

The Mysteries of Milk

(Reprinted from "Maternity and Child Welfare", September, 1930).

"In a recent issue of this journal the complex system by which we receive our daily milk bottle was described, but this is a simple programme in comparison with that followed in the production of milk powder. Scattered over the West of England are the "COW & GATE" factories, where, by the combined activities of chemists, engineers, and managers, not to mention the farmer and his co-operating cow, milk is petrified into a state of permanent freshness, like the sleeping beauty. From neighbouring farms the six-wheeled lorries bring in the milk to the factory in the morning. Every farmer is supplied with a strainer and a cooler by the factory; his churns are automatically washed for him on a revolving frame, first with cold water, then with water containing soda at 80°C., then with superheated steam, and finally with hot air to dry them. With such encouragement to cleanliness it is hard to realise that anxious supervision is also necessary; but the daily tests for dirty milk give varying results, and on centrifugalisation such a gruesome mass of slime and impurity is swept to the periphery as to make the thoughtful shudder.

The milk is weighed on arrival, and tested for fat, acidity and bacterial content as well as for cleanliness. From the first tank it passes to the centrifugal cleaner, and, rid of its impurities, passes over a cooler like a great screen of pipes through which circulates refrigerated brine. Here the milk trickles down in a miniature Niagara to pass on to the drying machines. These have great revolving rollers over which the milk flows steadily; the temperature within the rollers is 125°C., but that of the milk does not rise above 93°C. This is sufficient, however, to dry it very rapidly—within three seconds—and it forms on the surface of the roller a thin invisible film which is pared off it by a fixed knife edge, so that it rolls away into the trough below in a thin waxy sheet. Its adventures are not yet ended; it is shovelled into a sifter and revolving brushes force it through the mesh as a coarse, pale golden powder, ready to be packed and sent out to the world."

The above is a brief synopsis reprinted from "Maternity & Child Welfare" (September 1930) of the Roller Process employed in the manufacture of the well-known "COW & GATE" Milk Food.

This Food is now being used with striking success in all parts of the world as a substitute for mother's milk in cases where breast-feeding is impossible or is considered inadvisable under medical advice.

It should be added that the special "COW & GATE" process retains the *Natural* vitamins of rich Full Cream milk intact, and there is no necessity therefore for dubious artificial additions of any kind.

The milk used is derived from the famous West of England pastures which are rich in calcium salts and phosphates. That is why the Food builds strong bone and muscle as well as sound flesh. It does not make the fat and flabby baby so often produced by other artificial foods.

To suit the needs of those resident in hot countries where a smaller proportion of fat is required than is the case in England and the colder countries of Europe, Messrs. COW & GATE have prepared a special brand of their famous food, viz., Export Brand. This is in all respects the same as the Full Cream Brand on the Home market, excepting that the proportion of fat has been reduced and *standardized* at a ratio which, after prolonged expert investigation, has been found to be most suitable for tropical countries.

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Form of Application for Admission

To

The Trained Nurses' Association of India

or

The Midwives' Union

or

The Health Visitors' League

} Affiliated with
the T. N. A. I.

Name (Printed in full)

Training Schools.....

.....

Length of Training.....

Inclusive dates of training.....

Positions held subsequent to training.....

.....

Present nursing position (if any).....

.....

Present address (Printed).....

.....

Signature of Applicant.....

I have personally known.....

for.....years and can recommend her for Membership

of the T. N. A. I. I certify that the attached Copies of her certificates are genuine.

Signature.....

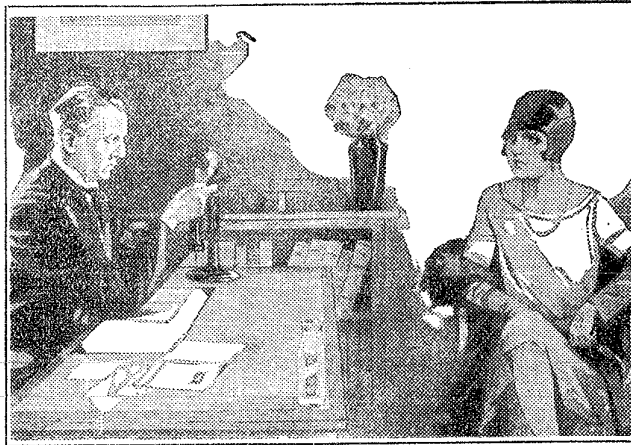
Position.....

