

THE HEPTCAT PERSPICUOUS PALINDROME PRODUCER

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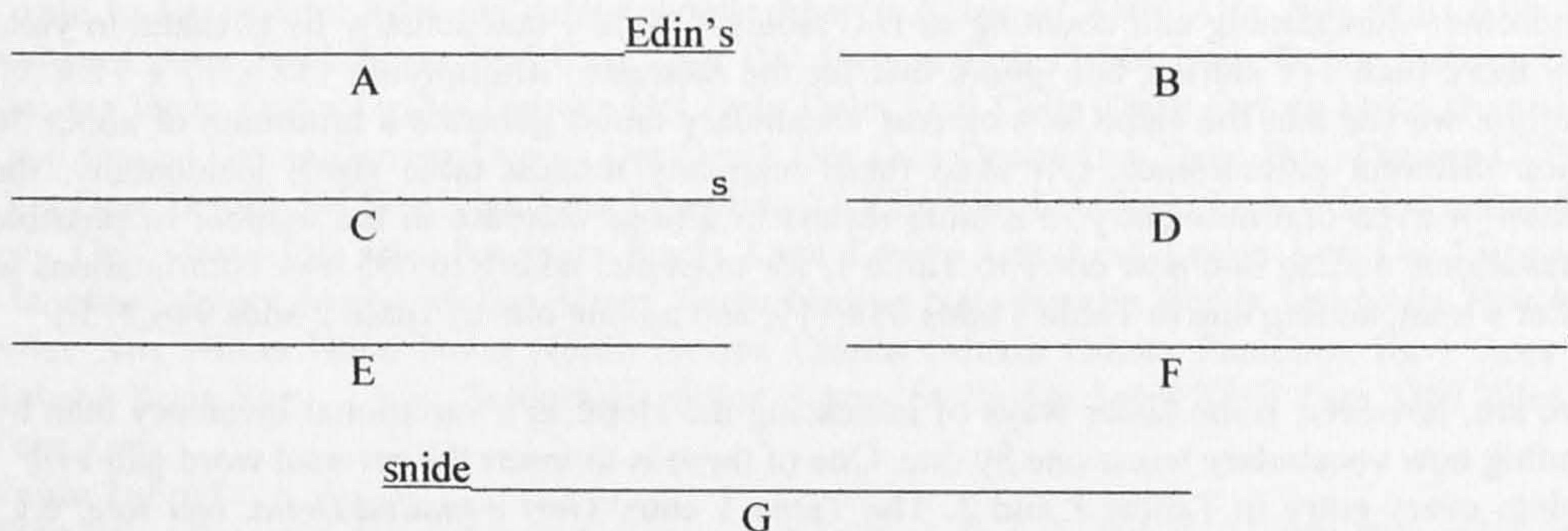
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Over the years, various ideas for the mechanical generation of palindromic sentences have been published in *Word Ways*. Of these, the simplest in concept may have been Dave Morice's Palindromic Slide Rule (August, 1995). This device separates palindromic passages into paired segments comprised of single reversal words; by shifting the positions of columns of such words with respect to one another in slide rule fashion, users can generate up to 10,000 different palindromic passages.

A similar approach to the formularized synthesis of palindromic passages is taken by the latest contrivance in this line, the **HeptCat Perspicuous Palindrome Producer**. Like the Slide Rule, the HeptCat is easy to use and works by dividing palindromic passages into independently variable segments or segment pairs. But unlike the slipstick, the HeptCat:

- has seven segments rather than eight
- permits its segments to consist of any number of words, rather than just one word; this innovation makes possible a much larger selection of vocabulary choices, which in turn enables the formulation of fully grammatical (i.e., "perspicuous") sentences
- provides for two of its segment pairs to share a common vocabulary menu
- has no moving parts

To operate the HeptCat, first draw seven horizontal lines, in any consecutive arrangement, on a piece of paper. Next, label the lines serially from A to G, write an *s* at the end of line C, and put a comma at the end of line F. Optionally, also write *Edin's* at the end of line A and *snide* at the beginning of line G. (These two words are not essential to the palindromes, but they do often seem to improve the flow of the sentences.) Your layout might now look something like this:



Now simply fill in the blanks. From Table 1, select any horizontal pair of entries to write on lines A and G. Next, select any horizontal pair of entries from Table 2 for lines B and F, and then choose another such pair from the same table for lines E and C. Lastly, select an entry from Table 3 to use on line D; if this entry contains quotation marks, enclose the entire passage in

quotes. Except for any other punctuational adjustments which may seem necessary or desirable, your HeptCat Perspicuous Palindrome will now be complete.

