should not surpass the wit of man to find a remedy. I am quite aware of the difficulties that meet the individual practitioner. I have been too long a general practitioner, before specialising, to have missed my share of those experiences, and perhaps it may raise a smile if I say, from that point of view, "that the gossips being uneasy," in the language of Smellie, is one of the real difficulties in the way of reform, if by "gossips" we mean those interested in the patient, who may have some sort of right to ask questions, or claim the privilege of offering well-meant but ignorant suggestions concerning the "exhausted" condition of some vigorous young woman in the first hours of a normal labour. It is only the formation of a strong professional opinion, and then a public opinion that will enable the individual practitioner to hold on to the proper course without ruinous injury to his professional position and character. But I believe that just as twenty years ago we met with men who feared to suture a spontaneously lacerated perineum, lest they should be blamed for producing the injury, and now among their successors we meet with few who would not fear to be blamed if they did not suture such a lacerated perineum, so the same process of formation of opinion by the practice of men of clear views and strong will, with regard to the use of the forceps, would bring about a similar reform.

Among the causes which give rise to the present abuses must be put in a high place our over-confidence in antiseptics. Too many of our practitioners think that they can do anything in the way of manipulation, digital or instrumental, if only they use some chemical solution with sufficient copiousness. This, I am afraid, is a fatal delusion. Such, at least, is the conclusion I am compelled to draw from my own experience of cases of puerperal fever seen in consultation. It is a pathetic and humiliating sight to see a healthy young woman dying in childbed, with her little wedding presents as yet untarnished around her, because the medical attendant has thought it right to risk the production of injuries in a first and normal labour under the mistaken impression that he can prevent bacterial invasion by means of some weak solution of permanganate of potash or mercury or other chemical which he calls an antiseptic. I believe in antiseptics certainly, but my faith does not carry me to the extreme point of the schoolboy's definition as the faculty of believing what we know cannot be true.

But the great difficulty in the way of either prevention or reform of abuses is the want of systematic practical instruction in our maternity hospitals, the absence of the precept and example of the best available men at the bedside. The consequence is that our young medical practitioners at the commencement of their careers have to learn midwifery by a process which amounts to involuntary experiment upon their patients. While the German medical student learns midwifery and gynaecology as he learns surgery, and the subject ranks with medicine and surgery in the examinations, we are still content to insist, as far as practical instruction in obstetrics is concerned, merely upon a formal compliance with certain regulations which do not necessarily imply practical knowledge worthy of the name.

The solution of the problem before us must sooner or later be attempted. That problem is, How are we to proceed in order to reconcile the avoidance of injuries to our patients which may carry important consequences to life and health in their train with the use of the scientific resources of our generation, which should enable us, under proper safeguards, to soothe and curtail the mental and physical sufferings which at the best are inherent in the process of parturition?

CREMATION IN GREAT BRITAIN—According to Mr. A. Spencer, Chief Officer of the Public Control Department of the London County Council (as quoted in the *Daily News* of August 18th), cremation seems to make slow progress in this country. "Public opinion," he says, "on the subject of cremation in this country can be gauged by the fact that there are only four public crematoria in Great Britain. The number of cremations at these in the year ending March 31st last were: Woking, 137; Manchester, 52; Glasgow, 11; and Liverpool, 2. The crematorium at Liverpool was only opened in September last."

NOTE ON THE ANTIVENOMOUS AND ANTI-TOXIC QUALITIES OF THE BILE OF SERPENTS AND OF OTHER ANIMALS.

By PROFESSOR FRASER, M.D., F.R.S., F.R.C.P.E.

IN a paper recently published in the *BRITISH MEDICAL JOURNAL* (July 17th, 1897), in which it was shown that bile is able to prevent death from lethal doses of venom, the conviction was expressed that bile would be found also to possess antitoxic properties against the toxins of disease, such as of diphtheria, tetanus, etc. Experimental evidence in confirmation of this conviction has since been obtained.

Thus there was given by subcutaneous injection to a rabbit 0.15 c.cm. per kilo. of diphtheria toxin mixed with 0.05 gramme per kilo. of the dried bile of normal rabbits, and to a second rabbit also 0.15 c.cm. per kilo. of diphtheria toxin, but mixed with 0.025 gramme per kilo. of rabbit's bile. No remarkable symptoms were produced except a temporary rise of temperature, and both animals are now in good health (a month after the injections had been made), and both have gained in weight.

The toxin employed was kindly given to me by Dr. Noel Paton, Superintendent of the Research Laboratories of the Edinburgh Colleges. Portions of the same toxin were also injected without bile under the skin of three rabbits, one receiving 0.15 c.cm., the second 0.075 c.cm., and the third 0.05 c.cm. per kilo.; and all these rabbits have died, the first in from two to three days, the second in from eight to nine days, and the third in from ten to eleven days.

In the paper referred to it was shown that there is present in the bile of serpents a constituent or constituents, the process for whose separation was described, which possesses in a concentrated form the antidotal qualities of the bile itself. By a similar process there has now been separated from the bile of the ox a constituent which likewise possesses antivenomous qualities in a more powerful degree than the original bile. Experiments with this product have as yet been made only on white rats. They show that slightly larger than the minimum lethal dose of Indian cobra venom can be rendered non-lethal when mixed with so small quantities of this ox bile product as 0.004 g., 0.003 g., 0.002 g., and 0.001 g. per kilo. These quantities, though small, are not, however, so minute as the quantities effectively antivenomous in similar circumstances of the product derived from the bile of venomous serpents.

The evidence already obtained, no doubt suggesting extension and elaboration in various directions, seems, therefore, sufficient to establish that in addition to its generally recognised functions bile possesses the power of rendering inert such organic poisons as venoms and disease toxins.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE OF CARBOLIC ACID POISONING TREATED WITH VINEGAR: RECOVERY.

THE patient was a servant girl, aged 18. On August 3rd, 1896, a medical man was called in to see her at 8.30 A.M. He was told that she was subject to "fits," and that she had just had one. She was then in a semiconscious condition, frothing at the mouth. She had vomited slightly; the vomit, it is stated, having a sour smell, but no carbolic acid odour was observed. She appeared to be coming round, and a "bromide draught" was administered. She was then sent home in a cab. She gradually got worse, and another medical man who was passing the house was called in. He diagnosed carbolic acid poisoning. Failing to rouse her or get her to swallow anything, he ordered her to the hospital.

On admission at 11.45 she was quite unconscious, cyanosed, and nearly pulseless. The lips and tongue were discoloured, and the breath had a slight carbolic acid odour. I gave her a