perfection in the matter of our dwellings is very much of a myth; that to live in a Red Indian's wigwam is conceivably healthier. Let us take a passing glance at our soldiers, fresh from some training camp, where they have spent their days in the open air and their nights under canvas; a healthier-looking lot of men it would be hard to find—they have been gluttons of God's oxygen!

Having thus justified our plea that all is not as well as it should be, let us cease criticism concerning this portion of our subject and pass to the consideration of the improvements that are possible. A physician, who can only diagnose a case and is unable to suggest a cure, is scarcely worthy of his fee. We have thoroughly recognised that, short of keeping the windows open, we have to depend upon the accidental ill-fitting of our sashes and the chance opening of the door for any fresh air to reach us in our rooms, and also that this is an intolerable condition of things if we wish to live in any real state of health. This same fresh air, however, is to be had by the cubic mile for the mere trouble of giving it free access, and the small cost of sufficiently warming it to suit the requirements of our bodies. What quantity do we really need, and how can we best secure it?

When considering that little 10 to 11 ft. square sitting-room in our last article, it was stated that a human being would pass 22 cubic feet of air through his lungs per hour. This is based upon the fact that he breathes about once every four seconds, and takes in and respires about 40 cubic inches each time. During the hour about 0·7 cubic feet is converted into carbonic acid gas, which, present in the air in any quantity, is certain death. According to observations made by Pettenkofer, not more than one in a thousand volumes can be recognised as not harmful; indeed, he adds that not more than 0·7 vols. per 1,000 should be permitted. By actual experiment he found 30, 40, and even 70 volumes per 1,000 present in the air of taverns, schools, concert and workrooms, prisons, theatres, and barracks. If, therefore, we wish to keep the air at only 1 vol. per 1,000, it is evident that a man's hourly product of 0·7 cubic feet of this gas is sufficient to contaminate 0·7 by 1,000 = 700 cubic feet of air. Those three occupants of that room would therefore need 2,100 cubic feet of fresh air per hour to keep their surroundings really salubrious. The chief source of impurity, however, would be the single gas flame they had burning, for this would produce about 5 cubic feet of the deleterious gas and require no less than 5,000 cubic feet of fresh air to render it harmless. Hence, to keep everything as it should be, that room would need to have no less than 7,000 cubic feet of fresh air passed through it each hour. It sounds really alarming, but is in fact not at all so; the figures only run into thousands and frighten us, because our unit of measurement is small. The means for readily taking away the quantity named, and much more are ready to hand in nearly every room. Presumably because of the universal belief that the firegrate acts as a ventilator, it is almost invariably provided with a flue measuring 14 in. by 9 in. To pass 7,000 cubic feet of air up a chimney of that area would require a velocity of current of only 2·22 ft. per second. This is very moderate indeed, and always present excepting perhaps only on a very hot day in summer. The writer has personally found, by measurement with an anemometer, in such flues velocities ranging from four to even eight times higher than this, when the outside air has only been in the neighbourhood of the freezing point, and this in shafts not exceeding 30 ft. in height. All, then, that is needed to convert our sitting-room from a "Black Hole in Calcutta," *in petto* into a positively healthy apartment, is to cut a hole into the chimney close to the ceiling and leave our contaminated air to find its way through it. We can safely count upon a current of 6 ft. per second in all winter weathers, so that, if the opening has an area of one-third square foot, and measures, say, 9 in. by 6 in., we may rest assured that the air will at once become breathable. The expense of this is not great; an Arnott ventilator might cost 10s., and a bricklayer could fix it with a few pounds weight of plaster of Paris in a couple of hours. Of course, we can still depend upon the crack under the door for our fresh air, as the open grate does at present, but it is far better to provide a recognised inlet, thereby avoiding all unnecessary draughts, and also ensuring a pure source of supply. A couple of tubes, one in each corner of the room and against the outer wall, rising, say, 3 ft. 6 in. or 4 ft. above the floor, open at the top into the room and at the bottom by means of a hole in the wall to the external air, will do all that is necessary. Each tube should be equal in area to the outlet opening, so that the air may enter at a low velocity.

(To be continued.)

Irish Nurses' Association.

A very enjoyable evening was spent by the members of the Irish Nurses' Association on Wednesday evening, February 22nd, at the Association Rooms, 86, Lower Leeson Street, Dublin, when Dr. Parsons, one of the visiting physicians to the Royal City of Dublin Hospital, and Newcastle (co. Wicklow) Hospital, gave a lecture on "Home and Foreign Sanatoria," illustrated by many beautiful lantern slides. There was a large attendance of members, who thoroughly appreciated the lecture. At the close of the evening a hearty vote of thanks was proposed by Miss Joy, seconded by Miss Butler, carried by acclamation, and conveyed to Dr. Parsons by Mrs. Kildare Treacy, Lady Superintendent of City of Dublin Nursing Institute, who presided.

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