Here are some typical examples of HeptCat palindromes; if they seem, on the whole, not to describe any especially coherent sets of circumstances, at least they are reasonably grammatical, correctly spelled and palindromical—not a bad score for a cat:

Amiced Deva resined reborn, oily, raw eudemons as Asa's Nome-due, wary lion-rober, Denise, raved "Decima!"

A "mot snob," nob Delia tersely galled Edin's avid, retiled, emir-gassed ode-rimers ere Vere's remired, Odessa-grimed "eliter" diva, snide Della Gyles, retailed bonbons to Ma.

A robed Del fined bad bards even as, Ion, Illinoisan Eve's drab dab Deni fled Debora.

Deidre, Gallipoli saved Edin's reined, moody, raw "decaf ruffians"; but Stub's naïf, fur-faced, wary doom-denier, snide Dev, a silo-pillager, died.

"Genial amah Denna caned Edin's red, ired, sore divas?? A drag," Nat says on Nosy, "as tan Garda's avid Eros-derider, snide Dena, canned ham Alain, e.g."

If fit, Delia trailed insanely timid, retinue-loved Urgan desuetude-revelers, alienating Nita; despite Tip sedating Nita, Neila's relevered, Ute-used, nag-rude vole-uniter, "Dimity Len," a snide liar, tailed Tiffi.

"Nels nips 'arid, avid' lager-tub tilers, Enos," asserts idyllist sap Nan, past silly distress, "as one's 'relit-but-regal' diva, Dira, 'spins' Len!"

Raw, Adelia webbed Edin's retoned, sexy royal lager-decalcifiers; drawn in, Ward's reific, laced, regal lay oryxes-denoter, snide Deb, bewailed a war.

"Rot! A renegade reviled, 'if fat,' rewalled, deli-fed ogre-diaperers, 'Massa' Mel?" derided a mopy, pomaded, ired Lem, as Sam's re-repaid (ergo "defiled"?) dell-awer Taffi delivered a generator.

"Yes, vile Madelina spins tart, ferret-tuckered, red, arty, timid, now-nude villagers," I moan, sad, "as Naomi's regal-lived, unwon dimity trader, Derek Cutter—reft rat!—snips anile Dame Livsey!"

Just how many such perspicuous palindromes the HeptCat can produce is a question with several qualified answers. As presently constituted, the HeptCat's vocabulary Tables 1 through 3 contain 111, 77 and 55 entries respectively, with Table 2—since it is used twice in building a palindrome—functioning and counting as two tables. (Table 1 can actually be tweaked to yield many more than 111 entries, but ignore that for the moment.) Multiplying $111 \times 77 \times 77 \times 55$, therefore, we see that the HeptCat's current vocabulary tables generate a minimum of about 36 million different palindromes. (At even these relatively modest table sizes, incidentally, the addition of even one new entry to a table results in a huge increase in the number of possible permutations: adding one new entry to Table 1, for example, adds 326,095 new combinations to the Cat's total, adding one to Table 3 adds 658,119, and adding one to Table 2 adds 946,275.)

There are, however, some faster ways of increasing the HeptCat's variational inventory than by accreting new vocabulary terms one by one. One of these is to insert the reversal word pair *evil/live* into every entry in Tables 1 and 2. The Table 1 entry *Gert e-mailed/Delia, met Reg*, e.g., would become *Gert e-mailed evil/live Delia, met Reg*, the Table 2 entry *Nome-due/eudemon* would become *Nome-due, evil/live eudemon*, and so forth. Such *evil/live* insertions would double the number of entries in the two tables, and reversing the order of the two words would triple them, thereby boosting the number of potential HeptCat variations to about 977 million.

