that the child was alive during birth, and that it died from violence or neglect.

7. That a single woman, certified to be pregnant by a medical man, should be enabled to make a declaration of the father before a magistrate, when there is reason to believe that he is likely to abscond.

8. That any pregnant woman, being destitute, should be at once admissible into the workhouse by application on or about the completion of the eighth month of pregnancy, on condition that she should engage to remain in the house for at least four months after the birth of the child, unless she can show clearly that, on leaving before the expiration of that time, she has a reasonable prospect of being able to support herself and child.

9. That, after the period of four months has elapsed, the mother, if a single woman, should be allowed to leave the infant in the workhouse; and that the guardians be empowered to recover from the mother in such cases a portion only of the sum required for the maintenance of the child.

10. That the guardians should have power to recover from the father of an illegitimate child a weekly sum towards its maintenance; and that the legal process of recovery should be assimilated to that for recovering the cost of maintenance of legitimate children deserted and left chargeable to the parish. The Committee consider that the maximum sum which may be assessed on the father of an illegitimate child should be raised from half-a-crown to five shillings per week.

11. That laundries, or some other means of remunerative occupation, be established in workhouses, for the self-maintenance of the mother during her stay therein.

12. That a classification of pregnant women and mothers should be adopted in workhouses, whereby the respectable married and single women should be separated from the vicious and more depraved class in the maternity and nursery departments.

13. That, for the rearing of children left in charge of the guardians, a colonising system should be adopted similar to that pursued by the Foundling Hospital, and to that followed under the old Poor-law system.

14. That no person be allowed to take charge of an illegitimate child to nurse who is not registered as a fit and proper person; and that she and the child, or children, in her care, should be under the supervision of the district Poor-law medical officer. Any person acting as a nurse to an illegitimate child and not being registered should be liable to a penalty, and penalties should be enforced in all cases for neglect or ill-treatment. That no nurse should be allowed to take charge of more than two children without the consent of the district medical officer.

15. That no single or married woman should take the situation of wet-nurse whose child is not placed in charge of a person registered as a dry-nurse.

16. That a central authority or superintendent should be appointed by the Poor-law Board to carry out the provisions in regard to dry-nurses, and to receive annual reports from the district Poor-law medical officers on the state of the illegitimate children and of the efficiency of the nurses under their superintendence.

17. That a register of dry-nurses should be kept by the district Poor-law medical officer; and that certificates of fitness as regards herself and her residence, signed by the district medical officers and also by the minister of the denomination to which she belongs, should be required of every nurse placed on the register.

18. That no infant or very young person be allowed

to be entered as members of burial clubs, or to become the subjects of life assurance.

19. That the establishment of Foundling Hospitals for the free and indiscriminate admission of infants would be attended by bad results.

20. In conclusion, the Committee are desirous of expressing the opinion that the following causes of illegitimacy and indirectly of infanticide require the attention of Government. 1. The overcrowding of the dwellings of the labouring classes in urban and rural districts. 2. The custom prevailing in the North and West of England and in Scotland of public hiring of servants. 3. The gang system in agriculture. 4. The promiscuous lodging of the sexes during hop-picking, harvests, cider-making, etc.

ON DEFORMITIES OF THE CRANIUM.*

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As in the skeleton of the larger reptilia, whose growth has not apparently that limit which is characteristic of the growth of mammalia, so in the human skull, certain pieces, which are commonly called the cranial bones, remain distinct for many years after the consolidation of the other portions of the osseous framework.

The cranium consists of four expanded vertebrae—the occipital, the parietal, the frontal, and the nasal; and the parts which remain distinct are, for the most part, the expanded spines, represented by the upper part of the occipital bone, the two parietal bones, the frontal bone, and the nasal bones.

The reason why these "bones" remain distinct is now understood. The sutural substance affords itself the material for ossification; it is the stroma for the deposit of phosphate of lime. Therefore, the development of the skull can only go on normally and in all directions so long as the different sutures remain distinct. If during the period of growth one suture, or only a part of one suture, become obliterated, the skull must become deformed, inasmuch as increase goes on at one part but not at another. Hence there will ensue "partial microcephalia", or else there must be a compensating enlargement in some other direction.

Professor Virchow has adopted the following classification of deformed skulls.

1. The obliquely contracted skull; of which there are two varieties.

a. That which proceeds from synostosis of half the coronal suture, i.e., anterior.

b. That which proceeds from synostosis of half the lambdoidal suture.

2. The transversely narrowed skull, or that which becomes elongated in the antero-posterior direction, of which there are four varieties.

a. That which proceeds from synostosis of the sagittal suture.

b. That which proceeds from lateral synostosis of the parietal and frontal bones, by ossification of the lateral and lower part of the coronal suture.

c. That which proceeds from synostosis of the parietal and sphenoid bones, by ossification of the sphenoparietal suture.

d. That which proceeds from synostosis of the parietal and the squamous portion of the temporal bones, by ossification of the squamosal suture.

* Read at the annual meeting of the Shropshire Scientific Branch, October 24th, 1866.

3. The longitudinally contracted, or short skull, proceeding from the early ossification of the entire lambdoidal suture.

