

people above ground, but it was in fact a rather unpleasant reality to the laborers below. To resist the pressure of water it was necessary to force a condensed atmosphere into the great chamber. In the New York caisson the pressure of air at the last was equal to 35 pounds to the square inch. Breathing was a labor, and labor extremely exhausting. Yet brave men subjected themselves to physical suffering of this sort day after day, that the great work might go on, until in many cases nervous diseases and paralysis would follow.

One afternoon word was brought to the upper world that the Brooklyn caisson was *on fire!* The engineers were at once notified, and set themselves resolutely to confront the unexpected and, indeed, appalling danger. Some workman's candle had ignited the oakum with which the seams were caulked. Unnoticed at the time, the fire crept upward and attacked the mass of timber, 15 feet thick, of which the roof of the caisson was composed. Here it was almost inaccessible, by reason of the superincumbent mass of granite, and the fact that the ceiling of the caisson was as yet unaffected. The workmen were not themselves aware of the fire, when they were quietly summoned to come up, and firemen took their place.

Streams of water were directed upon the fire through auger holes drilled for the purpose, but unsuccessfully. Then exhaust steam was used in the same manner, and, to the great relief of the anxious watchers, the flames disappeared. But the carpenters, who were directed to ascertain the extent of the damage, upon removing a portion of the ceiling, found that the fierce element was still raging with what appeared to be inextinguishable fury. If it could not be checked the whole tower, which was then pretty well advanced, would soon tumble in ruin through the smouldering caisson to the river's bed. Colonel Roebling was summoned at midnight, and at once resolved to flood the work. The pressure of air was withdrawn; the water oozed through every seam, assisted by a deluge from above, and in a few hours the caisson was thoroughly saturated.

This occurred on a Thursday. On the following Monday the waters had been expelled, and an examination revealed the welcome fact that the damage was not irreparable. It is alarming to think what the result might have been if the presence of fire had not been accidentally discovered before it was too late. To avoid a similar