In the United States of America not only is the milk supply very carefully supervised, but in most of the large cities regulations exist regarding the supply of special milk for the use of infants. This milk is medically certified; it comes from tuberculin-tested cows, and has a bacterial content of less than 10,000 bacteria per c.c.

Owing to the intricacies of infant-feeding considered advisable by medical experts in that country, there exist, in addition, many farms and dairies where milk, as nearly pure as it is humanly possible to obtain it, is on hand for infant use on the prescription of a physician. Many milk depots also exist throughout the country.

In New York there is an "Association for Improving the Condition of the Poor," and, connected with this, is a "New York Milk Committee." This committee has recently issued a report, entitled "Infants' Milk Depots and their Relation to Infant Mortality," from which I take the following:—"In order to help reduce infant mortality, and to throw light upon important matters connected with it, the milk committee last spring decided upon a year's campaign, of which the following is the first quarterly report:—

"Its purpose, apart from the actual good which it hoped to accomplish through the saving of lives, was educational and constructive. It aimed to build upon foundations already laid, to take advantage of all demonstrated facts, rules and principles, and, with them as a starting-point, to see if, by any improvement, combination or arrangement, a better plan of reducing infant mortality than that which had hitherto existed could be worked out."

In most large cities in America similar agencies are at work, and the personnel of the "Committee on Milk and Baby Hygiene in Boston" is given as follows by the medical director:—

"I am often asked the question—What is the committee? It

1 "Some Results of the Work of the Committee on Milk and Baby Hygiene in Behalf of Babies." By John M. Connolly, Boston Med. and Surg. Journ., 3rd February 1910.
is an independent, self-constituted group now numbering thirty-seven. The chairman is Mrs. Mary Morton Kehew, President of the Women's Educational and Industrial Union; Dr. Walter B. Cannon, Professor of Physiology in Harvard Medical School, is Secretary; Mr. Arthur H. Brooks, an attorney, is Treasurer. It embraces the Professor of Preventive Medicine at Harvard; the Presidents of the Associated Charities, Children's Aid Society, Floating Hospital, New England Pediatric Society and the Massachusetts Red Cross; the Chairmen of the Board of Health, the Children's Institutions Department, the Health Committee of the Women's Municipal League; the chief of the Boston Milk Inspection Bureau; the headworkers of five social settlement houses, and the executives of several of the principal charitable societies; ten teachers in Boston medical colleges; and last, but not least, five practical dairymen.

On the 11th and 12th of November 1909 a conference called by the American Academy of Medicine was held, and, at its close, "The American Association for Study and Prevention of Infant Mortality" was organised.

In France, organisations exist called "Consultations de Nourissons." Some of these agencies are attached to maternity hospitals, and by means of them the children born in the hospital are kept under regular medical supervision for the first two years of life, while others act independently of hospitals. Again, other institutions, styled "Gouttes de Lait," are practically milk dispensaries from which infants are fed, under medical supervision, on milk supplied at the institution. At all these institutions the feature of the work—and the work is extremely successful—is the systematic medical supervision of the children, and, in most of them, "the milk is only supplied on the condition that the child is brought up once a week to be weighed and examined by the doctor who presides over the institution. It is in the matter of medical supervision that the chief difference lies between these French institutions and those" in Great Britain.

Similar institutions are now common throughout all European countries, and, in addition, most modern children's hospitals have connected with them a "milk kitchen."

In our own country, infants' milk depots, somewhat after the style of the French "Gouttes de Lait," have been established in many towns, most of them being, however, under the control of the municipal authorities. In this relation, M'Cleary says: ¹ "The

¹ Infantile Mortality and Infants' Milk Depots, 1905.
usefulness of the depot would be much increased if a consultation formed part of the organisation, as in the Goutte de Lait, especially if the consultation were open to nursing mothers. In this way the depot could be made a nucleus, not only of a Consultation de Nourrissons, but also of a more extended organisation for the encouragement of breast-feeding. Such an organisation, including religious and social workers amongst its active members, should be established in every district."

Under the ægis of the Local Government Board, two National Conferences on Infantile Mortality have been held in London, and there is some prospect of a third being held in the near future. Such conferences are, however, not necessarily associated with any permanent working institutions.