Date.....

This form should be signed by a Nursing Superintendent or Medical Officer (not lower than the grade of Civil Surgeon), and should be sent to the Honorary Secretary, Mrs. Watts, Kilpauk, Madras, with copies of all certificates. No money should be sent until acceptance as member is notified.

Patient Types . . .

THE CHRONIC



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TRAVELLING CONCESSION CERTIFICATES

By the courtesy of the Railway authorities concessions are granted to trained nurses enabling them to travel in a class one higher than that for which they pay fare. On South Indian Railways the concession is one half the fare in the class for which ticket is issued.

Those members who can obtain their concession forms from their own hospitals are advised to do so to save time and inconvenience. If unable to obtain a form as above then proceed as follows :—

Write to the nearest District Secretary, (see page iii for addresses) or to the General Secretary if there is no secretary for your district, on the form given below.

The certificate when received from the Secretary should be sent with the prescribed form to the Divisional Superintendent in whose jurisdiction the journey is to be commenced, the Divisional Superintendent will then issue a concession which must be presented when purchasing the ticket.

N.B.—1. The use of blank forms has been prohibited owing, it is regretted, to their abuse in the past. Letters of application for concession certificates will not be answered unless the particulars on the form below are given.

Allow plenty of time when applying for the certificates. Your Secretary is probably a busy woman in a busy hospital and may not be able to reply by return.

The following is a list of some of the District Offices, but at most of the largest Railway Stations a District Traffic Manager's office will be found :—

E. I. Railway	... Divisional Superintendent	... Allahabad.
G. I. P. Ry.	... Divisional Traffic Manager	... Jhansi.
B., B. & C. I. Ry.	... District Traffic Superintendent	... Kotah (Metre gauge).
		... Delhi (Broad gauge).
O. & R. Railway	... Divisional Superintendent	... Moradabad.
N.-W. Railway		
S. I. Ry.	... Chief Commercial Superintendent.	... Trichinopoly.
M. S. M. Ry.	... District Traffic Superintendent	... Madras.
Punjab	... Traffic Superintendent	... Lahore.
N.-W. F. P.	... " "	... Rawalpindi.

To the { General } Secretary, T.N.A.I.....
 { District }

Dear Madam,

Will you please issue me concession forms for the journey

1. From..... Station on the..... Railway
to..... Station on the..... Railway.

(If through tickets for the whole journey cannot be obtained, give details of each stage for which a fresh ticket is needed.)

2. I intend travelling on or about..... 1931.
I enclose a stamped and addressed envelope for reply.

TNAI Regd. No..... Name.....

Date..... Address.....



