traceable in Experiment I. They seemed to contain a larger proportion of pigment and salts, and lost a much smaller percentage of their weight during corresponding periods of immersion in the oils.

EXPERIMENT II.

Time of Immersion in Oil.	Olive Oil. Weight of Stone, 0.252 g.			Almond Oil. Weight of Stone, 0.251 g.			Paroleine. Weight of Stone, 0.256 g.		
	Weight of Stone in g.	Loss of Weight in g.	Loss of Weight per cent.	Weight of Stone in g.	Loss of Weight in g.	Loss of Weight per cent.	Weight of Stone in g.	Loss of Weight in g.	Loss of Weight per cent.
2 hours	0.2475	0.0022	1.7	0.2515	0.0045	1.7	0.251	0.0055	2.1
12 "	0.2190	0.025	10.1	0.2300	0.0211	8.3	0.241	0.0150	5.9
24 "	0.2040	0.048	19.0	0.2100	0.0410	16.3	0.230	0.0260	10.3
36 "	0.1970	0.055	21.8	0.2020	0.0490	19.7	0.225	0.0310	12.3
48 "	0.1730	0.079	31.3	0.1810	0.0700	28.6	0.212	0.0440	17.3
3 days	0.1450	0.107	42.4	0.1540	0.0970	38.8	0.193	0.0630	24.8
4 "	0.1200	0.131	52.1	0.1260	0.1250	50.0	0.176	0.0804	31.4

The gall stones of the last experiment were obtained from the same case as those of Experiment II, and presented similar characters. They were of enormous size, being as large as filberts. Although they commenced to dissolve within one hour, the loss of weight per cent. as time went on was not nearly so great as the previous cases. Their size was probably sufficient to account for this. It was noticeable that the paroleine was not so successful as with the smaller stones.

EXPERIMENT III.

Time of Immersion in Oil.	Olive Oil. Weight of Stone, 3.592 g.			Paroleine. Weight of Stone, 3.366 g.		
	Weight of Stone in g.	Loss of Weight in g.	Loss of Weight per cent.	Weight of Stone in g.	Loss of Weight in g.	Loss of Weight per cent.
1 hour	3.587	0.005	0.13	3.358	0.008	0.23
3 hours	3.558	0.034	0.94	3.356	0.010	0.30
24 hours	3.355	0.237	6.50	3.220	0.146	4.30
48 hours	3.131	0.461	12.80	3.100	0.246	7.39
3 days	2.898	0.694	19.30	2.933	0.433	12.80
5 days	2.285	1.307	36.30	2.600	0.766	22.70
7 days	2.079	1.513	42.10	2.585	0.811	23.20
15 days	1.667	1.925	53.50	2.419	0.947	28.10

These experiments show that gall stones are freely soluble in olive, almond, and purified petroleum oils at the temperature of the body, the rate of solubility being inversely proportional to the size of the stone, that is, the large stones take much longer to dissolve, in proportion to their size, than small stones.

It is difficult to explain the action of oil in the elimination of gall stones, whether dependent on solvent power or on a purely mechanical effect on the digestive tract.

In cases in which the oil treatment seems worthy of a trial one of the purified, odourless, and tasteless petroleum oils can with advantage be used when the olive oil proves nauseating for internal administration.

TWO CASES OF STRANGULATED HERNIA WITH CONTINUANCE OF SYMPTOMS AFTER APPARENT REDUCTION BY TAXIS: HERNIOTOMY: CURE.

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THE following two cases of strangulated hernia were lately admitted under my care at the General Hospital, Birmingham, within a few days of one another. Each patient was suffering from symptoms of acute intestinal obstruction unrelieved by

apparent reduction of a strangulated hernia. In the one case it was found that a small knuckle of intestine (too small to be felt through the abdominal parietes) remained still unreduced. The other was a typical example of the somewhat rare accident of reduction *en masse*. As they illustrate well two of the commonest causes of this complication after the apparent reduction of a strangulated hernia I have ventured to publish them together.

