principal unless the principal has employed him, knowing him to be incapable though qualified. And where, in a recent case, the plaintiff, a qualified medical man, sought to make the defendants, the governors of a hospital, liable for alleged negligence in conducting an operation upon him at the hospital, resulting in injury to his arm by burning and pressure while he was under the influence of an anaesthetic, it was held that the relationship of master and servant between the hospital staff and the governing body of the hospital did not exist, that if there was negligence, the operating surgeon who had control of the proceedings would be liable, but that the governors of the hospital were not liable for the negligence of the staff even if proved.

Relative Responsibility of the Surgeon and Anaesthetist.

There does not appear to be any recorded case in England in which either criminal proceedings for culpable negligence or a successful civil action has been brought against a medical man on account of a death resulting from or occurring whilst under the influence of a general anaesthetic, which is probably the reason why no authoritative ruling laying down the exact degree of responsibility attaching to the operator and the anaesthetist respectively has ever been given. In all probability each case would be left to the jury to be decided in the light of the particular circumstances, but as the question has been the subject of much recent discussion the following observations, though unsupported by direct authority, are submitted for consideration.

It is well understood in the profession that the administration of an anaesthetic is a grave and responsible duty requiring undivided attention and unremitting vigilance on the part of the administrator, who, as such, has nothing to do with the operation *per se*, except in so far as it affects the administration. If negligence be proved in respect of such administration, the medical practitioner actually administering the anaesthetic is liable, not the surgeon who is engaged in the operation. But if the surgeon take upon himself to decide the particular kind of anaesthetic to be employed, or the apparatus to be used, or the amount of anaesthetic to be administered, he would probably be held jointly responsible with the anaesthetist for any unfortunate result to the patient—assuming negligence to be proved. Liability as against the administrator might arise from omitting the duty of careful physical examination, of previous appropriate preparation, or from leaving the patient before the administrator has had reasonable grounds for assuring himself that the case could be so left in safety.

Liability, it is apprehended, might also arise from committing the irregularity of assisting the surgeon while engaged in the administration of the anaesthetic (urgent necessity excepted).

But where a nurse or student is engaged in the administration of an anaesthetic under the direct supervision of a medical man, there (it is apprehended) the relationship of master and servant exists, the nurse or student being under the direct control of the medical man as to method, quantity, and kind of anaesthetic employed; hence the qualified man is responsible. Where circumstances compel an operator to accept the services of an unskilled or non-professional person, the operator must take the entire responsibility of the administration.

It is customary, though not the invariable practice, for the surgeon to select the anaesthetist, and generally control the procedure of the operation. If an operating surgeon can be properly charged with selecting an anaesthetist who has not had sufficient experience to enable him to give the anaesthetic properly, in case of a fatal result the surgeon might be held liable.

But apart from gross negligence, which is probably of the rarest occurrence, it is submitted that attempts to make medical practitioners liable to legal consequences for deaths occurring while an anaesthetic is being administered would damage humanity at large.

Moreover, where pure anaesthetics are administered, it would be difficult, in view of the fact that differences of opinion exist as to the exact manner in which anaesthetics act, to state the precise mechanism of the fatal issue, and hence the extent of the responsibility of the administrator.

Consent.

The law extends its protection to all, not only against actual hurt and violence, but against every kind of bodily interference and restraint not justified or excused by allowed cause; and, speaking generally, and apart from certain statutory requirements under the Workmen's Compensation Acts, a medical practitioner has no right to treat in any way, or even examine another, without his consent (persons in the public service and convicted prisoners excepted); and, should he do so, this technically amounts to an assault, which may give rise either to criminal proceedings, or to a civil action for damages. Even in cases where the patient actually consents, if such consent is obtained by fraud on the part of the practitioner he is guilty of assault—for example, if a parturient woman consented to be attended in childbirth by a medical practitioner because she relied on his fraudulent statement that he had not been lately attending any cases of scarlet fever, his attendance on her under such circumstances would amount to an assault.

Nevertheless, there are also circumstances in which a man's person may have to be dealt with promptly for his own obvious good, but his consent, or the consent of anyone having lawful authority over him, cannot be obtained in time. And it is not an assault for a competent surgeon if he perceives that an operation ought forthwith to be performed to save life to perform it without consent, such being a work of charity and necessity.

