

ready to betray their professional and economic status, as the members of the London Centre evidently are.

So far we have to thank the General Nursing Council for Scotland that we have the minimum of one year's training for registration intact. Quite rightly Scotland will not agree to have it scrapped.

OUR PRIZE COMPETITION.

WHY IS THE PURITY OF MILK, AND THE CLEAN HANDLING AND DISTRIBUTION OF MILK, OF VITAL IMPORTANCE TO THE NATION? WHAT POINTS ARE OF SPECIAL IMPORTANCE IN THIS CONNECTION?

We have pleasure in awarding the prize for last week's Competition to Miss Sarah Ann Cross, Woolwich Home for Ailing Babies, 123, Eglington Road, Plumstead, S.E.

PRIZE PAPER.

Pure, clean milk is a perfect diet, as it contains all the elements which are the materials necessary for the growth of the infant during the first months of life. Chemical analysis shows that milk is composed of five classes of foodstuffs: (1) Proteid, (2) fats, (3) carbohydrates, (4) mineral matters, (5) water, which must therefore be regarded as the essentials of a perfect dietary.

From the moment of milking to the time of consumption milk is continuously exposed to sources of contamination, namely, from the cow itself, from the milker, from the pail, from the cowshed, from the churn, from dairy utensils, from utensils in the home, and more particularly from ignorant, careless boys who are employed for the dipping out and measuring and selling of milk from their cans in the street.

Each source of infection contributes its quota of bacteria, and when it is remembered that, under favourable conditions of temperature, multiplication proceeds with incredible rapidity, it is scarcely surprising that by the time milk is consumed it is teeming with countless numbers of organisms.

Milk is an excellent culture medium, in which germs grow rapidly and multiply quickly.

The great danger attaching to milk as a carrier of disease depends upon its remarkable power of absorption and rapid fermentive changes which it undergoes when it becomes mixed with putrefying matter or tainted with disease germs.

If milk is kept in any close or badly ventilated place where foul odours are perceptible

it will very soon become tainted and unfit for use.

Milk is specially notorious as a vehicle for disease germs, notably tuberculosis, scarlet fever, and diphtheria, while typhoid is often spread by the use of infected water in dairies.

State certification of "high-grade" milk should be adopted in this country. At present the certificates which can be produced are not provided by the State, but by the vendors themselves.

At present we have no standard fixed by law which determines what degree of bacteria contamination is unavoidable. Some bacteria must always be present, but a low bacterial count can be obtained if cleanliness and great care are used.

In the first place the cattle must live in the open air, and every attention must be paid to their hygiene. They must react negatively to the tuberculin test, and be examined periodically by a competent veterinary surgeon. They must be kept well groomed, and wiped before milking with a damp cloth, the hairs on the teats kept clipped, the udder and teats washed and be kept scrupulously clean.

A separate shed should be used for milking, which should have ample light, air, and water, and be kept scrupulously clean.

Personal cleanliness is necessary for the dairymen, who must be healthy and free from disease, baths taken regularly, and the hands and nails well attended to. Any illness must be immediately reported.

When milking, the milkman wears a clean linen coat and cap, and washes his hands carefully before beginning work. The stool should be strapped to the milkman, so that after the hands have been washed nothing need be touched but the teats of the cow.

The first jets of milk from the teats are rejected, because bacteria commonly ascend the milk canals in the teats.

After the milking is finished the teats should be washed and dried.

The dairy where the milk is cooled and bottled after milking should be cool, and protected from flies and dust.

All utensils, such as bottles, pails, churns, &c., must be kept clean and sterilised.

Such milk supplies are rarely available, and all babies and invalids need protection against supplies which are short of the above ideal.

So until the seeds of education among the consumer and producer have developed for clean milk, and the habitual practice of those measures which will secure it, pasteurisation is the only safe solution of the milk danger.

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