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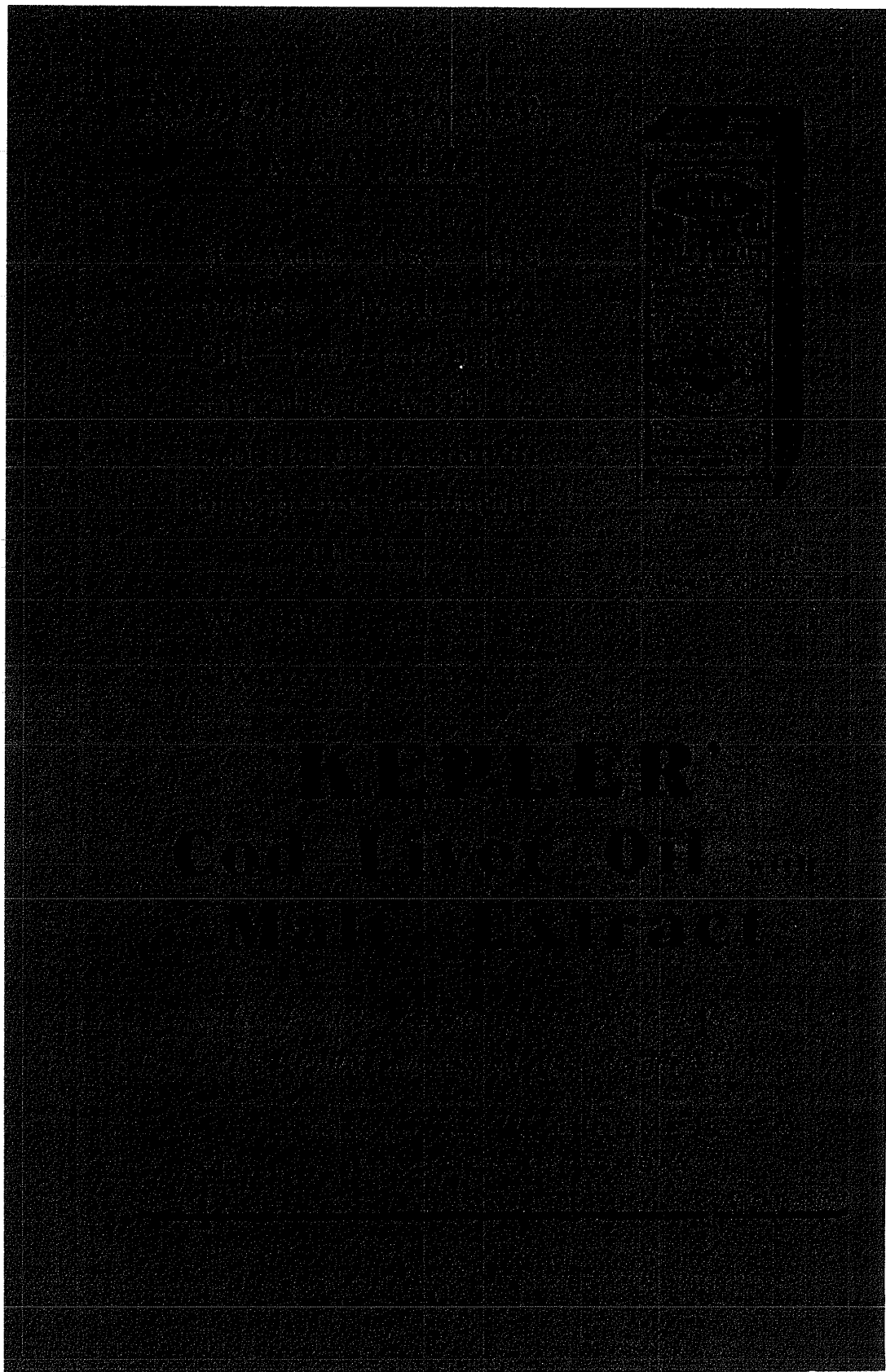
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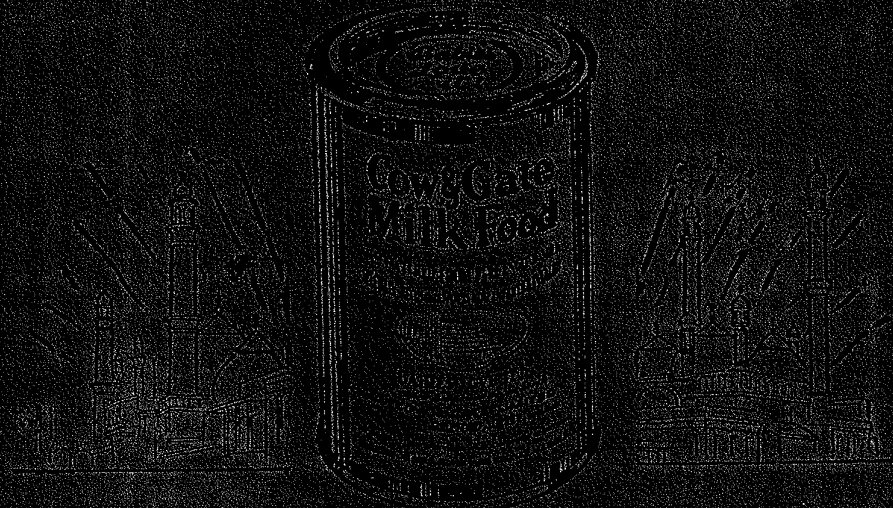
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MAY 1931

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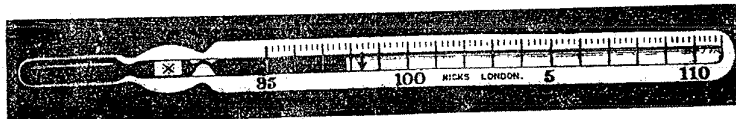
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