Supporting him while vomiting: this lessens the strain on the abdominal organs.

Relieving thirst by carefully washing out the mouth with warm water, and by cleaning the tongue and teeth with glycerine and lemon juice, or glycerine and borax, frequently.

Inducing sleep by sponging the face and hands, darkening the room, and ensuring his absolute rest by a comfortable bed and position.

Giving special attention to any septic focus, where cossible.

#### HONOURABLE MENTION.

The following competitors receive honourable mention: Miss Amy Phipps and Miss Doris Smith.

## QUESTION FOR NEXT MONTH.

Describe the nursing of a case of measles, with severe broncho-pneumonia, in a private house.

# BABY FEEDING.

### WHEN NATURE'S METHOD CANNOT BE FOLLOWED. By Henrietta Ballard, D.N., S.R.N., M.B.C.N.

Cows' MILK .--- Best substitute.

Disadvantages .- 1. Bacterial content. 2. Indigestibility of casein. 3. Alteration necessary to humanise it.

BABY'S REQUIREMENTS.

Fifty calories for every lb. he weighs until he is nearly

six months old, then 45 calories per lb. Number of feeds, excluding night feeding, six to seven feeds in 24 hours if under 10 lb. in weight, feeds to be given at three-hourly intervals. When the infant is over 10 lb. in weight, feeds to be given at four-hourly intervals, the number to be five in 24 hours.

The amount of feeds depends on the baby; each must be fed on his own merits, and yet meet his bodily requirements. The puny child will need more heat-giving food, and the vigorous child will wear more tissue and so need more protein.

Method of modifying cows' milk practicable for any district mother .-- Turn milk into jug on reception and cover in cool place for four hours. Remove top part of milk by means of conical dipper placed in hot water before use; this prevents cream falling.

If we compare percentages of milk and effect of dilution of cows' milk we shall immediately realise our deficiencies.

	•			Human milk. per cent.	Cows' milk. per cent.	diluted 50 per cent. per cent.
Protein			• •	- 2	- 4	2
Fat	••		••	4	4	2
Carbohydrate			••	Ġ	4	2
Salts			· .	.04	.04	.08
Water	••	••	••	88	88	

### Approximate Tables.

An ounce of cows' or human milk equals 20 calories, therefore diluted milk is very deficient and must have caloric value made up with sugar and fat.

How can this be done?

PROTEIN, correct in quantity but not quality, its excess in casein and defect in lactalbumin, often calls for some treatment by addition of sodium citrate to milk to retard curd formation.

Sodium citrate, one grain to each ounce of milk, and decrease, if possible, one grain daily and so give the baby's stomach the opportunity of working for itself. Sodium citrate deteriorates milk if used too long.

FAT.—Foreign fat to baby is upsetting; extra fat in feed — hangs around bottle. Fat after feed — upsets stomach digestion, as it does not reach bile at the proper time. We would not finish a meal on butter, for example.

Experience has taught me that half to one teaspoonful of cod liver oil or Grimsby emulsion given immediately before feed and followed at once by bottle will give this. the necessary dilution and be digested easily with protein and baby "gets " it.

*Cream addition.*—Too liable to contamination. CARBOHYDRATE.—Average deficiency of diluted cows' milk about 5 per cent. Foreign sugar can be taken fairly easily, but start gently; a teaspoonful of sugar to five ounces of the mixture makes a 3 per cent. solution, and, if necessary, can be increased later to 5 per cent.

VITAMINS.—Poor in any milk, therefore increase by fruit juice daily; orange preferably. Cod liver oil gives and D often, if reliable preparation.

SALTS.—Salts—made poorer by dilution often overlooked-increase by orange juice and water, baby needs water.

WATER.-(1) For cleansing tract.

(2) To give salts.

(3) Aid juice secretion.

To prevent concentration of feed causing constipation. (4)

(5) Because he gets thirtsy. QUANTITIES .- A 10-lb. baby needs twenty-five ounces of modified milk or 500 calories.

Milk—121 oz. Water—121 ozs.

Sugar-Plus cod liver oil before feeds.

How can we know baby is thriving ?—(1) By regular gain in weight of four to six ounces per week. (2) By the mustard-like colour and constituency of his stools. (3) By absence of vomiting or signs of abdominal discomfort.

FREEING MILK OF BACTERIA.

The Two METHODS are : (1) Pasteurisation ; (2) Scalding. METHOD I.

1. Pasteurisation.—Bring milk to temperature 145° F. for twenty minutes and rapidly cool by standing in dish of cold water, in draught, covered with muslin to allow rapid evaporation to extract heat from the milk, or by standing on ice. The former method is easy and practicable, even in slums.

Pasteurisation (I) impedes growth of all germs. (2)Kills some germs. (2) Preserves the vitamins. (4)Leaves milk constituents unchanged.

All milk should be pasteurised in preference to sterlisation. METHOD 2.

2. Scalding (1) Bringing milk to boiling point, tempera-ture 212° F., and cooling quickly. (2) Impedes growth of all germs. (3) Kills some germs. (4) Destroys vitamins.

ins. (5) Alters milk generally, All bottles and utensils used for baby feeding should be sterilised.

The feeds for the day should be made up together when the fresh milk has stood for about four hours.

Teats can be best cleaned, inside and out, by rubbing with sodium chloride and rinsing under cold running water; it is unnecessary to boil teats more than once a day for a baby having his own bottle. A flannel bag on bottle during feeding will keep the contents near to temperature 100° F. during whole time of sucking.

VALUE OF STOOL INSPECTION.

Curds .- White flaky substances in stool show that proteins are not digested ; sodium citrate added to feed usually overcomes this trouble.

Soapy stools denote more fat passing through than digested.

Fermenting stools denote too much sugar in feeds. Green stools show presence of germs in alimentary tract.



