then a considerably longer time of exposure can be given. Exactly how much this may be is a matter of somewhat complex calculation, involving our knowing the size of the object, its angular direction of movement, as well as distance and speed of movement.

The foregaing nate presumoses the ob-

The foregoing note presupposes the object is moving evenly and uniformly,

much in the same way that the head and body of a quietly-walking figure move. But although the body moves practically uniformly, the legs and feet move at varying speeds. There is a brief instant when each foot is practically at rest on the ground, and another instant of maximum motion, much in the same way that a clock pendulum is at rest for an

instant at each end of its swing, while its greatest speed is when the "bob" is at its lowest point. Now a close observation of the movement of many animals will show that there are certain brief instants when the general motion of the limbs reaches a maximum and minimum, and the photographer may get a considerable relvantage by seizing the instant of least movement. The same remark applies to many human movements, for example, in a boat's crew of carsmen the propitious moments are the beginning and the end of the stroke. Again, in the case of breaking waves a few moments' observation leads one to infer that two extra big waves seldom follow each other. One can hardly lay down any rule as to every third, seventh, minth, wave being extra big, as is sometimes done, but they certainly do follow each other in cycles of ascending and descending variations. Also in a big splash there is often just one very brief instant when motion seems to be arrested or unspended, as though to invite the camera man to make the exposure.

Oxygen for Athletes.

The use of oxygen promises to produce some remarkable developments in the world of athletics, especially in connection with those events in which "the breath is the thing," as, for instance, breath is the thing," as, for instance, running. As everyone knows, athletes, however well trained, often find themselves very distressed during and after a race, as witness the instance of Dorando and several others who covered the Marathon course in the recent Olympic games. For some time past a number of eminent physiologists have been investigating the causes of dyspnoea, or hard breathing, and experiments which have been made with oxygen have brought about some very remarkable results. Mr Leonard Hill, of the London Hospital, who is well known in connection with his who is well known in connection with his experiments in regard to high pressure in diving, has taken the matter up. With the assistance of Mr Flack, his demonstrator, and Mr Just, a noted runner-

replete

Commercial



THE QUEEN OF SPAIN.

The latest portrait of Her Majesty, who has just been on a visit to her people in England, accompanied by her two babies.



THE LITTLE NURSE. Photograph by Ellerbeck, Newton, Auckland.