Generally speaking, it is implied that the practitioner shall, so long as the relationship of doctor and patient exists, do all that is necessary in his opinion for the welfare of his patient, within his province, subject to the proviso that when a dangerous or extensive medical or surgical proceeding is contemplated, the patient ought to be warned of the possible consequences, and given an opportunity of declining to undergo the treatment proposed.

Where a practitioner is requested by a mistress to examine a servant who is believed to be pregnant, it is highly important to obtain the consent of the servant both to the examination and to the making known to the mistress the information gained thereby.

The great importance of obtaining consent to such surgical proceedings as may be found necessary is obvious in these days when "explorations" may reveal a state of things requiring subsequently prolonged and extensive surgical proceedings.

The law of England in its relation to medical men is not, as is too commonly supposed, a professional mystery, nor is it a collection of decisions which "squint both ways."

Though possibly uncertain in some few particulars and incomplete in others, yet, viewed as a whole, it takes full, and even generous, cognizance of the anxieties and difficulties inseparable from medical practice, and in its dealings with medicine, as with other arduous and honourable callings, it embodies those notions of fair play, justice, and humanity by which Englishmen are governed in their public and private affairs.

NOTES ON A THIRTY DAYS' FAST.

By F. PENNY, M.R.C.S.,
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These notes are from personal experience of myself, a medical man, aged 46, height 5 ft. 7 in., whose weight for years prior to 1905 had averaged 11 st. 3 lb. net. Since that date I have been a purin-free vegetarian, and have dropped about 10 to 14 lb. in weight.

I felt, and was considered to be, in fairly good condition, but I undertook this fast to endeavour to satisfy myself whether the accumulation of waste and unnecessary material in the system is the real cause of much disease, and whether a prolonged fast is a sound method of elimination and as such conducive to bettered health.

Most of my observations are tabulated, the measurements, weights, blood counts, etc., being checked by another medical man. The morning records were taken in bed about 9 a.m., and those of the evening between 10 and 11 p.m., before retiring. The respiratory count, being my own, may unconsciously have been modified for the occasion. The spirometer records were taken by a Lowne's spirometer, and, though relatively correct, I

Day of Fast.	Net Weight 142 lb.	Morning Observations taken about 9 a.m. before getting up.				Evening Observations taken about 10 to 11 p.m. before retiring.				Observations taken just after coming down in the Morning.			Exercise.		Drink: Aq. destill.	Urine.	
		Pulse.	Resp.	Mouth Temp.	Rectal Temp.	Pulse.	Resp.	Mouth Temp.	Rectal Temp.	Spirometer.	Dynamometer. R. Hand.	Dynamometer. L. Hand.	Walking.	Cycling.			
				°F.	°F.			°F.	°F.				Miles.	Miles.	Oz.	Oz.	Sp. gr.
1	137½	—	—	—	—	50	12	96.4	98.6	398	140	110	3	50	10	16	—
2	—	59	10	97.4	98.6	52	12	96.4	98	418	142	110	½	10	30	18	—
3	—	51	13	97	98	63	—	96	98	432	155	112	5½	—	20	32	—
4	132	52	15	96	97.8	45	—	95.2	98.4	422	145	117	6½	—	13	21	1022
5	—	45	13	95.2	98.8	72	—	96.4	98.4	412	150	130	3	13	45	18	1015
6	131½	44	12	96.8	97.8	74	16	96.8	99	410	157	127	6½	—	50	40	1015
7	128½	43	13	96.6	97.4	76	—	97.6	99.8	388	160	105	9	—	50	28	1028
8	—	43	14	96.4	97	46	14	96.8	98	406	135	105	2	8½	35	18	1033
9	—	44	11	96 2	97.2	48	12	96.8	98.4	385	160	115	3	13	45	16	1022
10	127½	42	11	96.4	97.2	48	13	96.8	98	412	160	118	7	—	40	42	1016
11	—	42	10	97	97.5	44	13	96.4	98	410	165	130	1	18	45	34	1016
12	126½	43	11	97	98	48	16	97	98.4	388	155	130	5	—	40	32	1016
13	—	39	11	96	96.8	45	12	96	97.8	402	170	132	6	—	45	55	1008
14	123	39	10	95 2	96.4	45	13	97	98	396	170	130	5	—	20	18	1020
15	—	39	10	95	96	44	12	96.8	99	382	170	120	7	2	40	21	1016
16	126½*	40	11	95.4	96.6	44	12	96.8	98.4	380	170	120	3	—	160	78	1008
17	—	42	10	95	96	53	12	96	98	390	160	118	6	—	30	28	1026
18	123½	39	11	94.6	96	46	11	96.4	98	388	160	120	3	—	70	48	1006
19	—	44	12	96	97	57	12	97.4	98.2	385	165	118	6	—	70	50	1010
20	—	42	11	95	96.4	49	13	97.4	98.4	375	160	125	5	—	60	56	1008
21	120¼	44	11	96	97	53	14	98.2	99	396	160	118	2	15	60	50	1006
22	—	46	11	96.5	97	53	14	98	98.6	395	155	120	4	2	50	48	—
23	—	44	11	96.5	97	52	14	97.6	97.8	395	170	115	1	8	50	52	1008
24	117	45	11	96	97	58	13	97.2	98.4	380	160	118	2	3	65	60	1006
25	—	44	11	95.8	96.6	52	13	97.6	98.8	360	155	115	2	—	50	40	1008
26	116	44	11	95.6	96.4	50	13	96.5	98	368	150	110	—	4	30	29	1010
27	—	44	11	95	96	50	14	96.4	98	365	150	105	2	8½	55	40	1008
28	—	43	11	95	95.6	65	13	96.8	98	333	140	110	2	—	45	38	1008
29	—	45	11	95	96	54	12	96,8	98	335	150	120	2	—	50	50	—
30	112¼	42	11	94.4	95.4	64	13	96.2	98	325	140	110	1	1	30	30	—
1	111¼	40	10	94	95.4	76	15	96.6	98	375	142	110	111	156			
2	113	48	12	95.4	96.4	80	—	97	98.4	385	140	105					

