In my article "Near-Ideal Nine-Letter Word Ladders" in the August 2000 Word Ways, I stated six criteria for a Connoisseur's Ladder: the technical criteria of changing all words in the minimum number of steps (in sequence), and the aesthetic ones of familiar words with apposite meanings. I found about 50 ladders which met some of the technical criteria, and perhaps none which met the aesthetic ones, though BRAWNIEST-TWINKLERS might be regarded as amusing. The case of ten-letter words is much more difficult. Compare the problem with word squares: there are thousands of nine-letter word squares, but no ten-letter word squares with straightforward dictionary words or phrases (though perhaps judicious addition of prefixes and suffixes might make the task possible). So ideal ladders are much harder to find than word squares, and we might expect to find no ten-letter examples, which is indeed the case. Indeed, I am not aware of any ten-letter ladders published, though there are undoubtedly billions if we relax the criteria sufficiently.

Below are listed the closest to ideal ladders found, with just one or two letters remaining unchanged after ten steps. There are also two ladders with three letters unchanged, because they have apposite terminal words: the dangerous INCESTUOUS AFFECCIOUN, and the game of consequences in which AFFECSIOUN leads to INSERTIONS.

Ideal ladders stretching between two heterograms are clearly rarer, not least because there are fewer than ten thousand ten-letter heterograms. Examples of ladders with three letters unchanged are listed (compare one letter unchanged for nine-letter ladders), together with a mere taster of those with four letters unchanged.

Note that some of the ladders achieve their stated results in just eight or nine steps, and in some such cases, nine steps change nine letters: asterisks or NBs indicate words that may be omitted without changing the number of letters changed by the ladder. That makes it especially grievous that there were no eleven-step ladders worth reporting, in that the results are no better than those for ten steps. There are more than ten times as many eleven-step ladders missing the ideal by just one letter, but they are merely elaborations of the ten-step ladders below. The number of interesting ladders with heterogrammatic terminals actually seems to decrease, so the ladders starting with IMBRANCHES below seem to be exceptional.

A perusal of the ladders below will reveal the few areas in which the complete net-
work of ten-letter words is highly connected. Although some groups of ladders could have been shown as a single graph, the reader would then have had to tease out all ten-step sequences with all words different.

The order of the words within the ladders below is such that the first word occurs earlier in a dictionary than the last word. Within each category of ladders, the source for a given word is given the first time only. Unless otherwise indicated, words are to be found in more than one dictionary from among the OED, Webster 2, Pulliam, OSPD, and Stedman.

deriv = derived  vf = OED variant form  obs = obsolete

Near Ideal Ladders (one letter unchanged)

1. BESPORTING (OED besport)—DESPORTING (OED desport)—DISPORTING—DISSERTING (OED dissert)—DISSERTING (OED dissert)—DISSEATING (OED disseat)—DISSEASING (OED disease, obs decease)—DISSEASING—DISSEISINS (OED disseisin)—DISSEISONS (OED under disseisin)—DISSEISORS (OED)

as 1 to DISSEATING, then —DISSEAZING (vf disseaze vb)—DISSEIZING—DISSEIZINS (vf disseizin)—DISSEIZENS (vf)—DISSEIZERS (deriv. disseize, OED)
as 1 to DISSEATING, then DISSENTING—DISSENSING (OED dissense)—DISSENSING—DISSEISINS—DISSEISONS—DISSEISORS

2. BESPORTING—DESPORTING—DISPORTING (vf deriv dissip = desparate?)—DISSERTING, then as 1 as 2 to DISSERTING, then DISSERTING, then DISSERTING, then DISSERTING, then DISSETING—DISSENSING (OED disease, obs decease)—DISSEISINS DISSEIZINS DISSEIZENS DISSEIZERS

as 2 to DISPERTING, then DISPERSG—DISPENSING—DISSENSING—DISSEISINS—DISSEISONS—DISSEISORS

1. DISSEISERS (OED under disseisor)—DISSEISORS (OED)—DISSEISONS (OED under disseisin)—DISSEISINS (OED diseisin)—DISSEISING—DISSEISSING (OED dissesion)—DISSEISSING (OED dissesion)—DISSEISSING (OED, obs dispense)—DISPENDING—DISPENDING (OED, obs dispense)—DISPENDING (OED, obs dispense)—DISPENDING—DISPENDING (OED, obs dispense)—DISPENDING etc as 2.

DISSEISORS DISSEISONS DISSEISINS DISSEISSING (OED, obs dispense)—DISPENDING etc as 1.

DISSEISORS DISSEISONS DISSEISINS DISSEISSING (OED, obs dispense)—DISPENDING etc as 2.

DISSEISORS DISSEISONS DISSEISINS DISSEISSING (OED, obs dispense)—DISPENDING etc as 1.

DISSEISORS DISSEISONS DISSEISINS DISSEISSING (OED, derived from dissessor, dissession)—DISSEISSING (OED, derived from dissessor, dissession)—DISSEISSING etc as 1.

DISSEISORS (deriv. disseize, OED)—DISSEIZENS (vf)—DISSEIZENS (vf disseizin)—DISSEIZENS etc as 1.

DISSEIZERS DISSEISINS DISSEIZINGS DISSEIZISINS DISSEIZISING DISSEIZISNG etc as 1.

DISSEIZORS (vf under disseisin)—DISSEIZORS etc as 1.

DISSEIZORS (vf under disseisin)—DISSEIZONS (OED under disseisin)—DISSEIZINS (vf disseizin)—DISSEIZING DISSEIZING etc as 1.

2. DISSEISORS (OED)—DISSEISONS—DISSEYSONS (OED, under post-disseion)—DISSEYSONS (vf)—DISSEYSING (OED, under disseise)—DISSEYSING etc as 1.

