

The average deathrate every year for five years at Queen Charlotte's Hospital for puerperal fever patients infected with hemolytic streptococci was 22.8 per cent, Dr. Colebrook reports. During the sixth year, when Prontosil treatment was given to all patients so infected except a few who were not very sick, the deathrate was 4.7 per cent. Very nearly four out of five previously doomed mothers were saved. Careful study of the records and of the patients at Queen Charlotte's Hospital and of the records at other large maternity hospitals in London has convinced Dr. Colebrook that Prontosil was almost certainly responsible for this remarkable improvement.

The chemical, which looks like nothing so much as red ink, is now being widely used in this country and abroad for puerperal fever and many other conditions due to infection with hemolytic streptococci. Dr. Colebrook hopes that properly controlled tests will be devised and used in the United States to confirm the results obtained in London.

Latest development in the treatment is the discovery by French scientists of another chemical which is not a dye and which is as effective as Prontosil, in

controlling infection in mice. This chemical is p-amino-benzene-sulfanamide, called sulfanilamide for short. It is now being tested at Queen Charlotte's Hospital. It has the important advantage of being much less expensive than Prontosil. The dye, Prontosil, is a patented product of the German dye industry, whereas sulfanilamide is a chemical that cannot be patented.

More important even than the saving of lives in childbirth and surgical infections promised by Prontosil is the possibility of its value in war. Stating that he hated war as much as anyone, Dr. Colebrook pointed out to his medical audience that war seems now so imminent that medical men must be prepared for it. Prontosil, or sulfanilamide, will be part of the future war surgeon's supplies, for streptococcus infections are perhaps the greatest danger he must fight.

"The appalling price we had to pay for streptococcus infections" during the World War was recalled by Dr. Colebrook in his address before the bacteriologists in Washington. This war-time experience, he said, was responsible for his present interest in streptococcus infections in childbirth.

*Science News Letter, February 20, 1937*

their greater longevity as compared with that of judges appointed in prior years. The average age of these later justices was almost four and one-half years greater than that of the earlier group—73.7 years as against 69.3," the life insurance company statisticians state in their report.

"During the 146 years that the United States Supreme Court has been in existence, 76 appointments and 2 reappointments—John Rutledge and Charles E. Hughes—have been made to this distinguished body. Of these 76 men, 66 are dead, their average age at death being 71.4 years. This cannot be called a particularly advanced age despite the fact that there have been three nonagenarians and nine octogenarians on the Supreme Court Bench since its foundation. As nearly as can be computed, the aggregate years of life expectation of these 66 men at the time of their appointment was 1,205, while the total number of years actually lived was 1,265. As a group, each lived about one year over the life expectancy of men of their ages in ordinary walks of life.

"Prior to the Civil War the picture was somewhat different from that following it. The total years of life expectation of the justices appointed during the earlier period numbered 712, while their actual years of life totalled 713. They thus fulfilled almost exactly the term of life that ordinary men of their age might expect. Subsequent to the Civil War, the number of years lived by the judges somewhat exceeded the expectation of life at time of appointment (522 years as against 493), namely, by not quite 2 years each over the expected. It can hardly be said, therefore, that life on the Supreme Court Bench is outstandingly conducive to longevity, as is generally supposed."

*Science News Letter, February 20, 1937*

#### VITAL STATISTICS

## Two Causes for Greater Age of Supreme Court Justices Today

**T**WO FACTORS have contributed to the fact that the U. S. Supreme Court today is made up largely of older men. One is the fact that the average age of justices at the time of appointment has been considerably older since 1862 than before that date. The other is that the average expectation of life for all men in the United States has increased materially as a result of improved public health and medical practice.

Expectancy of life at birth in the early years of the nation's and the Court's existence was between 25 and 30 years. Around 1850 men born in the United States had a life expectancy of 38.3 years. By 1910 life expectancy at birth for men had risen to 50 years and in 1930 it was about 60 years. These figures represent the average expectation at birth, but persons with better than average health may expect to live 70, 80 or even 90 years.

Justices of the U. S. Supreme Court

are not an unusually long-lived body of men, statistical analysis shows.

As a group, each of the 66 justices appointed since the Court has been in existence lived about a year longer than would be expected for men of their ages in the ordinary walks of life, statisticians of the Metropolitan Life Insurance Company have figured.

Since 1862 the average age of the justices at appointment has been considerably greater than before that date, the figures also show. The situation has been reversed in so far as Presidents are concerned, it is pointed out.

The greater average age at appointment of the Supreme Court Justices may be due to the fact that the rapidly growing complexity of our legal structure demands men of riper age. Whatever the reason, the average greater age of these appointees during the period since 1862 "seems not to have affected their ability to carry on, if we may be guided by

#### SAFETY ENGINEERING

## Mine Fatalities Cut During Past 3 Years

**T**HE record of mine fatalities in the last three years, in the United States, is the best in the history of the mining industry, reports the U. S. Bureau of Mines. Due to increasing study of the causes of mine explosions the number of yearly deaths has been cut to an average of 40 a year from the average of 542 deaths yearly prior to the founding of the Bureau of Mines in 1910.

*Science News Letter, February 20, 1937*