A suite of other quick multipliers is built into Table 1. Note that this table has been divided into nine groups labeled 1A through 1I, and that the last eight groups, 1B through 1I, have each been

subdivided by dotted vertical lines into six columns labeled a, b, c, c', b' and a'. The terms in these eight groups can be manipulated to form new entries in four different ways:

- Within each of these groups, the terms in linked columns (column b terms, e.g., are linked to their column b' counterparts, and so on) may be reassorted in the same manner as is done with linked segment pairs in the main palindrome.
- In group 1C, all column b words can trade places with their column b' counterparts, thus doubling the number of possible combinations in that group.
- In groups 1D through 1I, all column b and c terms can trade places as a unit with their column c' and b' counterparts, thereby tripling the number of possible combinations in those groups.
- Any of the column a and a' term pairs in groups 1D through 1I can be used with any of the entries in those eight groups. Thus, the number of possible combinations which could be derived from group 1D, for example, would be calculated as $25 \times 6 \times 6 \times 3 = 2700$.

If all such possible permutations are counted, the potential number of entries in Table 1 increases to 12,232, and this, along with the aforementioned *evil/live* multiplier, hikes the HeptCat's current variational capacity to a respectable 107.7 billion. But that is still not the maximum; remember that all HeptCat palindromes can be written both with and without the *Edin's/snide* reversal pair, meaning that the Cat's present permutational potential is actually double that amount, or about 215.4 billion different palindromes. (Astonishingly, when the HeptCat's combinatorial capacity is reckoned in this manner, the addition of a single new entry to its Table 3 results in about a 3.9 billion increase in its repertoire of variations.) These totals are of no particular significance, however; because all of the HeptCat's vocabulary tables are open-ended and more or less endlessly augmentable, there is really no apparent limit to the number of possible HeptCat palindromes.

HeptCat fanciers who would like to compose language of their own to use in it can doubtless assess for themselves the various semantic and syntactic requisites for entries in each of its vocabulary tables. One rule which might not be very obvious is that in order to avoid potential confusion arising from the repetition of names in the palindromes, no personal name should appear in more than one table. For the benefit of HeptCat vocabulary-writers who might want to preserve this separation of names, here is a listing of all of the first names used thus far in each table:

Table 1: Adam Adel Adelaide Adelia Adelle Aharon Aidan Al Alain Alex Alis Alois Alys Axel Aylward Babs Bard Biron Bud Cass Dag Dal Damon Deb Debbi Debi Debor Debora Debra Decima Dede Dedra Deidra Deirdre Del Dela Delia Dell Della Delle Delora Delta Demi Dena Deni Denise Denna Denney Dennis Der Derek Des Desi Desiré Dev Deva Devi Devora Di Dines Dira Dom Dot Eb Ed Eda Eden Edin Edna Edo Eli Elia Elin Ema Enid Erek Eris Ernie Evi Evita Evy Gert Gram Iola Isac Iva Ivars Kaela Lana Lavina Len Levi Levon Lex Lin Livsey Ma Madelina Margot Melba Melina Moira Nadia Nadine Nata Natalie Nedda Nel Nella Nels Neva Niles Nils Ninon Nobe Nona Norah Norina Odella Odessa Odetta Pamelina Ravi Rees Reg Robena Roda Ros Seton Silas Solon Stacey Stella Stu Syllas Taffi Tara Tiffi Tiler Tod Tom Yves

Table 2: Fred

Table 3: Afton Alf Allan Anais Ann Asa Cal Delbert Deloris Edi Egan Elli Elsa Enola Enos Esteban Etta Eva Eve Frank Garda Gena Harpo Ion Isa Ivan Larissa Leif Lem Lena Levin Lisa Lyssa Meg Mel Nan Nanette Naomi Nat Neila Nerissa Neville Nigellas Nike Nina Ninetta Nino Nissa Nita Nola Ole Oprah Reba Reva Rex Rosa Ross Russel Sadira Sal Sam Sari Seth Siana Sid Stan Stub Swen Syl Teresa Tessa Tip Tressa Ursa Ursala Vera Vere Ward Wendel

