

## The Science Meeting in August.

[*Montreal Witness.*]

The American Association for the Advancement of Science will meet in Montreal during the last week of next month. This Association since its formation, thirty-one years ago, has attained a growth and done a work which fairly entitles it to comparison with its famous prototype, the British Association, founded twenty years previously. The eminent naturalists, chemists, botanists, astronomers, electricians and others who belong to these Associations usually give the results of their best original work to the public for the first time at these meetings, so that the papers read, the experiments conducted, and the specimens and models shown at these gatherings stimulate interest and enquiry not only among the membership of the Association but also among the thoughtful and studious in the cities honored by the assembly. In migrating, too, annually from place to place, the Association becomes acquainted with the scenery, the geological features and the special industrial wealth of all parts of the continent, and great good must accrue from the trained observation of specialists in mining, pisciculture, forestry and manufacturing in this broad Canada. It has been noticed in the United States that educational and scientific work invariably receive a marked impulse in the city selected as a place of meeting by the Association. With these benefits before us, we should not, as citizens of Montreal, be wanting in performing our part toward making the August meeting a success. Our City Council have made a liberal grant to aid in the necessary expenses of reception, and our steamship, railway and steamboat lines have made liberal concessions, and in some cases agreed to give free excursions to our distinguished visitors, but our citizens generally have something more to do. August is the month when our hotels are usually overflowing with the tide of summer travel, and the two principal ones finding their accommodation insufficient are extending their premises, so that our visitors, who are expected to number twelve hundred probably, must be provided for in the main by hospitality. The special committee formed for the purpose of obtaining this hospitality have during the past month sent several hundred circulars to the principal householders of the city soliciting it, and the comparatively few responses received so far make the committee fear that when our scientific friends arrive many of them will be unprovided with shelter. Should this fear be realized the effect would be greatly to mar the pleasure and interest of the most distinguished meeting ever held in Canada. We trust that our readers, as far as their opportunities may permit, will do what they can toward the reception of the Association. In many cases where a large house is deserted for the summer by all its inmates except one or two, it may be impossible to offer our guests more than lodging, still such an offer will relieve the main necessity, as the hotels, restaurants and boarding-houses can provide meals for hundreds whom they cannot lodge. Mr. J. Bemrose, Secretary of the Special Committee, may be addressed at the Natural History Museum by any householder having accommodation to offer.

There are three wicks to the lamp of woman's brain—brain, blood and breath. Press the brain a little, its light goes out, followed by both the others. Stop the heart a moment, and out go all three of the wicks. Choke the air out of the lungs, and presently the fluid ceases to supply the other centers of flame, and all is soon stagnation, cold and darkness. —Oliver Wendell Holmes.

## Weather Factories.

*International Review.*—It is curious how many myths of ancient times have been surpassed by the realities of the present age. Prometheus pilfered the fire of Jove. We have got hold of his thunder, too. Our Hesperian gardens produce freedom and diamonds, as well as gold. Our traveling Arions need not bestride a dolphin to defy the winds and the tides. The good steed Bayard would be eclipsed by the iron horse as the darts of Uarris by a minnie ball, the *ultima thule* has become a half-way station of our whaling fleet. Tethys and the Oceanides could foretell a sea-storm; we predict all sorts of weather, and begin to manufacture them.

The Ashantees are not the only people who have attempted the problem of weather generation. Centuries before the foundation of Rome the Etruscans had a temple of the Apollo Hiemalis, with a grove, where the malevolence of a backward spring was propitiated by peculiar mysteries, and Columella, the Roman Huxley, ridicules the inhabitants of a little oasis in the Province of Numridia, who tried to break the spell of a summer drouth by flogging a serpent. What would Columella have said about a systematic attempt to improve the weather of a whole province? A few months ago (September, 1881), the St. Petersburg Gazette published the debates on a number of legislative amendments for the promotion of forest culture in the provinces of Kazan and Astrakan, "with a view of improving the climatic condition of Southern Russia." The Imperial Council has since sanctioned these amendments, thus following the precedence of Prussia, France and Egypt in recognizing the importance of the strangest discovery since the reappearance of the lost Atlantic: of the fact, namely, that Nations are the arbiters of their climate vicissitudes; that the tree-destroying axe has turned thousands of garden lands into deserts, and that the greatest of all earthly evils has been caused, and may be cured, by the agency of man.