In 1905 there was held in Paris what was called the first Congress of the Gouttes de Lait; in 1907 the second Congress was held at Brussels, where it was decided to widen the scope of work to the protection of early child-life; and the third Congress of the International Union for the Protection of Early Child-Life is to be held at Berlin in 1911.

A report has been published by the permanent committee which met at Buda-Pesth in August 1909, and in most European countries, but not in Great Britain, National Committees have been formed in connection with the International Union.

Having in view the foregoing facts, it seems to me that the time is ripe, and that present conditions insistently call for practical forward steps.

The unnecessary loss of life and injury to health in early childhood in Edinburgh, while largely due to the effects of poverty, ignorance, and neglect, is directly occasioned by very various causes.

The agencies dealing with these conditions are many, but there is, undoubtedly, need for closer practical co-operation in their working, more especially in view of the statement in the report of the Poor Law Commission upon Scotland that "the poverty problem in Edinburgh, in so far as it is a money problem, does not arise from want of money, but from want of an intelligent working together of all the charities."

There is need, also, to emphasise the importance of adequate medical supervision, more especially in relation to agencies connected with the supply of milk or the feeding of young children.

The question of the supply of clean, cheap milk for young children is a clamant one, and although this is merely a part of
the much larger question of the regulations governing the general milk supply of the country, yet, while waiting for the satisfactory settlement of the wider issue, it would be of immediate practical value to develop such a plan as that of the milk depot whereby the child receives at least a safe milk. To be effective, the prescription and distribution of such milk should be under direct medical supervision.

Lady health visitors, milk depots, and all the various agencies concerned are only satisfactorily effective when associated with competent medical advice. As Holt says, in speaking of visitors, "they must not only be tactful in the management of patients, but must possess the special knowledge and training which qualifies them for the work. These teachers must themselves be properly instructed if results are to follow."

Except as regards suckling, every important factor at work in connection with children under one year of age is also a factor of great, if less, importance during early years; and while local authorities may be engaged in attempting the supervision of infancy, the benefits resulting from their labours would be more sure and lasting if these labours were closely identified with those of all other relief institutions.

Although there have been two National Congresses on Infantile Mortality held in this country, there is no existing permanent association, and, so far as I can learn, the International Union for the Protection of Early Child-Life is looked upon with distinct favour by those in this country who are interested in such agencies.

But this subject is being approached from many sides.

The municipal authorities are taking action with regard to the first year of life, and in connection with the Public Health Department a large band of voluntary lady health visitors, now numbering hundreds, is actively engaged in visiting, encouraging, and instructing poor mothers.

The School Board is developing "Care Committees" and widespread visitation of homes, and by means of these visitors, mothers may be instructed in the efficient care of young children under school age.

There is also in process of evolution a "League for the Conservation of Home Life," which aims at the world-wide dissemination of its views; at "the co-operation and approval of charitable societies and associations, and of religious and public bodies throughout the world;" at "combining the efforts of State,
Church, and philanthropy along the lines that will lead to the desired end," "by considering and inquiring into all the phases of a child's life, and dealing with the question as a whole."

It is obviously inadvisable to suggest new mechanism for dealing with the question. The mechanism in existence or in construction is already redundant.

From whatever source and along whatever lines progress is to be made, closer co-operation is a sine qua non, and in order that such progress may be practical and efficient, it must be under medical guidance.

I am well aware that it is dangerous to dissipate energy, and, consequently, I restrict my proposals to matters concerned with the provision for poor children of clean, comparatively cheap, milk.

It appears hopeless to look for a general supply of clean non-tuberculous milk in the near future, but it is certainly surprising to note the apathetic attitude of well-to-do parents towards the standard of cleanliness of the chief food of their children, and the weak-kneed subterfuges they are willing to adopt to obviate the glaring dangers. Young children in the west end drink as much milk as those in the east end; the dangers latent in it are, doubtless, less acute, yet they are great.

