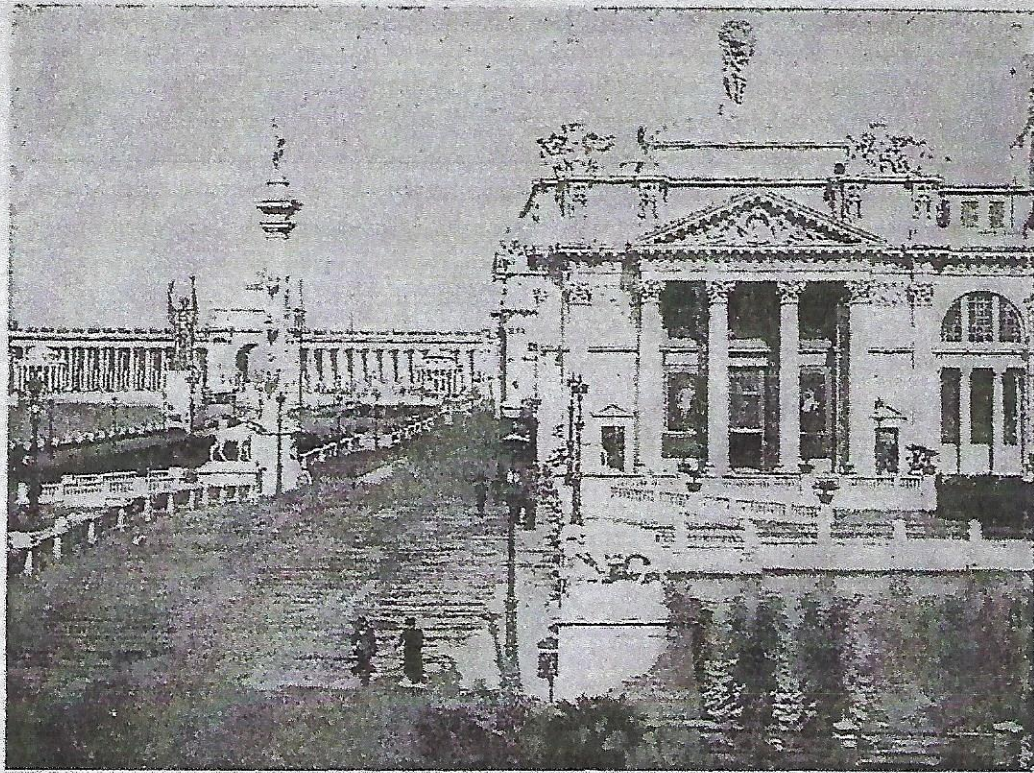


and splendid edifice. Man has learned hundreds of thousands of facts about nature and its forces, about the winds and the waves, the earth and the stars, heat and light, motion and force, electricity and magnetism, plant and animal



