils had existed for two days. The older boy was about five; the younger one, three years and a half old. This combination of symptoms indicated in the most decided manner that they were both affected with the prevailing epidemic—scarlatina. As the febrile symptoms were not severe, and there being no indication of great local mischief, I merely directed that they should be kept in bed, and have for diet, chicken broth, gruel, etc.; and, if thirsty, lemonade to be given *ad libitum*.

Oct. 21st. Much the same; all the symptoms continued favourable.

Oct. 22nd. The younger boy was in the same state as yesterday, but the older one presented a most marked and surprising alteration. The throat was better, and the eruption entirely changed in its character. The eruption now exhibited the peculiar characteristics of measles; he had also cough, sneezing, and runnings from the eyes and nostrils: in fact, I never saw a more strongly marked case of rubeola. On the fifth day from the commencement of this second eruption, it vanished, and with it all the other symptoms of measles, and then reappeared the peculiar efflorescence of scarlatina, which continued for two days, and then disappeared; these two days, with those two preceding the measles, completing the ordinary term or duration of scarlatina.

The case of the younger boy went on regularly for the first four days, when the symptoms of scarlatina disappeared, and on the following day those of measles succeeded, so marked as to leave no doubt in the mind as to its being a decided case of measles. The eruption lasted four days, when there remained only a cough, which was also present in the other patient. Two or three days afterwards, both of these cases showed slight symptoms of whooping-cough, and in a week they became decided and unmistakable cases of that complaint.

Besides these two children, there was in the house, at the time I was first called in, an infant, which, as it was suffering severely from dentition, I thought it prudent to recommend to be removed into the country, in the hope of placing it beyond the reach of infection. It was at once done, but in vain; the system had already absorbed the poisons; and on the 3rd November I had to visit the child in the country. I found it affected with the fever in rather a mild form, which pursued its usual course, disappearing on the fifth day, to be immediately followed, as in the other cases, by rubeola. This attack was very severe, being complicated with dentition and a severe bronchial affection. However, the disease pursued its usual course, and terminated at the usual time, there remaining only a severe cough, which, as in the other cases, ended in whooping-cough. The case ultimately did well, and the child is now in perfect health.

On the 24th November, my patients were all so far recovered that I deemed a longer attendance unnecessary. The whooping-cough still continued, but not in a severe form. Before taking my leave, I strongly recommended that all of them should remain up stairs until the cough was decidedly better, as, without such a precaution, in a public house, exposure to cold and draughts could not be avoided. My recommendation was not attended to, and the children were at once allowed the run of the house. The consequence was, that the child three years and a half old caught cold, which produced an attack of acute pneumonia, and not until it had existed for four days I sent for. I found the poor boy almost moribund; the respiration was frequent; the left lung almost entirely consolidated; the sputa rusty, and occasionally bloody; the pulse so feeble and quick that it could not be counted. Death