For the children of the poor, some form of milk dispensary is, I think, essential. It may be said, "Look at Glasgow!" Well, look at Glasgow. Glasgow made a mistake and had the sense and courage to own it. But the fact that an extravagant, ill-balanced scheme of milk provision for poor children proved a costly failure in Glasgow is no reason why Edinburgh should refrain from concerted action, along economical lines, in tackling the problem. Great expense is unnecessary; elaborate technique is out of place; the very sick baby is a baby for hospital treatment as in- or out-patient.

What we want is a milk-distributing centre in four or five of the poorer districts of the town—milk from which must be sold at cost price.

At each centre, at least once a week, a doctor should attend, and the milk be supplied under his direct supervision. This supply would be in sealed bottles, each bottle containing the amount for one feed; and the modification of the milk would consist in simply scalding and mixing with water.

By some such means, and with the co-operation of the lady
health visitors, a supply of safe nourishment could be ensured for healthy babies.

For many sick babies this supply would also be suitable. The condition of the child, however, might necessitate further refinement of milk modification. In this case, for educational purposes, the mother should, if possible, undertake it at home; but if the mother were unusually busy, ignorant, or dirty, the case would be a suitable one for treatment at a milk kitchen directly connected with a hospital. Such a laboratory is, of course, purely the concern of the hospital. Apart from it, the expense of such a milk scheme would be insignificant.

Connected with the Public Health Department of the city we have a large band of lady health visitors, whose visitation would go far to ensure success, and we have several junior physicians, unconnected officially with a hospital, but specially well trained in infant feeding, who are able and willing to undertake such duties as have been outlined.

Lady health visitors and physicians dealing with young children of the poorest class alike largely plough the sand in their efforts at the preservation or restoration of health, owing to the want of proper nourishment for their charges.

This want, I contend, is not due to lack of philanthropy in the town, but to misdirected philanthropy and the impossibility of obtaining a supply of safe, guarded milk suitable for young children. For cases attested as deserving by a health visitor, there are many philanthropic agencies through which financial aid could be obtained if a reliable supply of milk for infants was on the market.

Any scheme of this nature is bound to prove inadequate to meet the requirements in many individual cases. It is associated with so many vital questions of social life that it must be restricted to comply with broad general principles.

The first of these principles is the importance of education, the inculcation of facts concerning hygiene, the development of self-effort along proper lines. It is obviously unwise to do for the child's guardian what that guardian can do herself: when possible, milk modification must be undertaken at home. The milk, again, must be sold on business lines; it must be clean and guarded (bottled), but there must be no underselling of the dairies.

I believe economy in the running of such a scheme is another vital principle; expense must be reduced to a minimum. Mixing
the milk with water, when necessary, scalding this mixture, and bottling in separate feeds is sufficient procedure, and need be associated with but light expense.

There must be no draining of the resources of one class of society to meet the necessities—honest, or perhaps unnatural—of another class. But I think it is nothing more than ordinary humanity—not to mention self-interest as a community—that it should be possible for a guardian to obtain, by the expenditure of money, a safe supply of milk for his young children. At present this is impossible.

In the educated well-to-do class the danger is that of infection of the milk as obtained from the dairy; home infection of it is, or should be, practically non-existent. In the poorer class both types of danger are very real, and to meet the double danger milk must be scalded, and bottled in amount and composition suitable for a feed.

We are attempting to stamp out tuberculosis, and I entirely agree with those whose efforts are directed towards the segregation of infected individuals, and the rendering innocuous of obvious sources of infection. But I consider that a most important auxiliary step in the campaign will have been taken when a guarded supply of safe, cheap milk is on the market.

In the above I voice not only my own convictions and opinions on this subject, but, I am confident, the opinion of the entire medical and surgical staff of the Royal Hospital for Sick Children, as expressed at a recent meeting summoned by them to discuss the question.

At that meeting an influential committee was appointed to further the unanimous expression of opinion that “immediate benefit will be conferred on poor children in Edinburgh by closer co-operation of relief agencies, by stricter regulation of the milk supply, and by the development of special milk depots under direct medical supervision.”

But is not the subject one which demands an expression of opinion from the mass of medical practitioners in the city?

I think such procedure would be consonant, not only with the best interests of the citizens at large, but also with the eminent position of the medical profession in the city.