Refutation of Gettier problem of justified true/false belief

We assume the method and apparatus of Meth8/VŁ4 with \( \tau \) as the designated \( \textit{proof} \) value, \( F \) as contradiction, \( N \) as truthity (non-contingency), and \( C \) as falsity (contingency). The 16-valued truth table is row-major and horizontal.

LET: \& \text{And; } > \text{Imply, greater than, believes, is, knows; } = \text{Equivalent; } @ \text{Not Equivalent; } 
\# \text{necessity, for all; } \% \text{possibility, for one or some; } 
p \text{Proposition; } s \text{Subject; } (%q>#q) \text{truthity; } (%q<#q) \text{falsity; } 
(q=q) \text{tautology, justified; } [ (q@q) \text{contradiction, not justified].

From: allthatsinteresting.com/fascinating-unsolved-problems/2

Critics of justified true belief assert "it's impossible to justify anything which is not true (where "truth" is a construct designed for the sake of argument as being some irrefutable fact)."

Justified true belief is defined as:

A subject S knows that a proposition P is true if and only if:
\[ (=) \%s>(p>(%q>#q)) ; \]
\[ (4.1) \]
\[ (1.1) \] P is true,
\[ (1.2) \] \( p>(%q>#q) \);
and S believes that P is true,
\[ ([&]) s>(p>(%q>#q)) ; \]
\[ (2.1) \]
\[ (2.2) \] and S is justified in believing that P is true
\[ ([&]) (s>(q=q))>(s>(p>(%q>#q))) ; \]
\[ (3.1) \]
\[ (3.2) \] Eqs.
\[ 1.1 \text{ and } 2.1 \text{ and } 3.1 \text{ are equivalent to } 4.1. \]
\[ (((p>(%q>#q))&(s>(p>(%q>#q))))&((s>(q=q))>(s>(p>(%q>#q)))) \]
\[ = (%s>(p=(%q>#q))) ; \]
\[ (5.1) \]
\[ (5.2) \] Eq. 5.2 is \textit{not} tautologous. Therefore justified true belief is not a theorem.

To answer Eq. 0.0 we rewrite it using falsity instead of truthity to read justified false belief as:

A subject S knows a proposition is P is false if and only if P is false, and S believes P is false, and S is justified in believing P is false.

To answer Eq. 0.0, we cast Eq. 5.2 with falsity \((%q<#q)\) instead of truthity \((%q>#q)\).
\[ (((p=(%q<#q))&(s>(p=(%q<#q))))&((s>(q=q))>(s>(p=(%q<#q)))) \]
\[ = (%s>(p=(%q<#q))) ; \]
\[ (6.1) \] \[ (6.2) \]
Eq. 6.2 is not tautologous. Therefore justified false belief is also not a theorem.

This means the Gettier problem as the superset of the justified belief arguments is refuted as a problem and resolved as a non-problem.