

The Depth of Space.

Sir Robert Ball, at the Royal Institution, recently delivered the last of his lectures on astronomy. He took for his subject "The Stars," those orbs which, though appearing so small to us because of their immense distance, are, in reality, great and shining suns. If, he said, we were to escape from the earth into space, the moon, Jupiter, Saturn, and eventually the sun would become invisible; but, as far as we are from the stars, they shine brightly to us.

Many of these stars are heavier than our sun. For example, Mizar, the middle star in the tail of the Great Bear, is forty times as heavy as the sun. To the naked eye there are five or six thousand of these heavenly bodies visible. In all probability there are worlds revolving around them.

Sixty-one Cygni is the nearest star to us in this part of the sky. Alpha Centauri, in the constellation Centaur, in the southern hemisphere, is the nearest of all the stars. The sun is a long way off, 93,000,000 miles. Now, multiply this by 200,000 and the result is, roughly speaking, 20,000,000,000,000, and this is the distance we are from Alpha Centauri.

Take the speed of an electric current, which is nearly the same as that of light, 180,000 miles per second—suppose a message to be sent at this speed from a point on the earth's surface, it would go seven times around the earth in one second.

Again, let it be supposed that messages were sent off to different heavenly bodies. To reach the moon at this rate, it would take about one second. In eight minutes a message would get to the sun, and, allowing for a couple of minutes delay, one could send a message to the sun and get an answer all within twenty minutes. But to reach Alpha Centauri it would take three years; and, as this is the nearest of stars, what time must it take to get to the others?

If, when Wellington won the battle of Waterloo in 1815, the news had been telegraphed off immediately, there are some stars so remote that it would not yet have reached them. To go a step further, if in 1066 the result of the conquest had been wired to some of the stars, the message would still be on its way. If the tidings of the first Christmastide in Bethlehem had been sent to the stars, there are some orbs, situated in the furthestmost depths of space, which would not receive the message for a long time yet.—London Daily Telegraph.

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