fit to pass, they cheat themselves a hundred times more. What is the incentive? It is simply that, as a result of possessing our diploma, they are enabled in many States to practise. If they could not practise under that diploma—if it only stated that these gentlemen have been sufficiently prepared to come before your Examining Boards and take your examination, that we have examined them and think they are capable of passing your examination easily--if these men, having passed our examination, could not practise till they had passed your Examining Boards, don't you suppose they would embrace the opportunities to learn what we give them ? Don't you suppose they would learn how to prepare cavities, and take impressions, and swage plates, and grind teeth? Of course they would, because their right to practise would depend on their ability to demonstrate their knowledge of these things before you.—*Items of Interest*.

## Anæsthetics, and the Physiology of the Heart.

At the regular meeting of the Odontological Society of Great Britain, last December, a very concise and scientific paper was read by John W. Pickering, D.Sc. (Lond.), on the "Physiology of the Heart in relation to Anæsthetics," treating the subject from an experimental standpoint. The author showed that the following are some of the possible modes of action on the heart :

(1) The anæsthetic acts on the cardiac muscle itself, and may directly paralyze its contractile power.

(2) That the paralysis of the heart when present, is due to the action of the anæsthetic of the intrinsic cardiac nervous mechanism.

(3) That chloroform syncope is due to a reflex cardiac inhibition caused by irritation of the nerve ending of the vagi in the lungs.

(4) That chloroform primarily paralyzes the respiratory centre in the medulla oblongata, and that the consequent asphyxial condition of the blood secondarily paralyzes the heart.

(5) That cardiac dilation, when present, is due to pulmonary obstruction, and that chloroform has no specific action on the heart.

This last view, however, has been rendered improbable by recent experiments, which have shown that chloroform will produce dilatation of *both sides* of the heart.

Dr. Pickering experimented on the hearts of embryos previous to the development of a functional nervous mechanism—the chick embryo between the fiftieth and eightieth hour of incubation presenting an accessible form of heart or nervous system. Though

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