conjectured that if, in addition to that, his breathing had been oppressed by compression of the lungs from air accumulating in the cavity of the pleura, he could not have survived. We may, therefore, look on the escape of air into the cellular membrane, external to the chest, as having been a source of safety—like the steam let off by the engineer, from an overcharged boiler.

In the course of watching the case, we had to keep our minds directed to three distinct sources of difficult breathing: first, that which might depend on the patient's former disease of the chest, of the nature of which we had no exact information; secondly, that which might be the ordinary effect of several ribs having been broken at the same time; thirdly, that which might arise at any moment from the air that escaped at the wound becoming confined, and increasing in quantity within the cavity of the pleura, so as to compress and stop the breathing in one or both lungs.

You will have observed that we applied the rib-roller at first, and immediately afterwards removed it; but again, when the patient improved, returned to its use. It is not unfrequently found, in cases where more ribs than one have been broken without any lesion of the lung, that the chest-bandage, however applied, with or without pasteboard or the like to protect the side, cannot be borne, and we are obliged to abandon it. This is more likely to occur when there has been previous disease of the chest, old bronchitis, or emphysema, in elderly persons, who are the people most liable to have their ribs broken. But, in this case, I was afraid that, if the thorax had been bound firmly, or with tightness sufficient to do any good, two bad results would have ensued: first, it was to be apprehended that the pressure directed on the seat of the fracture by the roller would have stopped the exit of air from the cavity of the pleura, or prevented its free entrance into the cellular membrane; and secondly, supposing air had accumulated in the cavity, and caused compression of the wounded lung, the bandage would have had the effect of interrupting the play of the sound side of the thorax, and, by impeding the respiration in the only lung left to perform the office, would have added greatly to the dangers of the patient, suffering already as he did from chronic bronchitis.

Original Communications.

ON THE SUCTION-METHOD OF REARING INFANTS.

By F. J. BROWN, M.D., Chatham.

My object in this paper is to point out the value of milk as the food of infants, and the importance of administering it by the suck-bottle; also, to condemn the practice of pap-feeding.

I wish to show not only that milk is the natural food of infants, but also that suction is the natural mode of taking this kind of food during the infantile period of life. In speaking of suction, I do not mean exclusively the sucking of the mother's breasts; I also include the sucking of a bottle with prepared mouthpiece. I use the word suction to show that the natural mode of feeding in infants is by sucking, in contradistinction to the eating or swallowing of spoon-food.

Pap of every kind I hold in abhorrence. I declare war against it. I tell the mothers and nurses that feeding by pap is an excellent way to kill their children; that, although the majority of infants live and thrive on spoon-food, yet that many perish; and that spoon-food is the cause of the flatulence, eructations, vomitings, and gripes, that are considered to be natural to infants. I believe that these unpleasant conditions are mostly due to the spoon-food; that they are far less frequent in children that are suckled either at the breast or by means of the bottle, *provided that the acts of suckling be not repeated at intervals shorter than three hours.*

Children thrive admirably on breast-milk, or on cow's milk diluted with one-sixth part of water, and slightly sweetened with white sugar. The amount of sugar should be very small; and the milk should be given lukewarm, with the child lying in the semi-recumbent posture, in its nurse's arms. The child may take its fill (from four to eight ounces) each suckling period: thus it will take from one to two quarts, or even more, of milk and water daily. The child may be taught to do without sucking for four or five hours in the night.

The child should not have anything given it in the way of food until the teeth begin to appear. Nature sends the teeth to indicate that mastication is about to replace suction.

About this period, it is right to give a small quantity of pap; namely, white home-made bread (free from alum), scalded or boiled slightly, and sweetened by a small quantity of white sugar. If such bread cannot be obtained, give tops and bottoms, or rusks, prepared for use in the usual manner. Gradually increase the feeding, and give beef-tea and gravy, and, finally, portions of any wholesome food that may be upon the table.

When the teeth appear late, the feeding must also be adopted late.

Milk must be the food of toothless infants. Still, after nine months have passed from the birth of the child, although there may be no teeth, a small amount of food may be given; but I should advise that it be beef-tea, rather than bread, in these cases. The cordials and baby-mixtures, so commonly used for infants, would almost disappear from our homes, if children were not sought to be reared as young birds. Birds throw food down the throats of their gaping progeny, and nurses imitate them by shovelling pap into the mouths of their little ones until the food lies in the mouth unswallowed, the child scarcely caring to swallow it. Mark the difference in the results: the young bird thrives in direct proportion to the amount of solid food swallowed, whilst the infant thrives in an indirect ratio.

A few words now respecting the sleeping of infants. Infants ought not to sleep in the same bed with their parents: they should sleep in a cot by the side of the bed—one of equal height with the bed. This would save the child from the danger of suffocation, and would render the mother's bed more comfortable for herself. It is believed that many infants perish, not by being overlaid, but by being asphyxiated by carbonic acid; the child sinking down in the bed under the clothes, and so being exposed to the carbonic acid.

The few remarks that I have made contain nothing that is not already known and taught by all medical gentlemen acquainted with sanitary science; but the public are utterly shocked at the heretical nature of the doctrine, and cry out upon its promoters as if they had a design upon infantile life. I have seen so many fine children reared by the suction of milk, and so many children damaged by spoon-food, that I cannot forbear raising my voice a second time* in favour of the one method, and adversely to the other. I believe that thousands of illegitimate children, that are put out to nurse, and that now perish, might be reared by the milk-suction method. Certainly many of these poor innocents are diseased, and die of syphilis; but for this affection in infants there is a remedy that acts most satisfactorily; it is the unguentum hydrargyri fortius of the *Pharmacopœia*, applied over the abdomen. No medicine is required internally. I have seen many children cured in this way of syphilis, and also of strumous glandular disease of the abdomen.

If it were not unsound policy to interfere with the operations of trade—to disorder the balance between supply and demand—I should recommend that adults in the enjoyment of good health should forego the use of milk, so that babes might obtain an abundant supply of their natural food. There are so many weakly mothers, and so many unmarried women that bear children, that a large supply of cow's milk is needed. I expect that all the cows' milk consumed in this country in tea and coffee would be required for infants, if the milk-suction method of rearing children were exclusively adopted. For my part, I should be glad to see the use of milk confined to infants, to the aged, and to the sick of all ages.

To sum up:—

1. The natural food of infants is milk.
2. The natural mode of feeding, in infants, is by suction.
3. Milk must be the food of toothless infants.
4. The teeth are Nature's indices of the masticatory process.

AN ANALYSIS OF TWO THOUSAND CONSECUTIVE CASES IN MIDWIFERY OCCURRING IN PRIVATE PRACTICE.

By G. RIGDEN, Esq., Surgeon to the Canterbury Dispensary.

[Read before the East Kent and Canterbury Medical Society.]

I HAVE been induced to communicate the following analysis of cases in midwifery to the Society, not only as giving the result of an individual practitioner's experience during a period of many years, but as affording in some degree a contrast between the statistics of private practice and those derived from obstetric institutions, where the average of bad cases, from the

* See my paper on the First Food of Infancy, in the "Journal of Public Health and Sanitary Review" for April 1856.