most helpful in England and Scotland, especially in the great centres of population. We again congratulate the Women's National Health Association of Ireland on having inaugurated such an exhibition and we shall watch with great interest any further development in its progress.

THE RISKS OF MEDICAL PRACTICE.

EVERY medical man knows that both he and his fellows run daily risks of which the average layman is quite ignorant, and it is only when a startling tragedy such as recently occurred in Leeds is reported that the populace at large is aware of how a medical man takes his life in his hands, when, for example, he is dealing with a patient of unbalanced brain. Dr. Walter Clapham Hirst, a young practitioner of Leeds, was on the morning of Saturday, August 31st, shot dead at his surgery door by one of his patients named John William Harrison, who immediately after the murder committed suicide. Dr. Hirst had recently been attending Harrison whose mental condition was obviously unstable, for only two days before the tragedy a friend of Harrison received a letter from him stating that he was suffering "all through calling in that doctor who struck me on both my knees which if you will enquire brings on terrific epileptic fits." It is quite evident from this that Dr. Hirst had been testing the patient's patellar reflexes. This apparently preyed upon Harrison's mind and early on Saturday morning he called at Dr. Hirst's house, who came down to answer the night bell. Nobody saw exactly what happened, but the neighbours heard gunshots, and when they arrived they found the two bodies lying close to one another. At the inquest held on Sept. 2nd the jury found that Harrison had committed murder and had afterwards committed suicide. The jury added a rider that in their opinion there had been neglect on the part of Harrison's friends in not looking after him better. One specially sad feature of the tragedy is that Dr. Hirst had only been married for two months; and to his widow we tender our respectful sympathy in her terrible trial.

THE SOLUBILITY OF AIR IN FATS AND ITS RELATION TO CAISSON DISEASE.

THE view that the symptoms produced by withdrawing the body from high atmospheric pressure and restoring it to low or normal pressure are due to liberation of bubbles of gas is confirmed in an interesting series of experiments recorded in a paper which under the above heading we print elsewhere in our present number. The writer of the paper, Dr. Horace M. Vernon, experimented with olive oil, cod-liver oil, and lard, with the result that he found that in spite of the very different composition of these three fats the solubility of oxygen and nitrogen was practically the same, and, moreover, that this solubility is the same at temperatures of 37° C. and 15° C. respectively. It is therefore fair to assume that human fat would behave similarly and the proportion of unsaturated acids present in a fat appears to have little or no influence upon its solvent powers for oxygen and nitrogen. Taking a mean of all the values obtained with cod-liver oil and olive oil at 37° C. and with lard at 45° C., the solubility of oxygen was found to be 4·5 times greater than in water and that of nitrogen 5·3 times greater. It has been shown that blood plasma and blood dissolve distinctly less nitrogen than an equal volume of water, and hence it may be concluded that at body temperature the fat of mammals dissolves at least five times as much nitrogen as water or as blood and blood plasma. Dr. Vernon points out that the bearing of these results upon many phases of caisson disease is probably a direct one. Necropsies have shown softening of some inches of the spinal cord in the dorsal region, signs of myelitis, and irregular fissures in the mid-dorsal cord, probably produced by the escape of gas. Similarly divers have exhibited necrobiosis and hæmorrhages in the spinal cord and distension of the blood-vessels by air bubbles. The injury produced on fat-containing tissues is thus explained by the ready solubility of nitrogen in the fat of these tissues, and caisson disease would appear to have its origin in the liberation of gas bubbles from these fatty tissues which occurs when the high atmospheric pressure is withdrawn. Dr. Vernon may be congratulated on having made an interesting and important note on the causation of caisson disease.

DANGER IN THE COFFEE URN.

MOST persons are familiar with the steaming urn which now is invariably to be found on the counter of refreshment-rooms, and the majority of these vessels cannot be a source of danger to the patrons of the café or restaurant, being merely open boilers, provided apparently with plenty of room for the escape of steam. While that description applies to the urn which is used for merely heating water it does not apply, it would seem, to the urn used for making coffee. The coffee urn consists of two compartments, the lower one containing the boiling water and the upper one the coffee, placed in a gauze strainer. As soon as the water boils it is forced up a narrow tube and distributed over the coffee. There is thus a more or less continuous process of hot percolation going on which is calculated thoroughly to exhaust the coffee. Doubtless the temperature of the liquid is also higher than ordinary boiling point on account of increased pressure. The vulnerable point in this apparatus is, however, the narrow tube which serves to convey the boiling water and to distribute it over the coffee. It is obvious that if this tube should get choked there would be no escape of steam and pressure would rise in the lower container until at last relief would be obtained by the urn bursting, and the result would be a miniature boiler explosion. This is not mere speculation, for a case of exactly this kind occurred recently at Bradford which unfortunately caused the death of a woman who happened to be present at the time of the explosion. Had the place been filled with customers the result would most probably have been still more serious. There is evidently danger in the coffee urn, and it seems to us that the Board of Trade might insist upon these much used appliances being fitted with some safety contrivance, or at any rate being so constructed that the great potentialities of steam in them may not be allowed to reach a dangerous point.

HÆMOLYSIS IN TYPHOID FEVER.

THAT the typhoid bacillus can form a hæmolytic substance has been demonstrated *in vitro* by E. Levy for the blood of the dog. In the course of an instructive paper by Professor M. B. Schmidt of Zürich, published in the *Centralblatt für Allgemeine Pathologie und Pathologische Anatomie* of August 15th, some interesting observations are recorded which tend to show that a destruction of red blood corpuscles can occur in the course of the disease in man. In 11 out of 13 fatal cases examined for this purpose signs of hæmolysis were discovered. In the spleen an accumulation of cells containing red blood corpuscles or hæmosiderin was found in the pulp or even free pigment masses. In the liver free hæmosiderin granules were found in the lobules, usually in the liver cells or in Kupffer's stellate cells, and occasionally in the connective tissue of the liver. Pigment was never found in Glisson's capsule. Such a deposit of pigment in the liver in young children Professor Schmidt regards as physiological, since he has repeatedly observed it in cases when there was no ground for suspecting any pathological condition of the blood, but even in children