

"CATCHING COLD."

IN this changeable climate of ours, hardly a week passes without ourselves or some of our acquaintances catching a cold. Our opportunities of studying the pathology of colds are thus only too numerous, and yet we know so little about it, that he must either be a very wise or a very rash man who will undertake to say why exposure to an east wind will give coryza to one man, sore-throat to a second, bronchitis to a third, and so on. Almost all that can be stated about the matter with any degree of certainty is, that the diseases just mentioned, as well as a good many others which are all popularly ascribed to cold, are liable to come on after the whole body, or parts of it, such as the feet, have been quickly cooled below the normal, or, in other words, have been chilled. There are always two factors concerned in the cooling either of the body or of its parts. One of these is the nature of the external medium, such as air or water, which is in contact with the body; and the other is the condition of the blood-vessels, by which the warm blood is brought from the interior of the body to the surface, and thus exposed to the influence of cold. Dry air has so little power to abstract heat, that Arctic travellers can go about comfortably without a great coat when the thermometer is standing fifty degrees below zero, provided that the air be still. A very little wind is sufficient to prevent them from doing this, however, for the constant impact of fresh particles of cold air on the surface of the body soon carries off its heat. The presence of moisture in the air greatly increases its power of abstracting heat, and when wind and moisture are combined, the chilling effect reaches its maximum. We may be able to face a cold dry wind without feeling any inconvenience; but if the wind be moist, or, still worse, if our clothes be wet, we shall feel chilled completely through, shiver, and probably catch a severe cold. Heat has been constantly and rapidly abstracted from our bodies, and the blood which brings warmth to the surface has itself been at length cooled. No one is astonished at catching cold under such circumstances, but we are often astonished that we should do so during warm weather, and with hardly any apparent cause. Experience has shown us, in fact, that it is not so much the absolute lowness of temperature which gives rise to colds as sudden changes from a higher to a lower. The reason of this remained unknown till the recent researches of Professor Rosenthal cleared up the mystery. It is well known that when cold is applied to the surface of a healthy animal, the cutaneous vessels contract. They thus prevent the blood from circulating in the skin, and by confining it to the interior of the body, prevent its cooling, and preserve the temperature of the vital organs, unless the application of cold be continued for a considerable time. This is not the case, however, when the animal has been previously exposed to warmth some time before. The cutaneous vessels become paralysed by the heat, and remain dilated even after the cold has been applied. The blood is thus exposed over a large surface, and becomes rapidly cooled, even although the temperature of the surrounding medium is not very low. In Rosenthal's experiments, animals were kept for a little while at a temperature from about 97 deg. to 104 deg. Fahr. The temperature of the animals themselves quickly rose during their confinement to 111 deg. or 113 deg. Fahr. After their removal, it not only sank to the normal, but even below it, so that an animal which was from 107.6 deg. to 111 deg. in the warming apparatus fell to 96.8 deg., and remained at that for several days, although the room in which it was kept was moderately warm. Confinement in a choky office, hot theatre, or crowded ball-room, will have a similar effect on man, and in the latter case it will be increased by the exercise of dancing. From such places people pass out into the cool open air, or will sometimes even purposely station themselves in a draught. The blood which is coursing not only over the flushed face, but through the dilated vessels of every part of the surface, is rapidly cooled below the normal, and, on its return to the internal organs, cools them much more quickly than it could have done had the person simply been exposed to cold without dilatation of the vessels by previous warmth. Rosenthal lays much stress, and we think

rightly, on the great effect of sudden *cooling* in bringing on a cold, the sudden change in the temperature of the blood producing an irritating effect, and inducing inflammation in any weak organ in a way that a gradual alteration would not do. It would seem, however, that the alteration must be from a temperature above to one below the normal temperature of the blood, and not a mere reduction from one considerably above the normal to one at or near it. When much heated, we may stand for a short time in a cool atmosphere with impunity; but if we stand long enough to carry the cooling process too far and produce a shiver, we run a great risk of catching cold. The fact that it is more dangerous to sit for a long than a short time in wet clothes, appears to indicate that a considerable and more gradual cooling, such as may then occur, will produce similar effects to a slight cooling suddenly effected by exposure to a cold draught after being in a warm room. The effect of a chill in causing inflammations may be partly due to the effect of cold on the tissues themselves, and partly to the hyperæmia which will occur in some parts when the blood is driven out of others by the contraction of their vessels. Rosenthal is inclined to ascribe the chief power to the former of these causes. Everybody knows the beneficial effect of cold baths, cold sponging, etc., in "hardening" persons, as it is termed, so that those who employ them are able to face almost any weather, and to endure sudden changes of temperature without injury; while those who coddle themselves and stop up every crevice lest a breath of air should blow upon them, are constantly suffering from colds. Rosenthal considers that this is due to the frequent application of cold water or cool air increasing the tone of the cutaneous vessels, so that they do not become so much relaxed by heat as to be unable to contract with sufficient force when necessary. The power of regulating the temperature is thus preserved, and the person prevented from catching cold.

COUNCILLORS AT THE COLLEGE OF SURGEONS.

ON Thursday next, the annual meeting of the Fellows of the College of Surgeons will be held for the election of representatives in the Council. For these four vacancies there were nine, and there are now eight, candidates. "Yielding to the pressure of the co-proprietor of the *Lancet* and the staff", who have ascertained that the small number of votes which would be recorded in his favour would not be conducive to the interests of that paper, Mr. Wakley announces to his friends that he proposes to retire. It may be thought that this gentleman was hardly wise, after courting the bubble honour, to run away from before the cannon's mouth. But no doubt the very peculiar sort of pressure which has been brought to bear upon Mr. Wakley by his partner is likely to be effective enough. His retirement, however, does not materially affect the position, although it adds a comic element to the situation, which is sincerely to be regretted. There remain as candidates having serious probabilities of election on this occasion, Sir James Paget (who is, of course, rightly secure of re-election), three metropolitan Fellows—Mr. Cooper Forster, Mr. Marshall, and Mr. Savory—ranging them in the order of seniority, and one country Fellow, Mr. Southam of Manchester. The three metropolitan Fellows stand all on ground so good that it will be hard to select which shall enter the Council this year, and for which one the honour of election shall be postponed till next year. We shall only urge that one vote is due from all to Mr. Southam, as the chosen representative of the provincial Fellows. Nominated in accordance with a requisition rapidly signed by nearly two hundred of the best known Fellows in the provinces, and coming forward to fill the place vacated by Mr. Turner, Mr. Southam will, it is hoped, receive the suffrages of metropolitan not less than of country Fellows. An important principle is involved. Every one will, we feel sure, concede that there are many questions which repeatedly come under discussion at the Council of the College of Surgeons, which largely concern the interests and welfare of provincial schools. No metropolitan Fellow would willingly do an injustice or an injury to the provincial Fellows;