* Weight after drinking 4 pints.

consider them absurdly high, in spite of authoritative statements that the instrument gives correct readings. My respiratory capacity on a von Broeckmann's spirometer was before the fast 275 cub. in. and after its completion 255 cub. in.

My drink consisted of distilled water only, except that on the sixteenth day I added a little salt; on that day, as an experiment, I drank 8 pints.

Blood Counts taken on the Twelfth, Twentieth, and Thirtieth Days.

	Red Corpuscles.	White.	Polynuclears.	Large Mononuclears.	Lymphocytes.	Eosinophiles.
			Per Cent.	Per Cent.	Per Cent.	Per Cent.
Twelfth day	6,600,000	10,000	76	12	12	—
Twentieth day	7,000,000	11,000	76	18	6	—
Thirtieth day	6,000,000	8,800	70	20	7.5	1.5

200 corpuscles were counted on each occasion.

Haemoglobin varied from 104 to 112 per cent.

Blood pressure (taken by a Martin's modification of the Riva-Rocci sphygmomanometer) fell steadily during the fast from 110 to 90.

Measurements.

	Before.	After.
	Inches.	Inches.
Neck	15	13⅞
Chest expanded	38¾	35
Chest contracted	34½	31½
Abdomen	31	26½
Hips	35¾	32¾
Thigh	21	18
Calf	13½	12⅝
Ankle	8¼	7¾
Arm	13	11¼
Forearm	11¾	10½
Wrist	6¾	6½

My urine remained acid and clear until the twenty-second day, after which there were copious deposits of "uric acid crystals" and also of "urates." I had been subject to bouts of this sort for years whilst on a mixed

diet, but I shall be glad of the explanation of such an occurrence after a twenty-two days' fast. The bowels acted only after enemata, eight plain water ones being given. Three Turkish baths were taken to assist elimination.

My time was occupied chiefly in reading, exercise, and conversation. I retired generally between 10 and 11 p.m., and generally spent twelve to fourteen hours in bed with the windows wide open. My average loss of weight was 1 lb. a day. My exercise was walking three miles and a half and cycling five miles and one-fifth a day. After the first two days I felt no hunger. I suffered much from cold, especially in the feet and hands, probably to some extent due to my being too lightly clothed for this climate. At times I was very irritable. Throughout the fast my tongue was coated and my breath offensive. During the last eight days I had very little inclination for exertion of any kind.

