life's unfolding, we are safeguarding and securing the means whereby each life may reach its highest destiny, reaping individual happiness, and yielding its due tribute to the national weal.

The Dangers and Evil Effects of Infant Binders.

Most of those who have been trained as midwives and maternity nurses take a pride in their skilfulness in applying an infant's binder, and, indeed, it is a matter of some difficulty to acquire the art. Mr. A. Waring, M.B., Hon. Physician to the Children's Hospital, Nottingham, in a paper read before the Nottingham Medico-Chirurgical Society, protests against the use of the binder, which, he says, is generally regarded as a necessary covering for warmth and support. Warmth can be as well supplied by loose clothing, while support is not needed. The only possible justification for its use is, he thinks, for its protection to the ligatured cord, but it is not necessary even for this purpose. Mr. Waring, as reported by the *British Medical Journal*, says:—

As the result of frequent and repeated examinations of the infant, both in private, but more especially in hospital practice, I have been deeply impressed with the vast amount of harm and suffering caused by the discomfort, and the constriction or compression of either abdomen, thorax, or both, by any form of binding. Among the well-to-do, where intelligent supervision can be obtained, one may be fortunate enough to meet with a competent nurse or mother, who will appreciate the danger of compression and avoid it. It more often happens that even the trained nurse—or midwife—while desirous of avoiding undue pressure, yet fails to realise the small degree of force necessary seriously to constrict the abdomen and resilient chest walls.

But apart from such probabilities, we have to consider the vast majority of the less experienced and ignorant, with whom there is a widespread and deeply rooted belief that binders are chiefly intended to serve as a support. As the result of this misconception, they are fixed either tightly or with a degree of firmness sufficient to cause various injurious effects and conditions, which are, I believe, frequently overlooked or unrecognised.

The nature and extent of the injury and condition which may thus result from constriction and increased intra-abdominal and intrathoracic pressure will depend on:—

1. The degree of constricting or binding force.
2. The extent of surface covered.
3. The time worn.
4. The health and power of resistance of the infant.

Having thus briefly touched upon the important technical and other points of interest, I will proceed to describe the various effects and conditions which may result from binder compression.

1. *Discomfort.*—In the first place the discomfort alone, even in cases where the binders are not very tightly fixed, may be such as to cause much restlessness, frequent crying, loss of sleep, which if long continued will obviously affect the health of the child. It is astonishing how often even the intelligent nurse or mother will overlook this small matter, and be puzzled to account for such irregularities in a healthy and strong child. When the constricting effect of binders is at all severe, the infant presents outward typical signs which may be at once recognised. The facial expression, a somewhat livid hue, dilated temporal veins especially noticeable when the child cries, restlessness, clenched fists—these and other points readily give the clue.

2. *Vomiting.*—This frequently results from undue constriction, especially when both thorax and abdomen have been covered either by one wide abdominal binder or two or more separate ones. This compression prevents probably that natural distension of the abdomen which regularly occurs after a good feed. The effect being often enhanced by some flatulent distension, the vomiting is obviously more of the nature of a regurgitation. I see many cases of this kind in which the nurse or mother, not recognising the cause of the vomiting, assumes that it is the result of some stomach trouble, and proceeds to administer drugs, reduce the quantity or weaken the milk, or probably changes the food to something unsuitable. The last state will then become worse than the first, and eventually the child may sink to a condition of serious debility and marasmus.

3. *Inguinal and Umbilical Hernia.*—Inguinal hernia is obviously most likely to result from an increase in both the intra-abdominal and intra-thoracic pressures from the tight application of either one wide binder, such as the abdominal or thoracic; or two or more separate binders enclosing both abdomen and thorax, being thus thrown on the inguinal region. It is reasonable to assume, however, that even where only one narrow abdominal or thoracic binder has been applied fairly tightly, the tendencies will be in the same direction. The extra strain caused by such influences as the