

ter limited his position to the following assertion:—"That the product had caused the death of the dog inoculated with it, but that the death was not such as digitaline would have produced; and that, instead of concluding digitaline was present in it, we ought logically to conclude that it was not."

An objection was also made to the evidence derived from the shavings of the floor, on the ground that the apartment had been previously occupied by a photographer, and that some of the chemicals used in his business might have fallen and remained on the floor. The matters, examined however, were found to have been recently spilt. The photographer had not occupied the apartment for three months previously. Analysis gave no evidence of a salt of silver or of any mineral substance, whilst such substances as the cyanide of potassium, which are used in photography, would have become long before decomposed.

The evidence of MM. Claude Bernard, Vulpian, Bouley, and Reynal was taken on the question raised by M. Hébert, whether after poisoning by digitaline, the heart was contracted as asserted by the experts, or dilated as stated by M. Hébert. M. Claude Bernard stated, as the result of his experiments, that in the higher animals, when poisoned by digitaline, there is at first agitation, then after some hours, death takes place suddenly, as if from syncope. A particular characteristic of poisoning by this substance is that immediately after death red arterialised blood continues to be poured into the left cavities of the heart, because respiration continues after the complete arrest of the cardiac pulsations. Death, therefore, occurs from the cessation of the heart's action, and at first the organ is dilated by the blood which continues to flow into its cavities. But cadaveric rigidity follows much more rapidly in the muscular structure of the heart than in the other muscles of the organism. Contraction of the ventricles, therefore, rapidly replaces the dilatation, and in the course of a very few minutes they empty themselves of the blood which has been poured into them. A quarter of an hour after death the state of contraction is clearly manifest, and the rigidity continues. In answer to questions put by M. Hébert, M. Claude Bernard said that there was nothing in the condition of the dog poisoned in the first experiment which appeared to him to contra-indicate the idea of poisoning by digitaline. But the experiment would have been more convincing had the autopsy been made a few minutes instead of two hours after death. In his experience there is often in poisoning by digitaline at first an acceleration of the heart's movements, but that finally retardation sets in, and continues to increase until complete arrest terminates life.

M. Vulpian's evidence referred to the effect of digitaline on frogs. He