```
iff_preserves_decidability  THM

⊢  Dec(A) ⇒ (A ⟺ B) ⇒ Dec(B)  by Unfold ‘decidable‘ 0 THEN UnivCD
|
1. A : Prop
2. B : Prop
3. A ∨ ¬A
4. A ⟺ B
⊢  B ∨ ¬B  by Analyze 3
|
|\
| 3. A
| 4. A ⟺ B
| ⊢  B ∨ ¬B  by (DNth 1 0) THEN (BackThru 4)
|
.\
. 3. ¬A
. 4. A ⟺ B
. ⊢  B ∨ ¬B  by (DNth 2 0) THEN (Analyze 0)
. |
. 4. A ⇒ B
. 5. A ⇐ B
. 6. B
. ⊢  False  by FwdThru 5 [6] THEN Trivial
END
```