Personal names are essential to the HeptCat's function, and for stylistic and traditional reasons forenames are preferred to surnames. None of the forenames used in these tables was invented; all of the less familiar ones may be found, as spelled, in one or more of these sources: *Webster's Biographical Dictionary* (Merriam, 1971); *Webster's Dictionary of First Names* (Ottenheimer, 1981); and *10,000 Baby Names* by Bruce Lansky (Meadowbrook, 1985).

Regarding some of the other words in the HeptCat's vocabulary: *bane*, *barb*, *bard*, *bid*, *bide*, *carol*, *fat*, *hat*, *knap*, *pale*, *rail*, *taw wise* and *wive* all have dictionary definitions as transitive verbs which could, imaginatively at least, describe an action of one person on another; *raved*, *rimed* and *wailed* would presumably be followed in the palindromes by material in quotes (e.g., "...Delia raved 'Levon!'") when they do not occur at the end of a clause; and *aleak*, *drawly* and *Illinoisan* are in Web3, as is *sleeker* as a noun.

HEPTCAT TABLE 1

Gp	No	Line A	Line G
	1	Debbi fled	Del, fibbed.
	2	Debbi jailed	Delia, jibbed.
	3	Deb bossed	Des, sobbed.
	4	Deidre, Gallipoli saved	Dev, a silo-pillager, died.
	5	Del brawled amid	dim Adel, warbled.
	6	Del brawnily sworded amative, derisively-wed	dewy Levi, sired Evita. Made drowsy, Lin warbled.
	7	Delia's sawbones, "Ebon Axel," defiled	deli-fed Lex, an obese nob, wassailed.
	8	Delia wrote "Fat!" on slender . . .	red Nels, "Not a <u>fetor</u> ?" wailed.
	9	Deni pled as Axel, a "deil," paroled	Delora, plied Alex as Adel pined.
	10	Deni polled	Dell, opined.
	11	Denna timed	Demi, tanned.
	12	Denney and Edna Mott e-mailed . . .	Delia, met Tom--and Edna yenned!
	13	Dennis--no man!--nickered at	tad Erek Cinnamon, sinned.
	14	Destitute in Reno, Di bided	Dedi, bid on-- <u>Ernie</u> ?? (Tut, it's <u>Ed</u> !)
	15	Devora robed	Debora, roved.
	16	Drawly Adelle, fat, led	Delta, felled Aylward.
	17	Enid and Eb mobbed	Deb, bombed Nadine.
	18	La! Renegades suckered	Derek, cussed a general.
	19	Lex, a "snug nut," saddens salable .	Elba lass Nedda, stun-guns Axel.
	20	Mad, Adelaide railed at	tad Elia, redialed Adam.
	21	Nadia swats red-nailed, rat-sad . . .	dastard Eli Anders, taws Aidan.
	22	No loss! Reg gats sore-ridden, mad .	"damned dire" Ros, staggers Solon.
	23	Norah, a decider, dried	Deirdre, diced Aharon.
	24	No smart animal, Stella Gibbons (gad, no "star"!) notes	Seton, rats on Dag's "nob"--Big Al! Let's lam in a tram, son!
1A	25	Raw, Adelia webbed	Deb, bewailed a war.
	26	Rot! A renegade reviled, "if fat," .	Taffi, delivered a generator.
	27	Selina, Nella and Edna Allen demanded I bar	"Rabid Ed," named Nella and Edna Allen "aniles."
	28	Slender Eel freed mid-level	level Dim Deer, fleered Nels.
	29	So, rat! <u>Deb</u> burgled	Del, grubbed taros.
	30	Stable, Neva garbed	Debra, gave Nel bats.
	31	Stressed, Eda mimed	Demi, made desserts.
	32	Stu?? Nae, profane bordel leman <u>Eden</u> , nuts, led	Del, stunned, enamelled Robena for peanuts.
	33-40	[Able Melina/Anile Melba] [snips/ spots/spins/stops]--ye cats!--	Stacey, [spins/stops/snips/spots] [anile Melba/able Melina].
	41-42	A [Rio] "mot snob," nob Delia tersely galled	Della Gyles, retailed bonbons to Ma [Moir].
	43-46	Delia [batted/fatted/hatted patted] olive	evil Odetta, [bailed/failed/hailed/ pailed].
	47-50	Delia [amassed/harassed/passed/ sassed] olive	evil Odessa, [Ma ailed/Ra hailed/ pailed/sailed].
	51-54	Deva [carded/larded/warded rewarded]	Dedra, [caved/laved/waved/"'We??'" raved].
	55-56	[Devi jibed / Debi jived]	[Debi, jived / Devi, jived].
	57-58	[Di hailed / Delia hid]	[Delia, hid / Di, hailed].
	59-60	If fit, [Delia/Demi] trailed insanely timid	"Dimity Len," a snide liar, [tailed/ timed] Tiffi.
	61-64	Yes, vile Madelina [snips/spots/ spins/stops] tart, ferret- tuckered	Derek Cutter--reft rat!--[spins/stops /snips/spots] anile Dame Livsey.