CASE I. Strangulated Right Inguinal Hernia: Taxis and Apparent Reduction: Continuance of Symptoms: Herniotomy: Cure.—J. B., aged 28, a cooper, was admitted into the General Hospital on June 18th suffering from acute intestinal obstruction. His history was as follows: For five years he has had a rupture in the right groin, which when unsupported filled the "purse" on that side. As a rule he wears a truss; but occasionally leaves it off for a day or two. Three days before admission in the early morning, whilst lifting a heavy cask, the rupture suddenly descended, and he had violent pain across the navel. He went to bed at once, and a medical man applied taxis to the hernia, and was apparently successful in reducing it. The pain became much less, but never entirely disappeared. During the next two days the pain continued as before, with vomiting and complete constipation. On the day before admission he had a frequent desire to pass water, but was unable to do so. The bowels were opened before he went to work on the morning of his seizure, but have not been opened since.

On admission, the patient complained of much epigastric pain, coming on in paroxysms, which completely prostrated him. He had much irritability of the bladder but total inability to pass any urine. The face was pinched, the tongue furred and becoming dry. A careful examination of both groins failed to detect any hernia. There was much tenderness along the right inguinal canal, and the external abdominal ring on that side was larger than on the left. The vomiting continued after admission, and there was no action of the bowels in spite of repeated purgative enemata.

On the following day, as he was decidedly worse, he was anaesthetised, and the inguinal canal explored on the right side. An oblique incision was made along the whole length of the canal, and the external oblique aponeurosis divided. After careful dissection the sac of a congenital inguinal hernia was exposed. This was opened, and gave vent to several drachms of bloody fluid. No intestine could be seen in the sac, which was apparently empty; but on passing the finger up towards the internal abdominal ring, a small knuckle of intestine was discovered tightly nipped at the internal ring. After some little difficulty this was exposed, the ring divided, and the intestine reduced. The upper part of the sac was then dissected up from the other constituents of the cord and ligatured at the inner ring. The fundus of the sac was stitched round the testicle and the intervening portion excised. The external oblique was sutured by a running suture and the external wound closed.

He made a rapid recovery. The vesical irritability ceased at once. The bowels were opened after an enema on June 24th. Primary union of the wound took place, and he left the hospital wearing a light truss on July 12th.

CASE II. Strangulated Left Inguinal Hernia: Reduction en masse of the Strangulated Hernia: Herniotomy: Cure.—W. M., aged 49, a mechanic, was admitted into the General Hospital on June 21st with symptoms of acute intestinal obstruction of four days' duration. Seven years ago the patient had a strangulated right femoral hernia, for which herniotomy was performed by Mr. Heaton. Since then he has worn a truss at times, with a femoral pad on the right side and an inguinal one on the left. A fortnight ago this truss broke, and since then he has been at work without one. Four days ago, whilst at work, the inguinal rupture on the left side came suddenly down into the scrotum. He vomited immediately, and has continued to vomit since up to admission. The next day he and his son attempted to push the rupture back. They continued their efforts for six hours, when suddenly the rupture entirely disappeared. The vomiting and acute colicky abdominal pains still continued, however, and constipation has been absolute since the beginning of the illness.

On admission, the patient was extremely weak and ill. Abdominal facies well marked. There was a reducible femoral hernia on the right side, with the scar of the old

operation over it. The left side of the scrotum was apparently normal; the external abdominal ring was considerably larger on that side than on the right, and the inguinal canal seemed large to the examining finger. No tumour could be felt in the inguinal region, and there was no appearance of a hernia on attempts at coughing. The rectum was empty; the abdomen slightly distended and tender all over.

From the history of the patient's symptoms a diagnosis of a strangulated inguinal hernia was made, and from the appearance of the parts it was thought probable that the hernia had been reduced *en masse* by the patient and his son.

Herniotomy was at once performed. A long oblique incision was made over the left inguinal canal. The external oblique aponeurosis was laid open along the full length of the wound. The spermatic cord and the tissues around appeared bruised and infiltrated with blood. Situated high up the inguinal canal, and covered by the internal oblique and transversalis muscles lay a dark-coloured sac, which on opening proved to be the old hernial sac full of very darkly-congested intestine. The intestine was almost black in colour, but after division of the neck of the sac it improved somewhat in colour, and so it was decided to return it. The empty sac was ligatured at its neck and excised. The aponeurosis and skin wound was treated in exactly the same way as in the first case.

The patient's recovery was slow but uninterrupted. The bowels were open naturally on the third day, and all stitches removed on the eighth day. On July 5th it was found that the lower rectum had become distended with hardened masses of fæces, which copious enemata completely failed to dislodge. These had to be removed mechanically, after which the bowels acted regularly. He was discharged well on July 15th.