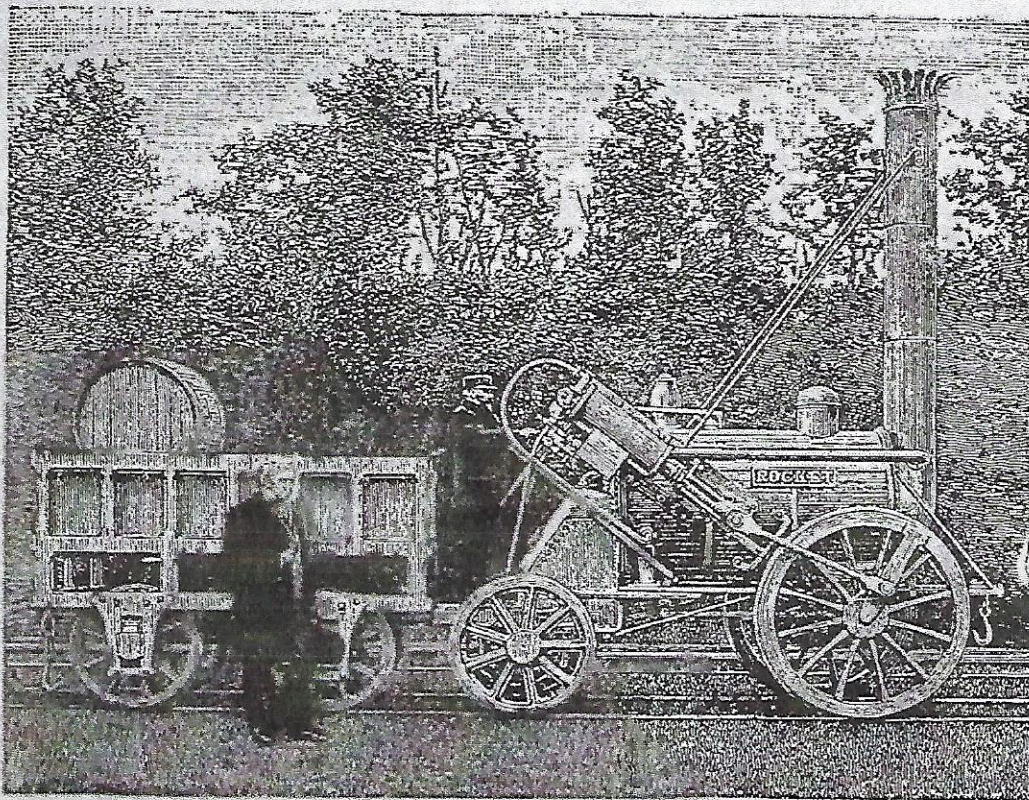
THE COURT OF HONOR AT THE CHICAGO WORLD'S FAIR.

life, and so on almost without end. This is the work of science, and its development is one of the greatest things which the world has to show.

. **The Miracles of Invention.**—There is another splendid field of discovery in which modern times have shown as great an advance as in that of science. This is the field of invention. Man has grown tired of the slow work of the hands and has set himself to develop the fast work of the machine. What we call labor-saving machinery has transformed the world of industry. It has been like Aladdin's wonderful lamp. Man has rubbed it, and a thousand mar-

vels have arisen at his touch. All civilized lands are now full of great factories and mills, filled with swift-moving and wonderful machinery, and from which flow goods of every kind in endless profusion, to be borne to all parts of the world and sold so cheaply that a peasant to-day can enjoy luxuries which the kings of old could not command. And the fields of the farmer are full of other wonder-working machines, and produce to-day tenfold the food which they did when men worked with their hands alone.

The Union of Science and Invention.—These are wonderful triumphs for the modern spirit of discovery, but



GEORGE STEPHENSON'S LOCOMOTIVE, THE "ROCKET," 1829.

they are not the whole. . The history of progress takes us into another field of discovery, in some respects the most wonderful of all. This is the field in which science and

invention operate together and produce marvellous results which neither could do alone. A few words will show what is meant by this.

Some Striking Examples.—Science discovered that steam, or water-gas, had a great pushing force. At once invention set out to use this force, and the steam-engine was discovered. Without this we would not have the factory, the locomotive, and the steamboat, which are the magic-makers of modern progress. Science discovered that the sunlight could make impressions on certain chemical substances, and invention gave us the marvellous photograph and the new art of picture printing. Science discovered the great force and strange qualities of electricity, and invention gave us the electric light, the telegraph, the telephone, the electric motor, and the trolley-car. These are a few of the ways in which the union of science and invention has benefited mankind.

The Treasures of the Earth.—You may see that we might go on and on, almost without end, with the story of what has been done by the modern spirit of discovery. Look at what man has discovered by digging into the earth and seeking for its treasures. Consider the vast quantities of iron and coal, of gold and silver, of lead and tin, and many other metals that have been dug up, and what great good they have been to mankind. Then there is petroleum, or rock oil, of which rivers have flowed up from the depths for our good; and natural gas, which serves us for light and heat; and rock salt, which we use on our tables, and a dozen things besides.

