the institutions and society of every uncivilized nation of the globe. The cotton manufacture of Great Britain may almost be said to date its commencement, as a branch of national industry and commerce, with Arkwright's invention in spinning machinery, soon followed, as it was, by Cartwright's invention of the power loom. Before Arkwright's invention, the whole annual amount of the cotton manufacture of Great Britain did not exceed £200,000: now it amounts to forty millions of pounds per annum! Then the raw cotton manufactured amounted to about four millions of pounds per annum; it now exceeds two hundred millions! Aided by this machinery, one person can now perform the work of two hundred and sixty-six persons before its invention. And if Arkwright's spinning machinery invention has added to the manufacturing industry of Great Britain what is equal to the labour of forty millions of human beings—twice the entire population—Watt's inventions and improvements in the steam engine, in its application to the manufactures alone, adds the power of more than one million of men, and, in connection with other machinery, performs an amount of labour, according to Dr. Buckland's estimate, "equivalent to that of three or four hundred millions of men by direct labour," besides its achievements on the continent of Europe and in the United States, in almost every branch of mechanical and manufacturing industry—and besides its navigation of the rivers and oceans and seas of the whole globe—thus changing the social condition of man. Take another illustration in the *bleaching* of linens and cottons. Formerly this was a process of six or eight months duration; and so little was it understood in Great Britain, that nearly all the British manufactured linens and cottons were sent to Holland, and bleached upon the fields around Haarlem. But by the application of chlorine, the property of which to destroy vegetable colours was discovered by a Swedish philosopher in 1774, the process of several months is reduced to that of a few hours.

And what advantages have accrued to mankind from Franklin's brilliant discovery of the identity of the lightning of the clouds, and the electricity produced by a piece of silk-rubbed sealing-wax—in consequence of which the thunder cloud is rendered harmless; and this very electricity is now employed as the medium of thought, with the rapidity of thought, between distant cities and countries. As late as 1789, a hope was expressed by the Southern members of the American Congress, that cotton might be grown in the Southern States, provided good seed could be procured. Shortly after, a Connecticut mechanic by the name of Whitney invented the Cotton-gin, for separating the seed from the fibre—an invention which has trebled the value of all cotton-growing lands in the Southern States, while it has given birth to a most important branch of American commerce and manufacture. How many thousands of lives have been saved by the safety-lamp of Sir Humphrey Davy; and how much are our comforts increased and our interests advanced by the discovery of carburetted hydrogen gas, by which common coal is made the brilliant illuminator of our streets, our shops, and dwellings.

And while there is an unmeasured field of improvement and prosperity spread out before us in the landscape of the future, we are not to suppose that there remains nothing for us to achieve in the field of discovery and invention. The steam-engine itself may be but in the infancy of its perfection; the locomotion of the present may be but a snail's speed to the locomotion of the future; and the most admired inventions and machinery of the present age may be thrown aside as useless in comparison of the inventions and machinery of a coming age. Unknown principles, and elements, and powers, now mysteriously operating around us, may be to our descendants what the mechanical agencies of air and steam are to us; and the past progress in the arts and sciences may be only the introduction to future advancement. May Canada share largely in the honors and benefits of that advancement; and may the generations of