

deep in tunnels in order to study them.

With some 240 times the mass of the ordinary electron, basic unit of electricity, the heavy electron is lighter than the proton, the nucleus of the hydrogen atom. It may very well be triplets, for it would be logical for it to be found with negative and positive charges as well as no charge at all.

It is a very unstable creature, existing

theoretically for a mere millionth of a second when at rest. Strangely enough, it lives longer when it goes fast, owing to the relativistic change in time. One of them by great good luck was photographed at Pasadena coming to rest. Heavy electrons are supposed to disintegrate into electrons and neutrinos. And neutrinos are particles postulated but not yet discovered.

Science News Letter, September 24, 1938

MEDICINE

Future Babies to Arrive "At Home" Is Prophecy

Doctor and Nurse Will Hurry to Scene in Specially Equipped Autos; Specialists by Plane If Needed

TOMORROW'S babies will not necessarily be born in a hospital.

It will again be socially and medically acceptable to be born in the home of one's parents or in a village nursing home for obstetrics. In fact, such a birthplace will be safer and saner than the hospital for all who live outside of cities.

Dr. A. J. Skeel, director of obstetrics, St. Luke's Hospital, Cleveland, sees the maternity care of the future divided as follows:

1. In large cities all babies will be born in hospitals—special maternity hospitals or general hospitals that have small maternity units where mothers may be isolated from other mothers and babies from other babies. The big nurseries and maternity services of today will be taboo.

2. In the smaller community the babies of the future will be born in small nursing homes for obstetrics, no patients except maternity patients being accepted. When complications arise, a specialist will be summoned from the nearest large city. He will arrive by airplane to take charge of the delivery.

3. In the more sparsely populated areas, babies will be born at the parents' home.

Instead of taking the mother to the hospital, the hospital will come to the home if the family doctor thinks there is trouble ahead.

The family physician will send an SOS to a nearby medical center. Thereupon an obstetrician, nurses and all equipment necessary for operative work will speed to the home in an especially built automobile that can travel all sorts of roads in all kinds of weather.

There will be no charge to the patient. These medical centers, subsidized by the state or by some foundation, will serve persons living within a 75-mile radius.

Dr. Skeel outlines this threefold plan for future obstetrics in the 25th anniversary issue of *The Modern Hospital*, which reviews hospital achievements of the past quarter of a century and looks ahead to the next 25 years.

In criticism of present hospital care for maternity cases, Dr. Skeel finds the general hospital too often locks the barn door after the horse is stolen in the case of infections among the newborn. Larger nurseries and larger maternity housing units have been the order of the day. These may easily mean epidemics of sepsis and of infantile diarrhea, he says.

"Future building of maternity hospitals, either for specialized obstetrics or the obstetrical division of a general hospital, should be planned for small unit service only.

"With isolation to protect from external contamination and with the small unit plan to limit septic contacts by a rare case, arising sporadically, the hospital can provide patients greater safety than was possible before, either in the home or in the hospital," Dr. Skeel concludes.

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One person in every 14 in this country last year spent some time in a hospital.

Oklahoma City has remodeled 800 of its street corners to make it easier for automobiles to turn right.

MEDICINE

Sulfanilamide Seen As Scarlet Fever Preventive

SULFANILAMIDE, the drug discovery of the decade, has its place in preventing as well as in curing scarlet fever.

Take the case of the eleven English choir boys, one of whom contracted scarlet fever while in Chicago. He was taken to the municipal contagious disease hospital and then there were ten.

The ten were given 20 cc. each of pooled convalescent scarlet fever serum. On the eighth day one of the group took scarlet fever; then there were nine.

Mild forms of scarlet fever and streptococcal sore throat seized four others and then there were five.

The final five remained well, the same five that had been given sulfanilamide during the course of their isolation. The other six (who did not receive sulfanilamide) recovered after varying periods of convalescence.

The story of the 11 little choir boys is used by Drs. Wallace Sako, P. F. Dwan and E. S. Platou, of Minneapolis, (*Journal American Medical Association*, Sept. 10) in an article on sulfanilamide and serum in the treatment or prophylaxis of scarlet fever.

These doctors report:

1. Among 100 cases of scarlet fever treated with large doses of sulfanilamide, complications developed in eight. Among 100 similar cases in which the drug was not given, complications occurred in 41.

2. Scarlet fever is strikingly modified by early massive doses of anti-toxin contained either in human convalescent serum or commercial horse serum.

3. Human convalescent serum, although it has a lower antitoxic titer per cubic centimeter, has a distinct advantage over commercial antitoxin with respect to safety for intravenous use.

4. Pooled human convalescent serum (20 cc.) failed to prevent streptococcal invasion of scarlet fever in five of 10 boys who were intimately exposed to it, whereas five who received additional therapy (sulfanilamide) did not contract the disease.

5. Commercial antitoxin in their experience has failed to protect several persons against the streptococcal invasion of scarlet fever.

6. Early massive intravenous serum therapy combined with continued large doses of sulfanilamide seems to be the most effective treatment for scarlet fever.

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