

benefits on men that in many cases are not really required, is not an act of justice or beneficence but a tyrannous imposition. If carried, the Bill will go far to convert those who doubt the wisdom of woman suffrage to a belief in the necessity for such a change to prevent such unfair treatment of women at the hands of politicians."

There are other questions of equal importance to nurses arising out of the Bill, and they owe a debt of gratitude to Mr. Pennant for interesting himself in their welfare, and consenting to give them expert information on the subject.

Keeping Cool.

The following interesting article appears in *The Dietetic and Hygienic Gazette* :—

Through the help of clothing and of fire man has escaped from his original habitat and has set up his abode in all climates. This spirit of wandering has brought with it for those who have made their dwelling in the temperate zones, the semi-annual problem—in winter of keeping warm, and in summer of keeping cool. The latter problem confronts us again at present, and it may be well to review the subject from the physiological standpoint.

The matter presents the two aspects, first, of heat production, and second, of heat loss; and keeping cool therefore resolves itself into the reduction of heat production, the increase of heat loss, or both. Nature herself indicates and forces upon us to a certain extent these methods, though we may voluntarily help or interfere with her efforts.

The sources of bodily heat may be divided into internal and external. The internal heat production results, of course, from metabolism. A certain amount (some 350 calories) is produced by the activity of the heart, about 250 C. by the digestive apparatus, about 150 by the respiratory machinery, but by far the largest amount—from 800 C. upward—is produced in the voluntary muscular system. The greater the amount of muscular activity the larger the heat production, but, even when we are at rest, to outward seeming, half the total heat production of the body goes on in the voluntary muscles. This is liberated in the chemical activity accompanying the tonic contraction which goes on constantly. In hot weather nature reduces this involuntary heat production in the voluntary muscles to a minimum, and, in consequence, we feel re-

laxed and "like a dish rag." She also, for the same end, hints to us to reduce the amount of our voluntary muscular activities. Along with the banking of the chemical fires in the muscles, the amount of heat produced by the digestive, respiratory, circulatory, and excretory organs is also lessened, provided we follow the guidance of instinct by eating only what she demands.

For the dissipation of body heat nature furnishes internally, first, the dilation of the vessels of the skin and the spreading out of more blood to cool, and second, the sweating apparatus by which, through evaporation, she lowers the temperature of the skin and of the blood within it. Additional aids for cooling the body, governed by volition, are: Avoidance of the sun and other external sources of heat, the use of currents of air, the taking of cold baths, the use of cold food or cold drinks, and the reduction in quantity and change of quality of clothing.

We cannot, fortunately, control the involuntary machinery for either production or elimination of heat, but we can do much toward keeping cool through a sensible regulation of the voluntary factors. We are inclined often to sneer at our southern cousins for their sluggish ways and their summer siestas, and yet they do but follow nature's leading in methods of reduction of heat production through checking of metabolism in the voluntary muscles. That reduction reaches a minimum in the horizontal position and in sleep, and if we could afford to make a business of keeping cool we would best imitate their example. Indeed, those who live in a hot climate long are forced to do this.

It would seem to be unnecessary to so much as mention the avoidance of external heat as a voluntary means of keeping cool, but there are those who conceive the mistaken opinion that unnecessary exposure to the July sun, with consequent tanning and burning of the skin, is somehow a beneficial thing, even if we do suffer more or less in the process.

The development of heat within the body can be further reduced by following instinctive guidance in the use of meats and drinks, and the keeping of both of these at the minimum demanded by a true hunger appetite. The bulk of food needed for the best working of the alimentary organs is well supplied by the indigestible portions of vegetables and fruits, and it is needless to say that fats should not be much in evidence in a summer diet. Liquids, too, should be kept at a minimum, for the inhibition of water over and above the needs of the body does not aid the sweating apparatus, and the reduction of temperature

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