HEPTCAT TABLE 1 (cont.)

Gp	No	Line A			Line G		
		a	b	c	c'	b'	a'
1B	65	Alois	bats	amenable	Elban Ema,	stabs	Iola.
	66	Avis	knaps	amiced	Decima,	spanks	Iva.
	67	Dines	maps	, anon,	Nona,	spams	Eni.
	68	Ivars	nips	anal	Lana,	spins	Ravi.
	69	Ives	pans	anile, damnable .	Elban Madelina, .	snaps	Evi.
	70	Nels	paws	adornable	Elban Roda,	swaps	Len.
	71	Niles	pins	robed	Debor,	snips	Elin.
	72	Nils	pots	, if fit,	Tiffi,	stops	Lin.
	73	Silas	taws	derogative	Evita, gored, . . .	swats	Alis.
	74	Sylas	tops	Eilatan	Natalie,	spots	Alys.
75	Yves	wets	arid	Dira,	stews	Evy.	
1C	76	Alois	bans	, baby, raw	wary Babs,	nabs	Iola.
	77	Avis	bats	ill-awarded	Dedra Wallis, . . .	tabs	Iva.
	78	Dines	draws	ired, emanative .	Evita-named Eris,	wards	Enid.
	79	Ivars	gats	sacred, new-mode .	Edom-wender Cass,	tags	Ravi.
	80	Ives	mars	, or "gums,"	smug Ros,	rams	Evi.
	81	Nels	nips	(or guns!)	snug Ros,	pins	Len.
	82	Niles	pats	or reloops	spooler Ros,	taps	Elin.
	83	Nils	pits	or repeels	"sleeper" Ros, . . .	tips	Lin.
	84	Silas	pots	, or revats,	staver Ros,	tops	Alis.
	85	Sylas	repats	(or rekeels!) . . .	sleeker Ros,	tapers	Alys.
86	Yves	retaws	, or redips,	spider Ros,	waters	Evy.	
		a	b	c	c'	b'	a'
1D	87	Adornable	Debbi	barbed	Debra,	bibbed	Elban Roda.
	88	Aleak,	Dedra	bled	Del,	barded	Kaela.
	89	Amenable	Dela	bailed	Delia,	baled	Elban Ema.
	90	Amiced	Delle	baned	Dena,	belled	Decima.
	91	"Anile-Map"	Denna	binned	Denni,	banned	Pamelina.
	92	An iron	Der	bade	Eda,	bred	Norina.
1E	93	A nival	Dal	ceded	Dede,	clad	Lavina.
	94	A rat,	Dedra	called	Della,	carded	Tara.
	95	A robed	Delora	caned	Dena,	caroled	Debora.
	96	A tan	Denna	cerised	Desiré,	canned	Nata.
1F	97	Drab	Del	failed	Delia,	fled	Bard.
	98	Dub	Delle	fanned	Denna,	felled	Bud.
	99	Gad!	Denni	fined	Deni,	finned	Dag.
1G	100	Ebon	Deva	paled	Dela,	paved	Nobe.
	101	If fat,	Delora	palled on awed	dewan Odella, :	paroled	Taffi.
	102	Nomad	Debor	passed over .	Rev. Odessa, :	probed	Damon.
	103	Genial amah:	Denna	pinned	Denni,	panned	ham Alain, e.g.
1H	104	Novel	Debbi	reded	Dede,	ribbed	Levon.
	105	Non-"in"	Demi	railed	Delia,	rimed	Ninon.
	106	No rib!	Deva	resined	Denise,	raved	Biron.
	107	Reknit,	Devi	rode	Edo,	rived	Tinker.
1I	108	Relit,	Dedra	waled	Dela,	warded	Tiler.
	109	Seer	Delia	walled	Della,	wailed	Rees.
	110	Slender	Desi	waved at raw .	Wart, a deva, :	wised	red Nels.
	111	To Gram:	Devi	wined	Deni,	wived	Margot.

