

THE EARTH REVERSED

WHAT THE EFFECT OF AN OPPOSITE REVOLUTION

Idle Speculations Upon an Unscientific Proposition—Sudden Change In the Motion of the Earth Would Result in Annihilation of Life and Disintegration.

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"Suppose the earth should suddenly be reversed on its axis?"

"What?"

"Suppose the revolution of the earth on its axis should suddenly be reversed—what would happen?"

"Scenes worthy of the day of judgment," responded the doctor, "only it isn't supposable. Still," he added, "it opens a curious field for speculation. Rather interesting."

"We must first define the assumption," he said, "just what is reversed. If we mean simply the solid earth and all that is strictly coherent with it, the direct results would be instant and appalling.

"All objects near the equator are mov[ing] eastward at the rather more] than 16 miles a minute. If the earth should suddenly, not merely stop, but begin to rotate with equal speed in the opposite direction, everything resting upon its surface would be hurled from its position with incredible violence. Every building in the world would be instantly demolished, and its fragments scattered along a splintery trail for leagues to the eastward. A man rising quietly across a broad prairie would be dashed against the distant cliffs on its eastern border before he could utter a single cry, and both horse and rider would be smashed to atoms by the impact—as completely as if they had fallen from the sky. For consider, it would be like the collision of two railway trains, each moving at about 30 times the usual speed; the man's inertia would fling him eastward at the rate of fully 981 miles per hour, and the hillside would clap against him, rushing westward with equal velocity. The great bowlders lying loose on the mountain tops would be projected like cannon balls to distant regions, and would plough into the ground like meteoric stones. A rifle ball, however if discharged toward the west at the instant of the reversal would seem to hover for some moments in about the same place, and would finally drop near its starting point."

"And how about the trees?"

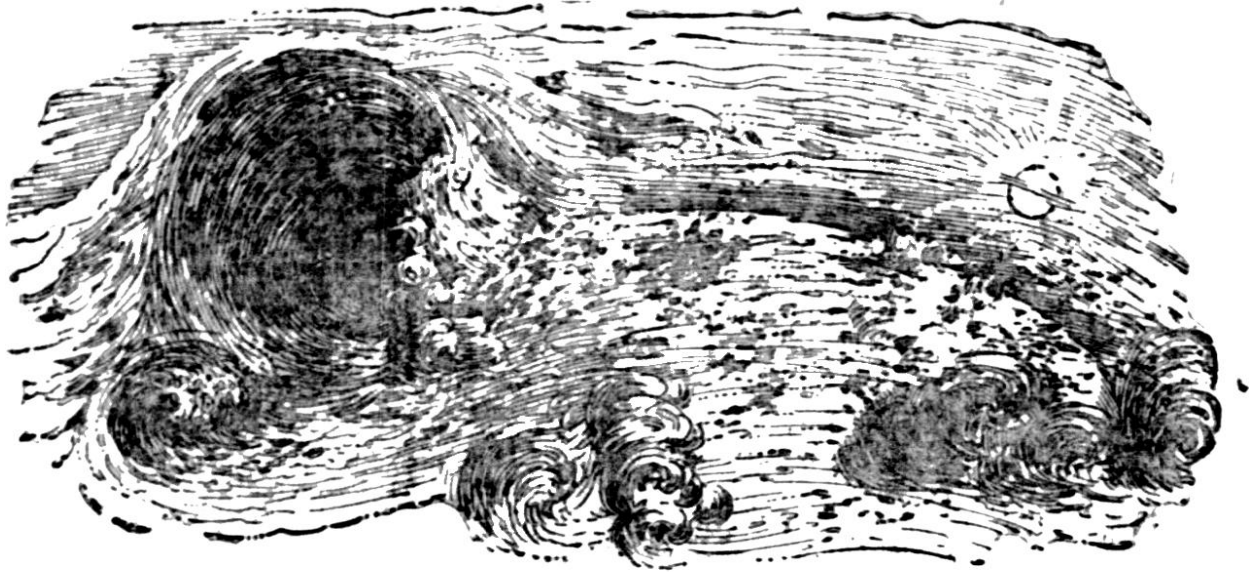
one left to search for them; and the debris of San Francisco would in all probability be hopelessly mixed up with the scant remnants of Chicago and New York; for inertia and wind and wave would all combine to sweep them eastward."

"And would the earth ever again become habitable?"

"Yes; in time. But since only the lowest forms of life could survive such a cataclysm—and these would chiefly be marine organisms of the simplest structure—evolution would have to take a fresh start almost from the primordial germs. Countless ages must elapse before the world could be re-peopled.

"Furthermore, the world in which this new and genuinely post-diluvian race would find itself would present some strange contrasts with the world as we know it. For instance, the sun would rise in the west, and set in the east. The action of the tides would be curiously altered. The course of all [the?] periodic winds and the great ocean currents would have suffered marked modifications. Even the procession of the equinoxes—that slow wobble of the poles—would be reversed.

"But there is still another factor to consider—one which we have thus far completely ignored. If we supposed the reversal to be effected by any real force—electrical, for instance—such as might conceivably reverse the motion of a revolving wheel—if, in short, we assume a power not absolutely miraculous and above all natural law, every atom of matter in the earth would be subjected to such a shock



THE SEA WOULD BE FLUNG FROM ITS BED.

The doctor, by the way, is not an M.D., but a Ph. D., and his name is not wholly unknown to the public. I am not at liberty however to mention it.

"Of course, it is interesting," I assented. "Tell me all about it—from a scientific point of view."

He eyed me suspiciously. "You mustn't quote me," he said. "It isn't a scientific proposition. There is no known force that could bring about such a result, and I can't afford to have my name associated ~~ing eastward at the rather more~~ with such madcap theorizing. Yet granting the impossible assumption, the rest-the necessary results-can be figured out with scientific accuracy. I must admit, such a speculation appeals strongly to the imagination; and if you hold rigidly to the logic of your premises, it is not wholly unprofitable."

"Give me your ideas," I cried, "and I promise to respect your reputation. Tell me just what would happen."

"Unless they were included in the assumed reversal, so that the effects of inertia would be obviated, their trunks would be snapped like pipe stems, and the wreck of forests would sweep over the land like a giant broom, until gradually checked by friction. But even if we assume them, as being rooted in the earth, to be included in its reversal of motion, they would not fare much better. For the inertia of the atmosphere would give rise to a wind which would strip them of every leaf and branch—or rather, a hurricane which would tear them up by the roots and bear them bodily to remote districts. Meanwhile, the setting sun would back up through the sky, giving for the nonce 24 consecutive hours of daylight.

"Moreover, the sea would be flung from its bed, and would surge in an overwhelming tidal wave across the continents. When the waters subsided, the wrecks of the Japanese war fleet might be found scattered amid the ruins of San Francisco—only there would be no

and tension that a degree of heat would be generated sufficient to fuse and vaporize the entire mass. And obviously, if we admit this, all the rest is either forestalled or absorbed in the greater catastrophe. For on this hypothesis the earth would be brought back to its original condition as a nebulous agglomeration of super-heated vapors, like those which flame and whirl in fiery eddies upon the incandescent surface of the sun, giving rise to phenomena of sun spots, 'prominences,' and the 'corona' observed during an eclipse. In that case aeons of time, a slowly lapsing cycle vastly exceeding that implied in all geological history, would be required to restore the world to its present habitable state."

"There is more science in this thing than I could have believed," I exclaimed.

"Call it scientific elaboration of a thoroughly unscientific hypothesis," he concluded.