DISSEISORS DISSEISONS DISSEISINS DISSEISSING (OED, derived from disseisor, diseotion) DISSEISSING etc as 2.

DISSEISORS DISSEISONS DISSEISINS DISSEISSING (OED, derived from disseisor, diseotion) DISSEISSING etc as 1.
Near Ideal Ladders (two letters unchanged)

EMBLANCED (OED) — EMBRANCHED (OED) — ENBRANCHED (OED under imbranch) — UNBRANCHED — UNBLANCED — UNBLEACHED — UNBREACHED — UNBREATHED — UNWREATHED (OED)

EMBLANCES (OED) — EMBLANCED — EMBRANCHED — ENBRANCHED — UNBRANCHED — UNBLANCED — UNBLEACHED — UNBREACHED — UNBREATHED — UNWREATHED (OED)

EXPANDABLE — (EXPENDABLE or EXPANDIBLE (Web3 under expandable)) — (EXTENDABLE or EXPENDIBLE) — EXTENDIBLE — ENTENDIBLE — INTENDIBLE — (INVENTIBLE or INTESTIBLE (OED)) — INVESTIBLE — INVESTIGABLE — INVESTIGABLY. NB just 5 valid combinations

EXPANSIBLY — EXPANDIBLE — EXPANDIBLE — EXTENDIBLE — ENTENDIBLE — INTENDIBLE, then

— (INTENDIBLE or INTESTIBLE) — INVESTIBLE — INVESTIGABLE — INVESTIGABLY

EXPENDABLE — (EXTENDABLE or EXPENDIBLE) — EXTENDIBLE — ENTENDIBLE — INTENDIBLE — (INTENDIBLE or INTESTIBLE) — INVESTIBLE — INVESTIGABLE — INVESTIGABLY

EXPANDABLY — EXPANDABLE — EXPANDABLE — EXTENDIBLE — ENTENDIBLE — INTENDIBLE, then

— (INTENDIBLE or INTESTIBLE) — INVESTIBLE — INVESTIGABLE — INVESTIGABLY

IMPOSSIBLY — IF POSSIBLE — INPOSSIBLE (OED) — UNPOSSIBLE — PASSABLE — CASSABLE — UNCESSABLE — UNCEASABLE — UNLEAKABLE (eb2) — UNLEAKABLE

INPOSSIBLE — IF POSSIBLE — UNPOSSIBLE — PASSABLE — CASSABLE — UNCESSABLE — UNCEASABLE — UNLEAKABLE

IFPOSSIBLY (OED) — IF POSSIBLE — INPOSSIBLE (OED) — UNPOSSIBLE — PASSABLE — CASSABLE — UNCESSABLE — UNCEASABLE — UNLEAKABLE

Near Ideal Ladders (three letters unchanged) — one example

6 ladders starting AFFEC:

AFFECCIOUN (vf) — AFFECTIOUN (vf) — AFFECTION — AFFECTIOUS — AFFECTIONS (OED) — INFECTIONS (OED under infection) — INFECTIONS — INJECTIONS — INJECTIONS (OED) — INJECTIONS. NB one of affecsioun or affectioun is not necessary; and these two words may be reversed.

AFFECCIOUN or AFFECTIOUN — AFFECTIOUN — AFFECTIOUS — AFFECTIONS — EFECTIONS — INFECTIONS — INFESTIOUS (INFESTIOUS or INFECTIOUS) — INFESTIOUS (OED) — INFESTIOUS (OED)

Ladders between heterograms, but with three letters unchanged

9 ladders starting with IMBRANCHES:

1. IMBRANCHES (OED) — INBRANCHES (OED under imbranch) — ENBRANCHES (OED under imbranch) — (UNBRANCHES (Sted) or ENBRANCHED (OED under imbranch)) — UNBRANCHED — UNBLANCED — UNBLEACHED — *UNCLENCHED — UNFLENCHED (OED) — UNFLETCHED (Web2) — UNFLANTED (Web2) NB enbranches is not necessary if unbranches follows; in which case, if unclefted be omitted, 8 steps change 7 letters.

as 1 but — INBRANCHED — ENBRANCHED — as words 2 and 3

as 1 but — IMBRANCHED — EMBRANCHED — ENBRANCHED — as words 3 to 5

as 1 but — IMBRANCHED — EMBRANCHED — ENBRANCHED — as words 2 to 4

2. IMBRANCHES — INBRANCHES — ENBRANCHES (OED under imbranch) — *INBRANCHED (OED under imbranch) — UNBRANCHED — UNBLANCED — UNBLEACHED — UNFLENCHED, then as 1.

as 2 but — UNBRANCHES — ENBRANCHES — ENBRANCHES — as words 3 to 5

as 2 but — IMBRANCHED — EMBRANCHED (OED) — as words 2 and 3

as 2 but — IMBRANCHED — INBRANCHED — ENBRANCHES — *UNBRANCHES — as words 2 to 5

Ladders between heterograms, but with four letters unchanged (samples)

BESPOTING (OED) — DESPOTING (vf) — DESPORTING (OED desport) — DISPORTING — DISTORTING — DISTURBING — DYSTORBING — DESTORBING — DESTURBING — DYSTURBING (The last five words are in the OED under disturb)

BESHOUTING — BESPOTING — DESPORTING — DISPORTING — DISPARLING (vf) — DISPARTING (OED) — DISPATCHING (OED) — DISPACHING (OED) — DSPACHING (vf) — DYSACHING (vf)

BESPENDING — DESPENDING — DESPORTING — DISTORTING — DESTORBING — DESTURBING — DYSTURBING (OED under detour) — DYSTORBING (vf) — DYSTURBING — DYSTURBING