Just about three hundred years ago Bernard Galiss, the Nestor of the Huguenots, called attention to the meteorological changes in Southern France, where the denudation of the mountain ranges had made the summers dryer and the winter storms more destructive by removing the natural barriers to the force of the wind and turning mountain brooks into torrents. But the full significance of these phenomena was only realized when Humboldt published his work on the climatic influence of vegetation. The culture of forest trees then became a special science; the writings of Amersford showed that their destruction had caused the irruption of the Zuyder Sea and blighted the fertility of the Azores, and, by comparing the ancient historical with the present condition of Southern Europe, it was found that the same cause had produced a change which more than verified the omen of the Paradise legends. In a recent number of the Popular Science Monthly (January, 1882), Mr. Frederick James describes the climatic amenities of Western Arizona, where the sirocco of the Colorado Desert is often accompanied by violent sand showers, which once in a few hours almost obliterated the track of the Los Angeles Railroad. If a shower of that sort were to descend on the garden regions of Southern Massachusetts, and continue for twelve days and twelve nights, the result would give us an idea of the contrast between the present and the former appearance of Asia Minor. The barren mountain ridges that characterize the landscapes of our Bible illustrators are as anachronistic as the siege guns in Giorgio Vasari's "Destruction of Jerusalem." Even during the last centuries of the West-Roman Empire the luxuriant fertility of Western Asia must have surpassed anything produced by a com-

bination of natural advantages with assiduous horticulture or landscape gardening in the happiest valleys of our Atlantic sea board; gardens and forests of fruit trees must have clothed the hills to their very summits to support the teeming population of the ten Roman provinces between the Caucasus and the Archipelago. On an area of thirty thousand square miles—about the size of the State of South Carolina—Mithridates raised armies which resisted the power of Rome for twenty-two years, the six west provinces were studded with towns that could emulate the luxury of Alexandria. While there own country was yet in the prime, Syria was to the citizens of Rome what modern Italy is to the rest of Europe, the Elysium of poets and pleasure seekers. About a century after the death of Alexander the Great some mercenaries of Gaul found their way to Asia Minor, and their return to their native country created a bonanza sensation which induced sixty thousand of their countrymen to abandon their homes and fight their way across Southern Europe, in order to reach that lubberland of the East, where the survivors actually gained a foothold and founded the Province of Galatia, Cyrus the Great used to pass seven months of the year at Babylon, on the Euphrates, in a "region of perpetual spring," as Xenophon calls it, and Hadrian, Septimus Severus and Sseleucus Nicator had their favorite country cats in the Valley of Daphne, where even a Greek could forget his native land.

And the axe alone has blighted all but a few mountain nooks of the seagirt Eden: the coast regions from Gaza to Trebizond resemble the shores of the Dead Sea. Nothing short of a miracle would induce the Jews to recolonize the promised land of their fathers. In Syria, in the land of *Fentes umbrosas* and meandering meadow brooks, water is now as scarce as in the Llanos Estacados. Asia Minor has become the epitome of a dying continent; her poverty and the hellish harmattan, the firewind of the Arabian Desert, are now her only protection against a western invasion.

Judging from the description of ancient geographers, the climate of the North African provinces must have resembled that of our Gulf States—Florida and Southern Texas—for even in the third century the Cyrenaica (the modern Tripolis) had eighty Christian Bishops and a population of ten or twelve millions; two hundred years later famine and droughts had reduced that number to six millions; but the reckless destruction of forests continued from century to century, though Terentius Varro had already warned his countrymen that in the *deserts* (a word which had not yet acquired its horrid literal meaning) posterity would hold a destroyer of a tree nymph as guilty as a murderer. In Africa, Syria, Asia Minor, Armenia, Persia, Greece and Spain, the agricultural value of the low lands has been reduced by more than 80 per cent.; in Italy and southern France at least one half; on the Eastern continent, a once lavishly-fertile territory of seven million square miles has been withdrawn from human use. The two Americas contain about fifteen million square miles; but, if we deduct the snow wastes of the Hudson Bay territory, Labrador, the deserts of our own Great West, and the South American paramos and fever swamps, we must agree with Charles Laurent that the gain by the discovery of Columbus has hardly balanced the loss through the neglect of Varro's warning.

When the population of Italy had reached its maximum, the highlands of the peninsula were still clothed with splendid forests, abounding with game, honey and wild-growing berries, and the agricultural regions were blessed by a combination of the happiest climate and the richest soil, with other advantages, which make one suspect in spite of