HEPTCAT TABLE 2

	Lines B,E	Lines F,C
1	avid	diva
2	bad	dab
3	drab	bard
4	naif, fur-faced	decaf ruffian
5	Nome-due	eudemon
6	reborne, avid	diva-enrober
7	reborn, oily, raw	wary lion-rober
8	recaptured, undermined, nude-domed	démodé (<u>dun</u> denim??), red, nude rut-pacer
9	recast, set	tests-acer
10	red, arty, timid	dimity trader
11	redecorated, underrated	detarred nude taro-ceder
12	rediced, Seuss-ired, dogged, ablative-tiled, elder	red-led, elite, vital, bad-egg odder- issues decider
13	red, ired, sore	Eros-derider
14	red (if no "cerised dame"), sore	erose mad-desire confider
15	red-named, regal, redder, rotunder	"red" nut, or redder-lager demander
16	red- or ebon-shaded, hale, durable	Elba-rude "lah-de-dah snob"-eroder
17	red or "eerie"	Eire-eroder
18	red, raw, ajar	raja-warder
19	red, rawboned, unsung	gnus-nude nob-warder
20	redrawn, oily, rare, tilted, acned, allied	deil-laden cadet literary-lion warder
21	refilling, nidal, gnu-drawn ("ignitable," eh, too, Fred?), nuder, unitary, raw	wary, rat-inured, underfoot ("heel-biting in war") dung-lading nil-lifer
22	regal-lived, unwon	now-nude villager
23	regrets-bared, nag-derided, ulcer-prone, tragic-enow, enfiladed	dedal-if-new, one-cigar, "tenor-pre- cluded"(?) ired gander-absterger
24	reific, apropos	sopor-pacifier
25	reific, laced, regal	lager-decalcifier
26	reific, lacy, tied	deity-calcifier
27	reified, sore	Eros-deifier
28	reined, moody, raw	wary doom-denier
29	rekilned, dim, detonable	Elba-noted midden-liker
30	reknit, enraged, ungirt	trig nude garnet-inker
31	reknit, "smarter"(?), eve-slaving, nil-lived, drab	bard-devilling, nival, severe tram- stinker
32	relaid, repaid, denim-remade	Edam-ermined diaper-dialer
33	relevered, Ute-used	desuetude-reveler
34	reliable, snug	gungel-bailer
35	reliant, racy, reviled	delivery-cart nailer
36	relieved, undeliverable	Elba-reviled nude-veiler
37	relit (but regal!)	lager-tub tiler
38	remired, Odessa-grimed, eliter	retiled, emir-gassed ode-rimer
39	remitting, niggardly, nival, agnailed	Delian-gala, vinyl-dragging nit-timer
40	re-repaid (ergo defiled?)	deli-fed ogre-diaperer
41	re-revered, open-air, odder, refed	deferred Dorian epode-reverer
42	re-reviled ("Silly ram!"), aloof, mad	damfool amaryllis-deliverer
43	rerun-in-Italy, mired-in-soot	too-snide rimy Latin-inurer
44	resoled, Ute-derided, ired	derided, ired étude-loser
45	retoned, sexy, royal	lay oryxes-denoter
46	retooled, older, ranker	reknarred lode-looter
47	reunited, snug, raw	war-guns detinuer
48	revolting, nival, non-deltoid, ignitable, snug	gungel-biting, idiot-led, non-laving nit-lover
49	rewalled	dell-awer
50	rewon, kobold-evolved	dev-loved lobo-knower
51	rotatively arty, zoo-bred, icy, raw	wary, cider-boozy tray-levitator
52-53	red, raw[er]-livered, welded, ired, avid	diva-derided, lewder evil-[re]warder
54-56	renacred, [new/raw/rawer]	[wender/warder/rewarder]-caner
57-59	[resuable/reusable/revilable]	Elba-[user/suer/liver]
60-77	retinue-[laded/laved/loved/lured/raced/ robed/owed/tamed/tired] [Urgan/ urceolate, spun-up]	[nag-rude/pun-upset, aloe-crude] [dale /vale/vole/rule/care/bore/woe/mate/ rite]-uniter

