

a human type in which vast intelligence is found dissociated from virtue." He was not impelled by the desire to do good, but by "an almost maniacal" love of fame. In exact contradiction of Carlyle's conception, the hero in this case "is really a great deceiver, a man who revels in the thought of governing mankind by their credulity; who, brought up in Europe, as it were, discovered for himself the art of the great Prophet conquerors of Asia." What has generally been regarded as an aberration in Napoleon is thus represented as his main design.

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### SCIENTIFIC DEPARTMENT.

SALMON ON THE PACIFIC COAST—MOUNTAIN SICKNESS.—INFERNAL MACHINES—  
DAWSONITE.—STANDARD TIME.

During a portion of the year the canning of Salmon gives employment to a large number of persons on the Pacific Coast, and the Salmon thus preserved is sent in large quantities to Europe, as well as to the eastern part of our own continent. It may be interesting, then, to know something of the habits of these fishes which both directly and indirectly furnish food, to a greater or less extent, to many of the inhabitants of Europe and America. From observations recently made, it seems there are at least five species of Salmon in the Northern Pacific. Certain of these habitually *run*, or leave the ocean and move up freshwater streams for spawning purposes, in the Spring; whilst others *run* in the Fall. Those that *run* in the Spring ascend only rivers that have sufficient volume to send their waters well out to sea. The Spring-running Salmon are more desirable for canning purposes, for the richness of their flesh has not been reduced by preparation for spawning until long after they have entered the rivers. When once the Salmon have left the ocean for the river they push on and on, without ever taking food till they reach a place suitable for spawning, in search of which they ascend the streams for distances varying from 4,000 to 8,000 miles. As they ascend, their bodies become covered with bruises received in their struggles with the rapids of the rivers. At the same time fungi and parasitic worms attack them, the scales sink into the skin, the flesh becomes much paler in color and the whole fish emaciated. These fish all die as soon as the spawn is deposited, many indeed without having spawned. Those engaged in the business of canning take advantage of the Salmon ascending the rivers to spawn, and set nets to intercept them in their upward course.

As one ascends from the earth's surface the air becomes rarer, rendering breathing difficult, whilst the diminished atmospheric pressure, being insufficient to counteract the force with which the blood is sent from the heart, permits rupture of the more delicate blood-vessels, causing bleeding in parts of the body. The effects of living in such rarified air is termed "mountain sickness." Mr. Edward Whymper who recently ascended Mts. Cotopaxi and Chimborazo has related some interesting facts connected with "mountain sickness." At a height of 16,500 feet mules staggered beneath loads less than half as heavy as those they usually bore with ease. Mr. Whymper and his