A CASE OF OPERATION FOR ABSCESS OF THE LUNG DUE TO LOCALISED NECROSIS.

BY

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THE patient, a labourer, aged 45, was admitted into the hospital at the end of July, 1896, during my absence from home, and I saw him first on my return on August 25th. His family history was good, and there was no history of any family tendency to tuberculous or other lung disease. He had always been subject to epileptic fits, but had no other illness of any kind, and had never suffered from bronchitis or winter cough. There was no history of syphilis. He denied alcoholism, but had probably drunk freely at times.

He had been engaged in working at the sewers, and stated that "he got the sewer gas into his stomach" at the beginning of June, 1896, and to this he attributed his illness. The illness began with nausea on returning home at night from work. After some days he began to have attacks of vomiting, with the ejection of a quantity of "heavy phlegm." He also suffered from violent paroxysms of cough, coughing until he was black in the face. The expectoration, little at first, rapidly increased in quantity and became very offensive. The cough was especially apt to come on at meal times, causing him to vomit. He was unable to go on eating afterwards on account of the nausea produced by the smell of the vomit and of the eructated gas. He went on with his work for a week after the vomiting began, and was then obliged to desist. He had then dyspnoea on any exertion. The breath soon became offensive apart from the attacks of cough. There had been no hæmoptysis. He had lost flesh from the first week of the illness, and suffered from profuse perspirations, and probably from slight fever towards night. In other respects he felt well. The onset of the illness was thus subacute, not sudden in character, but clearly defined from a period of previous good health.

On examination July 29th the patient was thin and rather dusky in colour; his face was somewhat puffy. Pulse 96,

regular; respiration rate 30. Skin perspiring freely. Breath very offensive. The chest in front showed evidence of some emphysema, moving rather as a whole, and only 1 inch on deep inspiration, the percussion note being hyperresonant, and the heart overlaid with lung. The breath sounds were harsh. The apex beat could not be felt, and the heart sounds, though feeble, were normal. Posteriorly on the right side there was dullness over an area corresponding to the two intercostal spaces above the angle of the scapula, and between its posterior border and the dorsal spines; from the level of the spine of the scapula downwards, the breath sounds were tubular over the above dull area, harsh and attended with rhonchi elsewhere; over the base of the lung there were scattered moist crepitant râles. The vocal resonance was increased over this area. The suprascapular region and the left side of the chest gave normal physical signs. He brought up a quantity of foetid, frothy, rather watery sputum. The abdominal organs were normal. Urine acid, specific gravity 1010, it contained no albumen or sugar. He was treated with stimulant and expectorant mixtures, with creasote in a dose of mij every four hours, and with various antiseptic and deodorant inhalations.

On July 31st the patient had two epileptic fits, and the temperature rose in the evening to 104.4° . During the next three weeks of his stay in the hospital the patient made no progress. He suffered from violent paroxysms of cough, with the expectoration of a quantity of foetid sputum, from frequent attacks of vomiting, together with dyspnoea, profuse sweats, loss of flesh, and moderate pyrexia of irregular type, as shown in the accompanying chart. He took his food well.

On August 25th the patient was no better, but expressed himself as feeling fairly well except for the constant attacks of cough and the offensive expectoration. He was decidedly dusky and dyspnoeic, being unable to lie down comfortably. He sweated very profusely, and the breath was very offensive, having a faintly gangrenous odour. He was bringing up a quantity of most offensive sputum, about 12 to 16 ounces in the twenty-four hours; placed in a glass it separated into three layers, the uppermost frothy, the next a thick purulent layer, and the lowermost watery with muco-purulent masses floating in it. No tubercle bacilli were found in the sputum on several examinations. He complained of a sharp, "catching" pain in the interscapular region opposite the spine of the right scapula. Pulse 112, small but regular. Respiration 30, fairly easy. Tongue moist and clean. Skin rather greasy to the touch.

The left lung was normal. In front the resonance over the right side of the chest was higher in pitch than on the left side. Posteriorly on the right side dullness began at the level of the fourth dorsal spine, and extended to a little below the lower angle of the scapula and outwards to mid-way between the scapula and posterior axillary lines. Over this area the breath sounds were everywhere more or less tubular, accompanied by occasional moist crepitant râles,