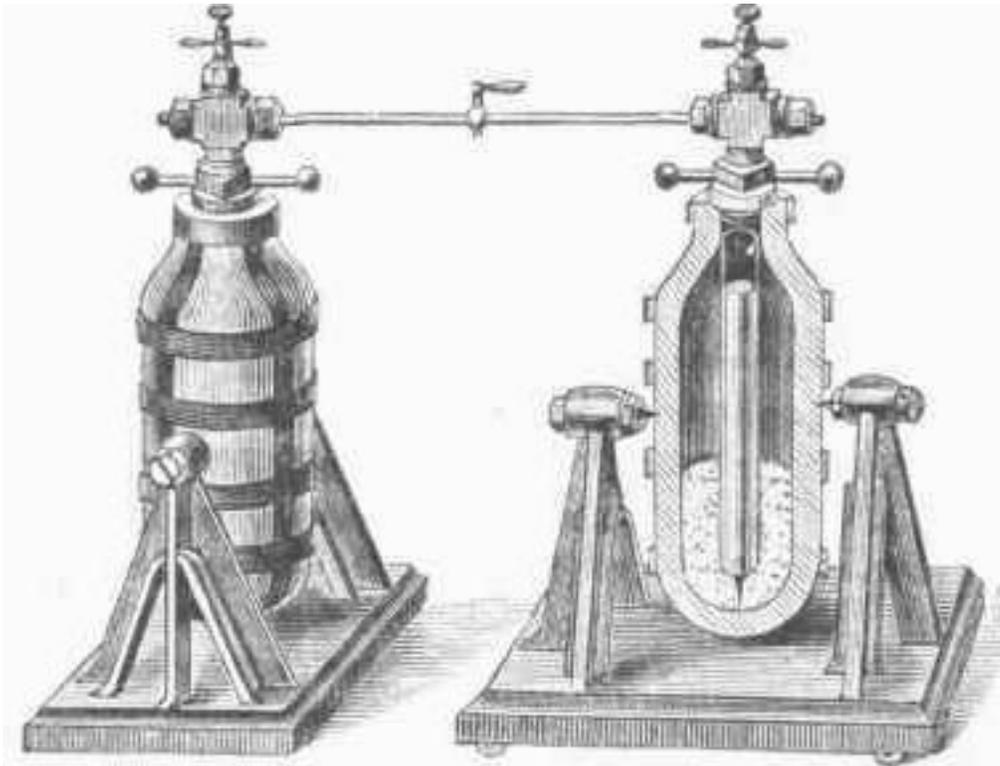


Ice and Mosquitoes

Ice is frozen H_2O , or frozen water. Dry ice is the solid form of carbon dioxide (CO_2), comprising two oxygen atoms bonded to a single carbon atom. Adrien-Jean-Pierre Thilorier was the French inventor who gave the world the earliest description of dry ice, which is colorless, odorless, non-flammable and slightly acidic. In 1834 he opened a pressurized container of liquid carbon dioxide, only to find that the cooling produced by the rapid evaporation of the liquid yielded a "snow" of solid CO_2 . An employee of the French Post Office, Thilorier also invented, among other things, a gas compressor, an oil lamp and an special apparatus for producing liquid carbon dioxide.



Thilorier's apparatus for liquefying carbonic acid

Many New Orleanians are probably unaware that dry ice is an excellent tool in mosquito control, increasing the yield of mosquito traps by attracting four to five times as many mosquitoes as just the light source used as the attractant in most traps. Mosquitoes obviously bite anything with a pulse, but the actual way they detect their prey is much more fascinating. Scientists have discovered that it is the carbon dioxide exhaled from all mammals by breathing that attracts

the mosquitoes' blood lust. The CO₂ released by "melting" dry ice tricks the insects into believing that there is an animal around worth chomping down on. It has been found that a five-pound block of dry ice will simulate the carbon dioxide output of a large mammal in one dusk-to-dawn trapping period. Some research has recommended just employing the dry ice without a light, as trap bait, which was the practice among U.S. troops in the Vietnam War.

There are about 170 species of mosquito in the continental United States, with at least 64 species in Louisiana. Each mosquito species prefers a particular host, and it is only the female mosquito that takes a blood meal. In Orleans Parish, the main species of concern are *Culex quinquefasciatus* (southern house mosquito), *Aedes albopictus* (Asian tiger mosquito) and *Aedes aegypti* (yellow fever mosquito).



