```
hnum_ty_def  THM

⊢  exists(λrep:hnum → hind. type_definition(is_num_rep,rep))
| by HN THEN StrongAuto
|
⊢  ∃rep:(hnum → hind). type_definition(hind;hnum;is_num_rep;rep)
| by Inst
|     Thm* ∀'a,'b:S, P:('b→𝔹), rep:('a→'b), abs:('b→'a).
|          iso_pair('a;'b;P;rep;abs)
|          ⇒
|          (∃rep':('a→'b). type_definition('b;'a;P;rep'))
|     {type_def_iso}
|     [ℕ;ℕ;is_num_rep;rep_num;abs_num]
|     THEN
|     StrongAuto
|
.....antecedent .....
⊢  iso_pair(ℕ;ℕ;is_num_rep;rep_num;abs_num)
  by L Thm* iso_pair(ℕ;ℕ;is_num_rep;rep_num;abs_num)    {num_iso}
     THEN
     StrongAuto
END
```