It is obvious that deformity of the skull can ensue only when this obliteration of the sutures occurs in early life, and during growth. Synostosis of the sutures of the well-formed and thoroughly developed skull can have no pathological value. It is interesting to remark that Retzius speaks of "races of men" characterised by long or by short heads, and he terms them respectively dolichocephalous and brachycephalous. A question of great interest has been raised as to whether these deformities of the skull can, by interfering with the proper development of the brain, tend to idiocy or any other derangement of the mental faculties.

It is, I confess, with some degree of diffidence that I express my disbelief in such a possibility as standing in the relation of cause and effect. Irregularities of development are rarely limited in extent; they affect a system of organs; as in the case of the skull, it would involve likewise a corresponding part of the encephalon.

I take the liberty of presenting for inspection two skulls which came from the natives of Vancouver's Island, of a race called "flat-heads." The one denuded of its covering is an instance of the effects of synostosis of the sagittal and lambdoidal sutures, and illustrates the compensating development in the occiput. I send, also, that which has been made with some trouble, a cast of the brain, showing its alteration in form. It is said that these changes are effected by pressure on the head of the infant during the early months of life; but I cannot help thinking that physical deterioration is a far more potent agency.

The race of red men are fast disappearing before their Saxon masters. Even the Huron is reduced to a small and peaceful tribe, subsisting, yet gradually dying out.

Yet we must confess to this point of pathological interest, that the same irregularity in cranial development, and in the synostosis of the cranial bones, has been remarked in the cretin and in the idiot, as well as in these half extinct races of low minded savages.

ON THE INFLUENCE OF THE SEWING-MACHINE ON FEMALE HEALTH.*

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It is apparently one of the conditions of every human improvement, that there shall be some accompanying disadvantage.

The rapidity of transit which steam has introduced, while it has multiplied our means of enjoyment, and enabled men to expand their minds by visiting distant and varied scenes, has produced, in many, evils to the nervous system, which have rendered it a not unmixed good.

The lucifer match, which banished the rude means which our fathers took to initiate flame, has led, in its manufacture, to disease of bone, most direful in its result; and the various processes which have enabled us to produce implements of usefulness or articles of beauty, transcending all precedent, have not unfrequently led to the creation of diseases, which sacrifice the health, and even life, of the cunning artificer.

Probably no improvement which has taken place in recent days, has been hailed with more pleasure, or has promised to be more unalloyed with evil, than the introduction of the machine for sewing. Who that has been conversant with the miseries of the sempstress, who has watched her pallid face, in the flickering light of her slender candle, and has heard that everlasting stitch, which inspired Hood to write his plaintive song, but must have hailed with delight the introduction of a machine which would have a tendency to give to female labour a value and importance it did not before possess, and to diminish "poverty, hunger, and dirt"?

Who that has examined the ingenuity of the machines, their, in many cases, exquisite finish, and singular adaptiveness; or, passing to the results obtained, has studied the elaborate work with which all articles of apparel are adorned, but must have regarded the introduction of these household and manufacturing agents as a vast addition to the world's good?

It is a somewhat sorry part to disturb an universal jubilation. It may betoken a malicious spirit to seek for evil in what has been regarded as so great a benefit. It has, however, fallen to my lot to meet with, at the out-patient department of the London Hospital, a large and rapidly increasing number of patients who have discarded the labour of the sempstress, and assumed the business of the machinist; and I have been for some time struck with the similarity of symptoms which many of them present. So marked have been some of the features, and so frequent has been the coincidence of the symptoms with the use of the sewing machine, that I have been in the habit of pointing out this relation to the students who have attended my practice, and have regarded the use of the machine and the symptoms to some extent as cause and effect.

These patients for the most part complain of palpitation of the heart; of palpitation, not depending on exertion, but frequently troubling them at night, when they assume the horizontal position. They speak of severe pain in the back, the pain extending down the thighs. Their pupils are usually dilated, and not very responsive to the stimulus of light. They complain of supraorbital headache, of a feeling of giddiness, and a sensation of cobwebs floating before their eyes. The eyes have diminished lustre; and beneath the orbits the skin presents a darkened hue. They nearly all complain of great debility, and it is manifest that there is existing a mental as well as a physical hebetude, as betokened by the slowness with which questions are answered, and the statuesque manner of the patient; they frequently, after the examination of the pulse at the wrist, allow the arm to remain flexed for a short time in a semi-cataleptic condition. Leucorrhœa exists in nearly all the cases.

Further inquiry being prosecuted, I found that those cases which presented the most marked features of disturbed health, were in the habit of working the machine sent out by one manufacturing house, and that the machines were so constructed that the motion was imparted by a treadle worked by the alternate up and down movement of the legs, and were heavy in their construction, being adapted for coarse work. The symptoms, which were thought to be associated with machine-working in general, were not observed among those who used machines of a lighter structure, which were worked by the flexion and extension of both feet simultaneously. I found, however, that the first kind of machine was the one in more frequent use among those who employed machinist labour, and that, consequently, a far larger

* Read at the East Surrey District Meeting, October 11th, 1866.