Progress in Government.—We must leave this wide field of discovery, which has been worked with such wonderful results, and consider some other phases of the modern prog-

ress of mankind. One of them has been a great advance in the art of government. The despotic rule of ancient times, in which the people were slaves to the kings, has given place to the limited monarchy of modern times, in which the kings dare not break the laws made by men whom the people elect for that purpose. And the little republics of old, which were made up of a city with a small territory around it, like that of Athens, have been succeeded by the mighty federal republic of the United States, which covers half a continent.

Manufacture, Commerce, and War.—Other great stages of modern progress are to be seen in the wonderful story of manufacture and commerce, which are making the world a hundred-fold richer than was ever dreamed of in the past. As for the terrible art of war, by means of which the kings and peoples of old sought to enrich themselves by plundering others, it is rarely used for any such purpose in modern times, and the time seems coming in which all disputes between nations will be settled by peaceful arbitration, and war will be at an end.

Freedom of Thought.—What has just been said leads us to consider another phase of modern progress. Man in modern times has been reaching out for freedom in all directions, and one of the best of these is freedom of thought. In mediæval times, as you have seen, the clergy were the lords of thought on all religious subjects, and it was not safe for any man to think in any other way than that laid down for him by the lords of the church. When people began to rebel against this slavery of thought, an attempt was made to control their minds by force, and the terrible persecutions and religious wars of which we have written came on. But all this failed, and to-day, in the most advanced nations,

men have full freedom to believe what they please, both about this world and the world to come.

The Spirit of Kindness.—One result from the passing away of persecution for opinion, and cruel punishment for crime, has been a great increase in the spirit of kindness in the world. There is to-day no more religion than there was of old. There is not as much of what used to be called religion. But there is much more morality, men are nobler and better and kinder than in the narrow and bigoted days of the past, and the noble doctrine of human brotherhood and love for all mankind which was taught by Christ is now being practised far more widely than ever before.

Narrowness of Sympathy in the Past.—In the far off times when Christ lived upon the earth and taught his sublime doctrines, there was none of the broad human sympathy among men that there is to-day. Greece was the most advanced country of the past, but a Greek looked upon a native of any outside country as a barbarian, with whom he had nothing in common and whose life and death mattered nothing to him. Rome was a far larger nation, with a broader feeling of brotherhood, but the Romans were cruel and cared nothing for human suffering outside their own circle of friends.

Mediæval Conditions.—In mediæval times man continued cruel and barbarous. He was narrow and ignorant, and had little more sympathy for the people of other countries than for the wild beasts of the forests. The punishments that prevailed were of the most terrible kind, and we read of things being done by men high in station which it would seem that none but demons could do.

Growth of Human Brotherhood.—Coming down to our own times we find a wonderful difference. A kindly feeling

has gone far to replace the cruelty of the past, and the old narrow national sentiment is fast dying away. The world is not one nation politically, but it is on the way to become one nation commercially and fraternally. The merchant-ship has brought the most distant nations close together, while the rapid and incessant travel of our times has produced a spirit of acquaintance and friendliness between the people of nations separated by wide oceans. It is this which is extending the sentiment of human brotherhood far beyond national limits. We can feel as warm sympathy for sufferers in far-off India as men once felt only for the people of their own city. Patriotism still exists, love for one's country is a good and useful thing, but the opposite sentiment of hostility for other countries is dying out, and very many of us are becoming in feeling "citizens of the world."

A Half-Told Story.—Such is a very brief review of the story of modern progress. A thousand things more might have been said about it if we had had the space, and even then it would have stayed half told. All we shall say further, then, is that man in modern times has made in many respects a great advance beyond ancient man. And he is in the pathway to greater progress still. Our feet have just been placed on the threshold of the twentieth century, and no man can say what it will bring forth. But the best thing we can hope for from it is a greater progress still in bringing about Christ's injunction of universal love, goodwill, and charity.

SUMMARY OF RECENT HISTORY.

EUROPE.

The Holy Alliance	1815
Austria suppresses the patriotic movement in Italy . .	1821
France invades Spain and puts down the patriots . . .	1822