

realities, it is well for us to keep our eyes open to the moral verities also, which no less form part of the tissue of our daily professional work. Let us remember that diligence is the price of success, and that the only desirable success is that which is reached by the rejection of error, and the loyal recognition of truth.

Since our last meeting, there has occurred the death of one of our corresponding members, whose hostility to error might in all friendly criticism, be called intemperate, one whose diligence and devotion to the interests of his patients make him an exemplar worthy of our affectionate remembrance. But I will not trespass on the subject of the first paper of our session, which is by Dr. A. J. Steele, of St. Louis, on the orthopædic work of the late Mr. Thomas, of Liverpool.

### A DISCUSSION OF THE MERITS OF THE DIFFERENT ARTICLES OF INFANT DIETARY.\*

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(Continued from September number.)

Next we come to Cow's milk, which is most used, and, when suitably prepared, is the best substitute for mother's milk. The differences between cow's and mother's milk are as follows :

| Cow's.         |              | Mother's.       |  |
|----------------|--------------|-----------------|--|
| Acid.          | Reaction.    | Alkaline.       |  |
| 13.2 per cent. | Solids.      | 12-13 per cent. |  |
| 4 "            | Fat.         | 3-4 "           |  |
| 4 "            | Albuminoids. | 1-2 "           |  |
| 4.5 "          | Sugar.       | 7 "             |  |
| .7 "           | Ash.         | .1-2 "          |  |

And the casein of cow's milk coagulates into a tough cheesy mass in the stomach. This mass is very indigestible. Mother's milk coagulates into fine flaky curds. Cow's milk contains less sugar, slightly more fat, more albuminoids, more salts and other extractives. Experience teaches us that, up to nine months, an infant cannot digest pure cow's milk, owing to the excess of casein. Indigestion, with flatulence and pain, vomiting and diarrhoea, is set up, and unless a change is soon made, the child will not thrive and may die. Hence the necessity of altering in some way the relative composition

of cow's milk. The most natural thing to do, is to produce such an alteration that it will resemble the mother's milk, and while this is theoretically correct, it is found to be clinically correct also. All the efforts of scientific medicine have been to reach this desirable goal. If cow's milk is diluted equal parts with water, the proportion of casein is right, but the fats and sugars are defective. If one part cow's milk and two parts water are used, the percentage of sugars and fats are more defective, and the casein—while below the average—is still in sufficient quantity for nutriment. The greater the amount of dilution with water, the finer the curd which is formed in the stomach. Dr. Rotch, after a series of experiments, concluded that cow's milk one part, water five parts, produced in the stomach a curd the most closely resembling the curd of mother's milk.

If an effort to induce the parents to adopt some of the more exact methods of preparing cow's milk fails, preparations as follows may answer :

For an infant one or two months old, cow's milk one part, boiled water two parts, lime water sufficient to make alkaline, and sugar.

At three months, the same ingredients, but equal parts water and cow's milk.

At nine months, milk two parts and water one part.

These various preparations, though defective in many ways, when sterilized and partly peptonized, may give you very good results. But the best method of all, scientifically accurate, and in which you know exactly what you are doing, is Meigs' modified method. The original preparation which he has made for years and with considerable success, is as follows :

|              |        |
|--------------|--------|
| Cow's milk,  | 3 j.   |
| Cream,       | 3 ij.  |
| Lime water,  | 3 ij.  |
| Sugar water, | 3 iij. |

This sugar water is of the strength of 3 iijss. milk to 3 iij. of water.

There are two objections to this formula, although in actual use it has been very successful : 1st. It is almost impossible to obtain a standard preparation of cream. 2nd. It is strongly alkaline. If you dilute the lime water three times before adding it to the milk, the second objection is overcome.

In Dr. Meigs' modified method, the first objec-

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