HEPTCAT TABLE 3

Line D

1	, alas, Russel," nude Levin sniveled, "unless Ursala's
2	, alienating Nike; Esteban (on a bet) seeking Nita, Neila's
3	, alienating Nina; for, profaning Nita, Neila's
4	, alienating Ninetta; free beer fattening Nita, Neila's
5	, alienating, Nissa, Prussian Anais; surpassing Nita, Neila's
6	, alienating Nita; Cal placating Nita, Neila's
7	, alienating Nita; despite Tip sedating Nita, Neila's
8	, alienating Nita; Gena negating Nita, Neila's
9	, alienating Nita; Reba berating Nita, Neila's
10	, alienating Nita!" rips Ann, aspirating "Ni-ta"; "Neila's
11	, alienating Nita; timid Leif Field imitating Nita, Neila's
12	alone, ere Enola's
13	alone, Rex, ere Nola's
14	, Anais," said Edi, "as Siana's
15	as, Ann, NASA's
16	as Asa's
17	as, ere ten, an inane Teresa's
18	as ill Lisa's
19	as, leonine Nino, Elsa's
20	as ornate, tan Rosa's
21	as rude red Ursa's
22	, " asserts a "knar-free seer," Frank, "as Tressa's
23	as, Seth, Tessa's
24	as, Sir Alf, Larissa's
25	as siren Nerissa's
26	, " avers an avid Ivan, "as Reva's
27	, but Stub's
28	, " drawled new sage Meg, "as Wendel Ward's
29	; drawn in, Ward's
30	, Elli," vents Afton, sad, "as 'Not-Fast Neville's'
31	, Enos," asserts idyllist sap Nan, past silly distress, "as one's
32	ere vedette Nanette DeVere's
33	ere Vera Revere's
34	ere Vere's
35	ere vernal lad Allan Revere's
36	, Erie's amazing Nigellas is alleging, Nizam, as Eire's
37	even as, Ion, Illinoisan Eve's
38	even if, Lena, an elfin Eve's
39	, " I moan, sad, "as Naomi's
40	, Lyssa," attests Etta, "as Syl's
41	, 'Massa' Mel," derided a mopy, pomaded, ired Lem, "as Sam's
42	, Nat," swore Swen, "as, anew, 'Serow Stan's'
43	, " notes a treble demon, greyer gnome Delbert, "as Eton's
44	; a drag," Nat says on <u>Nosy</u> , "as tan Garda's
45	, Oprah," said I, "as Harpo's
46	, " remarks an aged Egan, "as Kramer's
47	; revolted, a cadet-lover's
48	, " said Sadira, arid, "as Dias's
49	, Sir Ole," drones Sal, "as, señor, Deloris's
50	, so Ross'
51-55	as ired [name-demander/neb-bender/nerd-render/nest-sender/net-tender] Isa's