The battle of Kettle Creek began south of the Hammett farmstead, according to Patriot Colonel Pickens. The Patriot militias, which had been following them for several days, were deployed by Pickens into three formations and advanced southward on an unsuspecting enemy. Lieutenant Colonel Elijah Clarke’s easternmost of the Patriot’s formations passed through this immediate area to attack Loyalist Major Spurgin’s formation. According to Pickens, the retreating Loyalists, "...formed across the creek on rising ground," where, "...the action was renewed more obstinately." Dooly says that, "It appeared to me that they fired over 200 guns at us in half a Minet but not withstanding they had at Least 700 men we Drove the Villens and beat them in a fair fight...".

It was "... the severest check and chastisement the Tories ever received in South Carolina or Georgia," wrote Colonel Pickens in 1811. Reports following the battle indicated that approximately 20 Loyalists were killed, about 150 were taken prisoner and about 250 escaped to Augusta. Seven of the prisoners were eventually tried and hanged. Patriot losses were seven killed and fifteen wounded. A letter of Colonel Dooly, written two days after the battle concludes, "...I am Sure that it must be nothing but the hand of Providence that Saved Colo Pickens and Colo Clark and my Self from being Kild or badly wounded as wee warr much Exposed on horseback During the whole Ingagement".

The Patriot victory at Kettle Creek prevented the British from dominating the colony of Georgia.