

means, or by culpable or negligent conduct, either on the part of the deceased or of others, and leaving the question of investigation entirely in the hands of the authorities of the law, whose duty it is to ferret out crime and punish it.

The certificates of death which a medical man, under such conditions, must falsify or couch in such language as to throw the guardians of cemeteries and other officials off the track, would go far to bring home criminal intention on his part, for

the law would look upon such a deliberate act as a writing as a most compromising one, and which he would find it very difficult to palliate and impossible to deny. When a physician does anything wrong to help out those with whom he comes in contact professionally, if he is found out, he will get very little sympathy from the very persons he serves and none at all from the public. Those who expect it when they compromise themselves may live to be sadly disappointed.

**Chloroform or Ether?** Under this caption, Professor J. Mikulicz, of Breslau, discusses in a very impartial spirit the much-disputed question as to the relative danger as anaesthetics of chloroform and ether. He begins by referring to a paper by Gurlt, read before the German Surgical Society (*Verh. der Deutsch. Ges. Chir.*, 1893, ii. S. 8). In this paper, Gurlt gave statistics in 1893, showing that in 133,729 chloroformizations there occurred 46 deaths, or 1 to 2,907 anaesthetics: whereas in 14,646 etherizations there occurred only 1 death. Gurlt's warning that ether was much the safer anaesthetic naturally led to a much more extended use of it, the statistics in the last report (*ibid.*, 1894, ii. S. 11) showing 1 death in 13,160 etherizations, as against 1 in 2,647 chloroformizations. The statistics seemed so favorable to ether that Mikulicz also began to employ it; but his results, especially after etherization, contraindicated the lauded harmlessness of ether, and he has been induced to return to chloroform. The ether employed was Merck's; it was administered by means of Juillard's mask, and the directions followed were those of Garré. Mikulicz was especially careful in the choice of cases. It was not given to any suffering with serious affection of the air-passages, nor to small children, old, weak persons, nor to those with weak hearts or highly anæmic. After referring to the fact that etherization is disagreeable, he remarks that this is insignificant when the life of the patient is in danger. Mikulicz then reports his unfortunate experiences with ether. The first group of cases is one in which asphyxia occurred during etherization, and includes three cases. The pulse and respiration ceased, but the patients recovered. The second group includes two cases in which collapse occurred after etherization. After artificial respira-

tion and injections of camphor, the patients reacted. The third group includes four cases of acute bronchitis; all recovered. The fourth group includes two cases of pulmonary oedema and pneumonia; one of these proved fatal. The operation had been done for stenosis of the oesophagus; etherization lasted sixty-five minutes, 175 cubic centimetres of ether being consumed. Death occurred on the twelfth day after operation. No autopsy. Mikulicz insists that these cases of bad effects from ether show that it must be given with as much care as chloroform and by a skilled physician. Whether the dangers of late collapse and ether pneumonia are as great as he fears cannot be answered from existing statistics, as deaths occurring late are either not mentioned or only mentioned incidentally. Poppert, however, reports a death occurring two hours after the end of etherization, with symptoms of acute oedema of the lungs. Poppert also collects from the literature seven cases of oedema of the lungs which proved fatal either a short time after etherization or in several hours,—in one case seventeen, and in another thirty-two hours. The same author finds in Gurlt's last report eight cases, as follows: 1, a case of pulmonary oedema (Trendelenburg); 2, two cases of late collapse (Rehn, after thirty hours; Trendelenburg, after two hours); 3, five cases of pneumonia (Bessel-Hagen, one; Czerny and Riedel, each two cases). In addition to these eight cases, a case of late collapse occurred in the Bonn clinic, and nearly ended fatally. It follows, therefore, says Mikulicz, (1) that ether has dangers which have not been considered in the statistics up to the present time, and (2) that the lessened danger of etherization, as compared with chloroformization, has not been proved.—*Therapeutic Gazette*.