

stantinople, which is so great a rarity that one is apt to treat it as a fable, and wait for the confirmation of one's eyesight. It belongs to the narcissus kind of bulbs, and bears the botanical name of "ophrys mouche." There were three naked flowers on the stalk hanging on one side; the underneath one was fading, while the two other were in all their beauty. They represented a perfect humming bird. The breast of bright emerald green is a complete copy of this bird, and the throat, head, beak and eyes are a most perfect imitation. The hinder part of the body, and the two outstretched wings are bright rose colour one might almost say flesh coloured. On the abdomen rests the whole propagative apparatus, of a deep dark brown tint, in the form of a two winged gad-fly.

DUGONG OIL.—Attention has been recalled, by the contents of the Queensland Annexe at the International Exhibition, to the medical uses of the dugong oil. It has been declared to possess all the nutritive qualities of cod-liver oil, and to be equally useful in all the forms of tuberculous and wasting diseases which are benefited by the administration of cod oil. It is alleged to possess an actually agreeable flavour, to be pleasant as an article of food, and to be acceptable to those whose stomachs reject cod-oil. At a recent dinner in the Annexe the pastry was made with dugong oil, and pronounced excellent. This should make it a valuable medicine, and one which might with advantage, be introduced into practical use by prescribing physicians in this country.

PHOTOGRAPHING THE PULSE.—The ingenious apparatus invented by Dr. Ozanam of Paris, for rendering the variable beatings of the pulse visible, is already proving itself of practical value. It consists of a camera lucida, about ten inches wide, in which a piece of mechanism, moving at a uniform rate, pushes a glass-plate, prepared with collodion, in front of a very narrow aperture exposed to the light. In this aperture is a glass tube, in which a column of mercury may rise or fall, as in a thermometer. By attaching to the wrist a rubber tube, filled with mercury, in connection with the tube of the apparatus, the beating of the pulse is received on this artificial artery, and the pulsations are transmitted to the recording apparatus. As the column in the tube acts as a screen, light can penetrate the aperture only where the column is deficient; consequently the prepared plate becomes black under the influence of light everywhere except at such places as the column intercepts it. As the column rises and falls with each pulsation of the heart, these black lines on the prepared plate, pushed regularly forward, will be longer or shorter alternately, and will be successively photographed as being lines perpendicular to a common base, the heart being thus made to register photographically its own pulsations. These photographic representations can be so magnified as to be rendered visible across a large amphitheatre; and such is the pecu-

liarity of the apparatus, in its adaptation to different uses, that it may be modified so as to register the variations of respiration, the irregular action of coughing, and similar physiological and pathological phenomena.

PAPER CAR-WHEELS.—The *National Car Builder* describes railway car-wheels of paper. The material, it says, is straw-board, in all respects the same as that used in the manufacture of paper boxes, and may be made of wheat, rye, or oat straw:—"The wheels constructed of it possess some very requisite and desirable qualities,—a perfect form, considerable elasticity, great strength and durability, and a facility of repair which is entirely wanting in a chilled wheel. These points, together with the method of construction and the peculiar nature of the material, make these wheels worthy of attention." The tyre, however, is of steel, and covering the whole of each side of the wheel are two side-plates of Norway iron boiler-plate, which fit against a shoulder turned in the tyre. The paper framework is said to give elasticity to the cars in motion, and "deadens the jar." Trains have been run at the rate of thirty miles an hour with these wheels, which are said to be very strong and lasting.

POTASSIUM.—Professor A. E. Dalbier describes a new process for preparing this metal, which may prove of great commercial value. He first forms sulphide of potassium by treating dissolved sticks of caustic potassa with sulphuretted hydrogen, and subsequently evaporating until the mass was solid in cooling. This mass was then mixed with somewhat more than its bulk of iron filings and subjected to distillation, the product being led into petroleum. The reagents used in this process are low in price; the process seems to be a very sensible one, and worthy of trial on the commercial scale.

FINS.—A French inventor has patented an apparatus for swimmers. For the hands he has a large membranous fin, which is held in its place by loops passing over the fingers and a strap around the wrist. The surface presented to the water by these fins is so large as to add greatly to the effectiveness of the strokes of the arm, but not so large as to exhaust the muscular power. Their effect is to reduce very much the effort required to swim without them. But the greatest ingenuity is displayed in the form and fitness of the fins for the legs, which are attached to the ankles, and are so formed that they act upon the water, both in the movement of bringing the legs together and throwing them back. They act so finely in "treading water," as swimmers call it, that one could really walk, if not on the water, at least in it. The difference between swimming with this apparatus and without it, is very much like the handle and the blade of an oar. The old swimmer has no trouble in using the fins at first trial, and is surprised to find with what ease he can swim without exhaustion. He easily swims twice as fast with the apparatus as without it, and he can sustain himself for hours upon the water or swim miles with it.