This fast was broken on the completion of thirty days with 1 lb. of fruit, in spite of eating which my weight dropped 1 lb. during the next seventeen hours, and my urine was loaded with "urates." Then I took fuller meals of milk, rice, fruit, toast, honey, etc., and gained weight rapidly (4¾ lb. in two days). I then had some travelling to get through, and on the third day took a long railway journey, including crossing London; on the fourth day I cycled fifteen miles, and took another long railway journey, and during the following night I had acute dyspepsia with very violent diarrhoea, which latter continued, with intermissions, for three days. After this I ate well and steadily, gained weight (10 lb. in ten days). During the third week my mouth was very tender, and my sublingual glands were considerably swollen, and during this week I gained 3 lb. in weight.

For some days during the second and third weeks there was very free diuresis.

This fast was not carried to a finish—that is, until my tongue cleaned and natural hunger returned, as described by Dr. Dewey—and I have not yet completely satisfied myself with regard to the objects for which the fast was undertaken, but I hope for better success next time.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF TRUE ELEPHANTIASIS.

THE unfortunate young Zulu shown in the photograph was committed to gaol for a breach of the peace; his age is from 22 to 25; he is pleasant and intelligent and in good health, with the exception of the condition of his foot and leg. He was, he says, in a normal state of health up to 8 or 9 years of age, when the trouble commenced in his foot, and has gone on to its present state. He tells me that he is the only member of his family with this affection, and he has not heard of any ancestor being so troubled. He has a little pain at intervals, but, as a rule, beyond the weight and unwieldy condition, he is not troubled. I find there are two or three similar cases in this district, which is a small percentage, considering that there are about 30,000 natives in the Mapumulo division. Unfortunately I did not get a lateral picture, which would have shown more folds of hide-like skin so characteristic of the elephant.

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NAEVUS PIGMENTOSUS.

THE accompanying illustration shows an Armenian child, aged 2, who was seen by me in Ispahan, Persia. She was being taken to India to be exhibited. She is a bright, intelligent girl, rather fairer than is usual among children here. Large hairy moles cover a large portion of her body. There are considerably over 100 in all. The largest is on the left side, extending from the region of the left scapula behind to about 2 in. to the right of the umbilicus in front. In its widest part it measures 12 in., breadth 7 in., diagonally 17 in. There is a patch 5 in. by 4 in. on the right buttock. There is one tuft of hair above the left eyebrow, otherwise the face is normal. There are several moles on the scalp. Both labia have an outgrowth of hair on them. The moles on the legs are more pedunculated in character. The hair on the moles is about 1½ in. long and darker than that on the head. It is very fine.

The patient is the third of a family of four children. There is no hereditary history of naevus pigmentosus, nor of maternal impression.

ELIZ. N. MACBEAN ROSS, M.B., Ch.B.Glasg.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

KENSINGTON INFIRMARY.

EPITHELIOMA OF OESOPHAGUS IN A WOMAN AGED 26.

(By J. BASIL COOK, M.D., D.P.H., Senior Assistant Medical Officer.)

M. C., aged 26, was admitted on April 23rd, 1909, and died two days afterwards.

History.

She had been losing flesh for three months, and for the past seven weeks had experienced considerable difficulty in swallowing. There was no family history of cancer.

Condition on Admission.

She appeared very ill, was emaciated, and was quite unable to swallow solid food, and liquids only with difficulty. There was no coughing or regurgitation after swallowing, but she groaned both when awake and asleep. No history could be obtained of her having swallowed any hot or corrosive fluid; there was no evidence of syphilis, nor any sign of thoracic growth, aneurysm, or pharyngeal abscess. The heart and lungs were normal. There was some obstruction of the air passages as there was marked recession on inspiration. At the level of the cricoid cartilage there was a slight fullness of the throat, and about 2 in. lower down on the right side a small, hard gland was easily palpable. There was an offensive blood-stained discharge from the throat. An unsuccessful attempt was made to pass various sized bougies, which when withdrawn were bloodstained. The obstruction was opposite the cricoid cartilage. The patient was fed with nutrient enemata.

Post mortem there was an epitheliomatous growth completely surrounding the upper end of the oesophagus, and extending downwards for a distance of 4 in. Beyond the small gland in the right side of the neck there was no sign of secondary deposit anywhere. The thorax and the organs of the body were free. The tonsils were apparently healthy.

REMARKS.

This case is chiefly interesting on account of the rarity of the condition in so young an individual. Gastrostomy was contraindicated because of the grave condition of the patient. The offensive discharge and obstruction to the passage of a bougie enabled one to diagnose the case and to eliminate the hysterical dysphagia occasionally met with in young women.