A moulded splint for the upper surface of the forearm—raw hide, gutta-purcha, Gooch's, or pasteboard—should now be very carefully fitted and padded. The reason for so much care in preparing this is that here is the point of greatest pressure, as extension is made by strapping the forearm down to the horizontal limb of the splint. A moment's consideration will show that very effectual counter-extension is made by the elasticity of the skin to which the shoulder arch is strapped.

The broken humerus is now set, and while an assistant makes steady pressure on the arm, with the elbow bent to a right angle, palm up, and approximates the moulded splint to the iron one, the surgeon secures the position by a couple of broad strips of plaster. If necessary or desirable short coaptation splints may now be applied to any or all aspects of the limb, and secured by strapping or bandage to the vertical portion of the splint. These give a sense of security to the patient, but I have treated many fractures of the humerus satisfactorily with no more complicated apparatus than is shown in the figures.

In the case of multiple, compound, or complicated fractures, the fixation and extension afforded by this splint may be supplemented by plaster-of-paris, starch, or other fixed dressings, appropriately "trapped" to afford access to wounds, etc.

When the fracture is situated at or below the middle of the humerus, the simpler form of the original splint (Fig. 2), in which the shoulder portion merely projects towards the base of the neck, while the vertical portion occupies the outer aspect of the arm, will be found to answer every requirement. When, however, the lesion is in any part of the humerus above the middle, and firm fixation of the shoulder-joint becomes increasingly important, the additional security afforded by the arch (Fig. 1) will be found to be of great advantage.

With the possible—though doubtful—exception of avulsion of the greater tuberosity, I believe there is no fracture of the humerus—shaft, upper or lower extremity—which cannot be treated satisfactorily by means of this splint. And without expecting that all surgeons will agree with me, I do not hesitate to express my preference for this over all other splints for any fracture of the humerus. Its unquestionable power of making extension enables us to enlist by its use the moulding power of the extended muscles, and to appreciate the value of this one need only consider for a moment the excellent fit of the tense deltoid as a shoulder cap, and the support afforded by the bulky muscles, which almost surround the shaft of the bone. In fractures of the condyles, or in T-shaped fractures into the elbow-joint, the control which may be obtained by the use of this splint of the bones of the forearm, and through them of the fragments, constitutes one of the most valuable applications of the splint. In dislocations forwards of the radius also, the difficulty of overcoming the action of the biceps in reproducing the dislocation is met by its judicious use.

ADVANTAGES CLAIMED FOR THE SPLINT.

It is the only splint described (so far as I know) which furnishes in itself the means of making effectual extension of the muscles of the arm.

It is cool, light, and affords ready means of examining the parts during healing, with the minimum of disturbance.

It permits the direct application of evaporating lotions or the cold coil where indicated.

In compound fractures ready access may be obtained to the wounds, and if the iron of the splint be brushed over with melted paraffin it can be readily rendered aseptic, and lotions and discharges leave it unaffected.

BEATTY v. CULLINGWORTH.—The plaintiff in this case having presented a petition for leave to prosecute an appeal before the House of Lords *in forma pauperis*, the matter was referred, according to the usual course, to the Appeal Committee, and was duly considered at a sitting of the Committee held on Thursday, May 27th. The petition was dismissed. The result of this decision is that if the plaintiff persists in her intention of bringing her case before the House of Lords she will have to conform to the ordinary rules, one of which involves the payment of a substantial deposit (£200) as a preliminary proceeding.

INTUBATION AND ANTITOXIN.

By J. C. CONNELL, M.A., M.D.,

Laryngologist to the Kingston (Toronto) General Hospital; Professor of Ophthalmology in Queen's University.

IN conversation with Dr. O'Dwyer last October, he expressed the opinion that the early use of antitoxin in laryngeal diphtheria would entirely remove the necessity for intubation. My experience of the past winter does not lead me to accept this extreme view, but it goes to prove that the period of intubation is materially reduced by the use of antitoxin.

In the General Hospital since last October I have intubated 12 cases of laryngeal diphtheria, and in addition 4 cases in the Hôtel Dieu and 2 in private houses, making 18 in all. There were no fatal cases in the hospital, and of the others 2 died. Neither of the fatal cases received any antitoxin. One began as bronchitis, and after four days developed laryngitis, with some membrane on the tonsils and pharynx. Intubation did not give much relief, and death followed twelve hours later. The other fatal case began as a tonsillar and pharyngeal diphtheria. No antitoxin was used, but the membrane disappeared about the sixth day. On the ninth day, when I first saw the case, laryngitis had developed with the secondary formation of membrane. Intubation relieved the dyspnoea, but death took place twelve hours later from cardiac paralysis.

The following table shows the duration of the illness before the use of antitoxin, the amount of antitoxin used and the number of injections, the period of intubation, and the frequency of reintubation:

Case.	Age.	Duration of Illness before Use of Antitoxin.	Antitoxin.		Period of Intubation.	Reintubation.
			No. of Injections.	Total Amount.		
1	Mths.	4 days	2	2,000 units	9 days	Twice.
2	7 0	1 day	2	1,000 "	30 hours	"
3	3 6	1 "	1	1,000 "	6 1/2 "	"
4	3 7	2 days	2	2,000 "	5 1/2 days	Once.
5	0 0	1 day	1	1,000 "	1 1/2 "	"
6	3 1	3 days	1	1,000 "	4 "	Once.
7	5 0	2 "	1	1,000 "	2 "	"
8	10 0	No antitoxin	—	—	3 1/2 "	"
9	3 3	2 days	1	1,000 "	4 "	"
10	3 6	No antitoxin	—	—	Death in 12 hours	"
11	5 0	1 day	3	2,500 "	3 days	Twice.
12	3 6	1 "	1	1,000 "	2 "	"
13	6 0	No antitoxin	—	—	2 "	"
14	4 0	"	—	—	Death in 12 hours	—
15	6 2	1 day	1	1,000 "	2 days	"
16	2 6	1 "	1	1,000 "	3 "	Once.
17	7 0	1/2 "	1	1,000 "	1 1/2 "	"
18	2 6	1 "	1	1,000 "	3 1/2 "	Once.

It will be noticed that, of the 4 cases in which no antitoxin was used, 2 recovered and 2 died. The average period of intubation in the 16 cases of recovery is three days. In 2 cases twelve hours elapsed between the injection of antitoxin and the operation. In all the others there was an interval of a few minutes only. All were fed by means of the catheter through the nose. This method I believe to be the best, as it ensures a sufficient quantity of nourishment without effort on the part of the patient, and without producing exhaustion from coughing. Usually after the second introduction of the catheter no resistance is offered. The other treatment consisted in the use of calomel, chiefly by sublimation. No local applications were made.

My experience in these cases leads me to consider it advisable to extubate after thirty-six or forty-eight hours. This is the time when, by the action of the antitoxin, the membrane is being thrown off. It may be unnecessary to reintubate. At any rate, it is usual to see a great deal of membrane coughed up immediately after the removal of the tube, and if dyspnoea returns and it must be replaced there is less coughing and less danger of plugging of the tube.