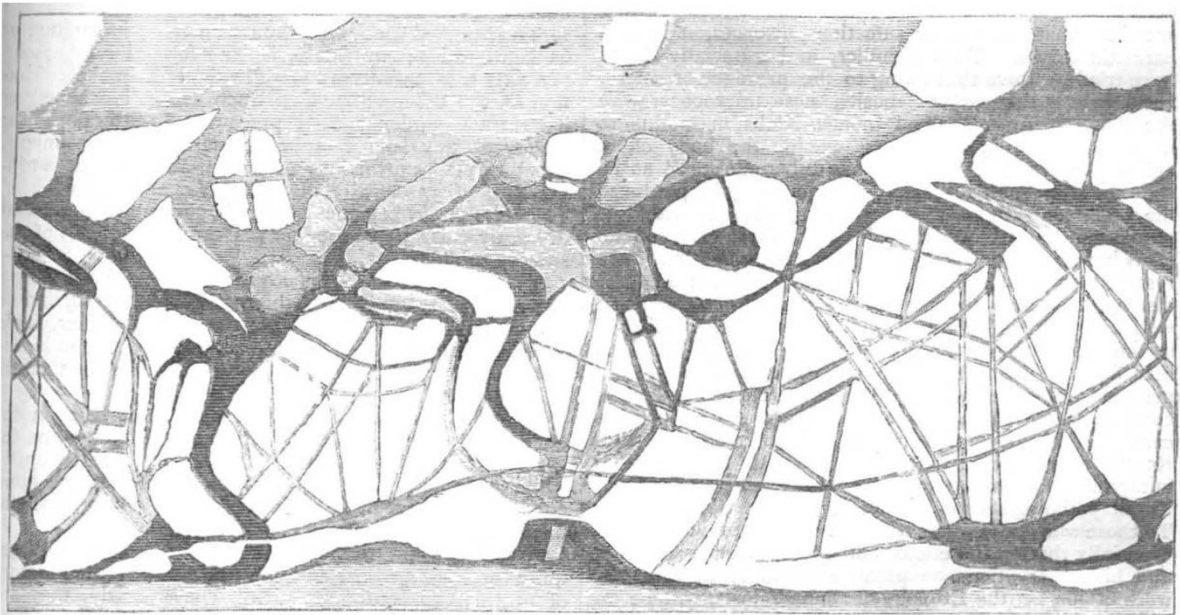


RECENT DISCOVERIES IN THE PLANET  
MARS

AN intended article, of which an announcement appeared in NATURE a few weeks back, on the topography of Mars as delineated for the second time by Prof. Schiaparelli at Milan during the opposition of 1879-80, has been anticipated and in part superseded by information which has been received relative to the more recent discoveries made by him in the beginning of the present year. Pending the preparation of a fuller and more detailed memoir, he has published a preliminary notice, read before the *Accademia dei Lincei* on March 5, and accompanied by a photographed drawing of the planet's surface. The results are of a very remarkable and unexpected character; and as through the courtesy of this distinguished observer, the notice and photograph have been placed in my hands, I am induced to reproduce the latter, which, though not pretending to minute accuracy (the original, in fact, is only a provisional sketch), will give a sufficient idea of the marvellous duplication of the so-called "canals," which, between

January 19 and February 24, in about twenty instances, unfolded itself progressively under the observer's eye. The discussion which took place at the late meeting of the *Astronomical Society*, so far as my information extends, substantiated strongly by independent evidence the existence of these long, narrow streaks, some of them even in positions where they have not been delineated by Schiaparelli; but their duplication by similar and parallel lines does not seem to have been elsewhere noticed. Some difference of opinion may possibly be expected concerning these strange appearances; and the consequent enfeebling (to say the least of it) of the long-admitted terrestrial analogy may be, to some minds, unacceptable; but the established reputation of the observer demands at any rate a respectful attention to his statements. It may be preferable to suspend a more detailed account till we receive a full elucidation of the subject in the memoir, of which we possess only a preliminary notice; for the present it may suffice to mention that he found the atmosphere of Mars apparently clearer than in 1877, and was thus enabled to recover the markings then detected more satisfactorily



even than in 1879-80, and to confirm the general accuracy of his two earlier charts; while the concise, but very clear intimations that he has given, as to the variable brightness of some great regions, the progressive enlargement on one side since 1879 of the "Kaiser Sea" (his *Syrtis Magna*), the brightening of certain supposed continents or islands towards the limbs, the confirmed existence of oblique white streaks, the unfolding of minute labyrinthine detail, and the continuous development already mentioned, day after day, of the collateral lines which double the so-called "canals," and extend with them ordinarily along great circles of the sphere—all these and similar announcements make us anxiously desire a more extended and detailed communication. For some of these most remarkable appearances parallels may be to a certain extent produced from the results of earlier observers; but, so far as at present appears, the duplication stands alone. The discoverer is disposed to infer a connection between these progressive developments and the seasons of the planet, and on that account hopes that, owing to the position of the axis at the ensuing opposition at the opening of 1884, notwithstanding the diminished diameter (only 12"9), confirmation of his announcements may be obtained from

other observers. We sincerely trust that a report which has reached us may be verified as to the erection of a much larger telescope in the Royal Observatory at Milan, and that the extraordinary talent and diligence of the director may be richly rewarded, not only by the confirmation but the extension of results which must so materially influence our conclusions as to the physical condition of this peculiarly interesting planet. T. W. WEBB

THE CAUSE OF TUBERCULOSIS

THE first step in the rational treatment of every malady is obviously the recognition of its cause, and it is this recognition which enables medical men to do battle against disease. It is a truism to say that as regards infectious maladies the knowledge of their cause is an essential step in preventing their spread and arresting their ravages. The malady known as tuberculosis, and generally characterised by constitutional disturbance associated with the production of minute nodular new-growths in the various organs, especially the lungs, spleen, lymphatic glands, serous membranes, the membranes of the brain, liver, &c.—[at first greyish and transparent, but