

Our Present-Day Wonders

General Science

WALTER S. GIFFORD, president of the American Telephone and Telegraph Company, in a commencement address at Cooper Union (New York):

Reading the morning paper the other day I noted that a dirigible had crossed over the North Pole; a rocket auto was said to have gone faster than two miles a minute and it was predicted that a flight around the world might be made in twelve hours.

Colonel Lindbergh, as chairman of the Technical Committee of an air transport company, was reported as saying that he would do all that is needed of him toward the starting of an air-rail line across the continent.

A demonstration was made of a broadcast of pictures by radio; a prominent doctor stated that he could foresee 150 years of life resulting from expected developments of medical science. A prominent psychologist urged the building of special hospitals which, he claimed, could solve the problems of mental maladjustments.

The United States Army announced that in its tests for gas masks it had developed a new process for extending the life of rubber under normal storage conditions from a few years to thirty-five years.

This is just a somewhat casual survey of a single morning's newspaper. While all of the things mentioned may not materialize, it seems to me indicative of the day and age in which we are now living.

It is sometimes a habit of younger people to feel that all of the worthwhile things have been done and that there is no opportunity open for them such as was open to the preceding generation. I am convinced that never before in history have the younger people of the world faced greater opportunities.

We are, in fact, engaged today in the development of a civilization based on the conquest of nature rather than the conquest of human beings. What we succeed in winning benefits every one and, obviously, the field for conquest is unlimited.

Already the results of this conquest which is scarcely begun have raised the standard of living in this country, so that it is no longer necessary for the mass of people to work twelve or fourteen hours a day. We no longer have in the cities the slums and destitution that we had a relatively short time ago.

In place, we hear of a cultural wage rather than a living wage. We have leisure such as was hardly imagined

possible and with it the opportunity for self-development and enjoyment, not limited to a few people but for all, except perhaps those who are physically or mentally incapacitated.

It is true that times change and with them change the requirements that make for success in life. Success in life to the individual in the days of ancient Rome was undoubtedly a different thing from success in life today. Moreover, opportunities for success then were limited to a very few. Today, in this country at least, they are open to all.

Although this has been called a materialistic age, achievement curiously enough is based more than it ever has been on devotion to an ideal. The ideal that has always been the inspiration of the professional worker and scientist—the ideal of service that has been dominant with teachers and professors in schools and colleges—has been adopted by business and is essential to success in business. . . .

It is a glorious time to live—a time when a single morning's paper comments casually on events, any one of which a century or two ago would have been sufficiently important for you and me to have studied about it in history.

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The Future of Mankind

General Science

J. B. S. HALDANE in *Possible Worlds* (Harper's):

It is quite likely that, after a golden age of happiness and peace, during which all the immediately available benefits of science will be realized, mankind will very gradually deteriorate. Genius will become ever rarer, our bodies a little weaker in each generation; culture will slowly decline, and in a few thousand or a few hundred thousand years—it does not much matter which—mankind will return to barbarism, and finally become extinct. If this happens I venture to hope that we shall not have destroyed the rat, an animal of considerable enterprise which stands as good a chance as any other of evolving towards intelligence.

In the rather improbable event of man taking his own evolution in hand—in other words, of improving human nature, as opposed to environment—I can see no bounds at all to his progress. Less than a

million years hence the average man or woman will realize all the possibilities that human life has so far shown. He or she will never know a minute's illness. He will be able to think like Newton, to write like Racine, to paint like Fra Angelico, to compose like Bach. He will be as incapable of hatred as St. Francis, and when death comes at the end of a life probably measured in thousands of years he will meet it with as little fear as Captain Oates or Arnold von Winkelried. And every minute of his life will be lived with all the passion of a lover or a discoverer. We can form no idea whatever of the exceptional men of such a future.

Man will certainly attempt to leave the earth. The first voyagers into interstellar space will die, as did Lilienthal and Pilcher, Mallory and Irvine. There is no reason why their successors should not succeed in colonizing some, at least, of the

other planets of our system, and ultimately the planets, if such exist, revolving round other stars than our sun. There is no theoretical limit to man's material progress but the subjection to complete conscious control of every atom and every quantum of radiation in the universe.

But, whether any of these possibilities will be realized depends, as far as we can see, very largely on the events of the next few centuries. If scientific research is regarded as a useful adjunct to the army, the factory, or the hospital, and not as the thing of all things most supremely worth doing, both for its own sake and that of its results, it is probable that the decisive steps will never be taken. And unless he can control his own evolution as he is learning to control that of his domestic plants and animals, man and all his works will go down into oblivion and darkness.

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