
SUN SIGNALS TO MARS.

TO THE EDITOR OF THE TIMES.

Sir,—Two facts appear in the papers—the one that an old French lady bequeathed a considerable sum for attempts to communicate with the planets, which has been perhaps rashly rejected; the other is that the planet Mars is now so near us that the exceptionally large magnifying power usable at the Lick Observatory brings it optically to within 50,000 miles. To these I will add a third fact, derived from my own experiences in sun-signalling many years ago by a method described in the “Art of Travel.” It then appeared that a reflected beam of sunlight sent through a hole in a plate in front of the mirror was just distinctly visible as a faint glint at a distance of ten miles when the hole was a square of one-tenth of an inch in the side. The amount of fog and haze that a beam of light would traverse between us and Mars when the planet was high above our horizon could not exceed that along a terrestrial base of ten miles; consequently the same proportion between the size of mirror and the distance would still hold true. It follows that the flash from many mirrors simultaneously, whose aggregate width was 15 yards, and whose aggregate length (to allow for slope) was, say, 25 yards, would be visible in Mars if seen through a telescope such as that at the Lick Observatory. With funds and good will, there seems no insuperable difficulty in flashing from a very much larger surface than the above, and sending signals that the inhabitants of Mars, if they have eyes, wits, and fairly good telescopes, would speculate on and wish to answer. One, two, three, might be slowly flashed over and over again from us to them, and possibly in some years, to allow time for speculation in Mars to bear practical fruit, one, two, three, might come back in response. Dr. Whewell, if I recollect right, wrote a paper on the possibility of coming to an understanding with lunar inhabitants, if there were any. He would begin from the mathematical side.

The practical difficulty is by no means insuperable, of enabling many independent observers (who need not be near together) to direct their flashes aright. If mirrors could be mounted without much cost as heliostats (and perhaps they can be) it would be easy enough to do this. My own method is not practicable, at least without considerable addition and modifications, as it requires the object to be visible towards which the flash is directed, but Mars is not visible to the naked eye at day.

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