Female Culex quinquefasciatus mosquito

There are probably equally large numbers of Crescent City natives who are unaware of how ice and mosquitoes came together to create the circumstances that brought about the historic Louisiana Purchase of 1803.

When First Consul Napoleon Bonaparte muscled Spain into retroceding the Louisiana Territory to France by the secret Treaty of San Ildefonso, (concluded on October 1, 1800), he had grand imperial dreams of re-establishing France's North American empire lost in 1763. The French leader's grand design envisioned all of France's Western Hemisphere components being incorporated such that each would maximize its value. He saw Louisiana as the breadbasket, or food supply colony, for Saint-Domingue (Haiti, France's richest colony and the jewel in Napoleon's dream of a Caribbean empire). Salted fish, clothing and manufactured goods were to be drawn from the Louisiana Territory to supply operations in Haiti. And in turn, sugar, indigo, rum, coffee and cotton from Guadeloupe, Martinique and Haiti would be transported back to France.

Central to this grand scheme was reasserting French colonial control over the valuable colony of Saint-Domingue. A slave revolt begun there in 1791 prompted Napoleon to send his brother-in-law, General Charles Victor Emmanuel Leclerc (married to sister Pauline), with an expeditionary force to reclaim the colony. Former slave and general Toussaint L'Ouverture had created a constitution appointing himself President for life, although he still swore loyalty to the French nation. Leclerc landed in Haiti in February 1802, with warships and a total of 40,000 troops, repeating Bonaparte's promise that "all of the people of Saint-Domingue are French" and forever free.



Haitian rebels battle French troops in Saint Domingue

The French won several victories resulting in L'Ouverture's surrender and imprisonment. However, despite his superiors' warnings, Leclerc failed to disarm L'Ouverture's officers. General Leclerc bravely faced a newly organized and empowered insurrection but fell victim to yellow fever on November 1, 1802. The successful guerilla warfare under the

leadership of Henri Christophe and Jean-Jacques Dessalines of the Haitians and the deadly mosquito-borne disease of yellow fever decimated almost the entire remainder of Leclerc's forces. General Rochambeau took command of the 7,000 or so French troops left, but was defeated by Dessalines (who proclaimed the independence of Haiti and its new name on New Years' Day, 1804). Rochambeau surrendered his army to the marauding English (preferring an English jail to certain death at the hands of the Haitian rebels).



Général Charles-Emmanuel Leclerc, Napoleon's ill-fated brother-in-law

It has been speculated that Napoleon expected a swift victory over the rebellious slaves in Haiti and to then proceed to occupy New Orleans for a re-takeover of the midsection of the North American Continent.

But things could not have been worse for General Leclerc in Saint-Domingue.

Napoleon had meanwhile named General Claude P. Victor, Duc de Bellune, captain general of Louisiana and authorized him to prepare an occupation force. But delays continued to push back the date of departure. As this arm of the French invasion force readied to set sail for Louisiana, thick heavy ice trapped the French ships in Helvoët Slus, in the Netherlands. The harsh winter of 1802-1803 kept them icebound in the harbor, preventing Victor from leaving until the spring thaw allowed his vessels to depart. All this while, it gave Napoleon additional time to think things out and to reconsider his options concerning his North American invasion plan.



Decisions, decisions.

It is extraordinary to contemplate the overwhelming power both ice and mosquitoes wielded over Napoleon's grandiose design for empire in the Americas. These losses and setbacks moved him to look forward to future military encounters with Great Britain and her allies and the need for a huge supply of cash on hand to see that through. Napoleon now saw the sale of Louisiana, no longer an asset to him strategically or commercially, as an obvious way to raise capital for future battlefield encounters.

Signed in Paris on April 30, 1803, the Louisiana Purchase Treaty acquired for the United States 828,000 square miles of land west of the Mississippi River for a mere \$15 million - or about 4 cents an acre. The fledgling United States would be a republic twice its former size, and Haiti (no longer France's immensely profitable colony) would become a republic, as well. On December 20, 1803, France turned

over New Orleans to the U.S. in the *Sala Capitular* in the Cabildo.

Napoleon commented, "Perhaps it will be objected that the Americans may be found too powerful for Europe in two or three centuries. But my foresight does not embrace such remote fears."



The American flag flies over the Place d'Armes December 20, 1803.

On July 18, 1803, General Horatio Gates exclaimed to President Thomas Jefferson:

"Let the Land rejoice, for you have bought Louisiana for a Song."

NED HÉMARD

New Orleans Nostalgia
"Ice and Mosquitoes"
Ned Hémard
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